Appendix 1: The methods of electrode placement

Electrode location	Electrodeposition met	hod/ Number of studies
Point A: 3-5 cm above the med malleolus	Method 1 _AC	TTNS
or ankle (width of 3 fingers)	14 studies	A DA DA
Point B: less than 3 cm above the medial		
malleolus	Method 2 _BC	
Point C: Around the medial malleolus	6 studies	
Point D: More than or equal to 5 cm above		
the med malleolus		
Point E: On the arch of the foot in the	Method 3 _AE 10 studies	
middle part of the sole in the heel bone	To studies	1 2
Point N: Related to unknown points etc. in		
the path of the tibial nerve in the leg		
	Method 4 _BE 4 studies	(the set
	- studies	- ser
	Method 5 _DC	
	10 studies	
		56
	Method 6	
	AN, BN, CE,BD, EE 17 studies	
	17 studies	Aiten,

Row	Author , year and reference	Result
1	Mathieu 2017(58)	The visual analog scale (VAS) score above 50% showed no significant difference between the diabetic group (70% vs. 44.1%, p=0.17) and the two groups (4.10 vs. 4.10, p=0.98). After two months of treatment, the score on the urinary symptoms profile (USP) questionnaire reduced significantly in both groups (-3 scores in the diabetic group, -1.9 scores in the non-diabetic group, p=0.030 and p<0.001, respectively). Except for the patients whose treatment was stopped after 6 months, there was no significant difference between groups. This difference was greater among diabetic patients (100% vs. 63.5%, p=0.04). The functional results of the TTNS in the OAB treatment seem to be similar between the diabetic and non-diabetic patients.
2	Ragab 2015 (68)	At the end of the treatment, the VAS score and daily voiding frequency rate reduced and the mean urine volume increased. There was no statistically significant difference in the ICPI scores (p=0.927) between weeks 0, 6, and 12 (p=0.937). As regards the GRA score, 85% of patients reported having no effect, 5% reported having worse symptoms, and 10% reported having a mild good response. Intermittent PTNS is not a satisfactory treatment for refractory IC/BPS.
3	Van balken 2003 (46)	A subjective response was observed in 42% of patients. The mean VAS score was less than 3 in 21% of patients. The 36- item Short Form Health Survey questionnaire (SF-36) showed the overall pain intensity to have a significant improvement. Despite the very low overall success rate and the need for controlled studies with placebo, PTNS may have a place in the treatment of patients with chronic refractory pelvic pain.
4	Rio-Gonzalez 2017 (51)	The data confirmed the high effectiveness of PTNS in improving the OAB symptoms by 24 months. Moreover, frequent urination during the day and the first sensation of bladder filling are considered important factors in the PTNS success.
5	AMARENCO 2003 (47)	The PTNS has an objective effect on urodynamic parameters. Improvement of OAB caused the PTNS to be suggested as a non-invasive therapeutic method at the bedside.
6	Klingler 2000 (55)	Pain (VAS) is reduced in patients. The urodynamic evidence of bladder instability faded in 76.9% of patients. The average total bladder capacity (TBC) and bladder volume during voiding increased in all patients. No side effects were observed in treatment. Peripheral neuromodulation of the S3 region can treat patients with urgency-frequency in OAB syndrome.
7	De Gennaro 2004 (50)	The pain VAS score decreased. Most cases of urinary incontinence were cured. The symptoms improved in 71% of the children with urinary retention. In 65% of patients who regained bladder control, the cystometric capacity of the bladder was normal and there were no more unstable contractions. No significant change was observed in the urodynamic and symptoms in the neuropathic bladder group. The PTNS is safe, minimally painful and feasible in children. PTNS seems to be helpful in the treatment of refractory nonneurogenic LUTS.
8	MacDiarmid 2010 (56)	Patients showed improvement in overall subjective response, frequency of daily voiding and urge incontinence. A significant improvement was observed in the OAB questionnaire symptoms severity from 3 months to 12 months (p <0.01), as well as from 6 months to 12 months (p<0.01). The mean voiding volume improvement was 39 cc (p<0.05). No significant side effect was observed. The OAB symptoms improved significantly with 12 weeks of PTNS treatment sessions and this improvement lasted for up to 12 months. The results of this study indicate the effectiveness of PTNS as a stable and long-term treatment in OAB.
9	Onal 2012 (59)	There was a significant reduction in urinary frequency, urgency, urge incontinence, and the pad test score, and an increase in the patient's fluid intake. Despite its positive effects on bladder diary, pad test, and QOL in OAB syndrome, PTNS has no effects on bladder circulation.
10	Vanbalken 2001(46)	There was a statistically significant reduction in the frequency of urine leakage, number of pads, and frequency of urine voiding. The QOL of patients, especially patients with OAB improved. The mean volume of urine voided showed a statistically significant increase. Only mid-side effects were observed. The PTNS is a successful therapeutic non-invasive method for patients with certain types of lower urinary tract dysfunction.
11	Peters 2012 (28)	There was a significant improvement in urinary frequency, urge incontinence frequency, urinary emergency, and in the scores of symptoms severity and QOL of OAB and health-related questionnaire. Some mild side effects of unknown relationship to treatment were reported. PTNS with 1.3 treatments per month is a long-term safe, durable and valuable therapeutic method to significantly maintain the clinical control of the OAB symptoms.
12	Van Balken,et al 2006 (62)	Sexual dysfunction is observed in most of the patients with lower urinary tract dysfunction, which may be improved in the recent successful treatment.
13	Zhao 2004 (70)	No significant change was observed in the pain scores, urine voiding frequency, urine volume, and the scores of ICPI, ICSI, and SF-36. However, an improvement was observed in some patients. The treatment had no side effects. Intermittent PTNS has no significant clinical effect on patients with refractory IC during 10 weeks.
14	van der Pal 2006 (63)	After stopping treatment for 6 weeks, the frequency and severity of incontinence worsened significantly (p<0.05). After retreatment, the number of incontinence episodes, incontinence severity, as well as the QOL improved significantly (p<0.05). The mean voided volume was significantly worsened and it was significantly improved during the retreatment period (p<0.05). Continued treatment is considered necessary in OAB patients who have been successfully treated with PTNS. The PTNS can be made effective again in patients who have already been successfully treated.
15	Yoong 2013	Daily incontinence frequency and daily urge incontinence frequency during 2 years were statistically similar to the recorded cases within 6 weeks and remained less than the baseline level. No side effects other than hypoesthesia were

	(65)	reported. Women who received PTNS for refractory OAB syndrome during 2 years, reported significant symptom relief. PTNS is an excellent safe durable therapeutic method in the second line of treatment.
16	Zhao 2008 (69)	No statistically significant improvement was observed in VAS. The scores of ICPI, ICSI, and SF-36 were improved significantly. No significant difference was observed in the diary index and SF-36 scores between the two groups and before and after treatment. Out of 18 patients, the bladder volume had a statistically significant improvement in 8 patients who evaluated the trial to be effective. All patients completed the 10 therapy sessions without any side effects. Intermittent PTNS may be an alternative therapy for patients with IC symptoms.
17	Baykal 2005 (66)	A significant improvement was observed in the maximum bladder capacity and pain symptoms. The intravesical heparin and peripheral neuromodulation combination seems to be an alternative for patients with refractory IC.
18	Govier 2001 (53)	The mean daily urine voiding and urge incontinence were reduced by 25% and 35%, respectively (p<0.05). Statically significant improvements were observed in the pain and QOL indices. No significant side effects were observed in patients. Percutaneous peripheral afferent nerve stimulation is a safe, minimally invasive and effective therapy for treating refractory OAB and/or pelvic floor dysfunction.
19	van Balken 2006 (61)	Subjective success was seen in 51.5% of patients. The SF-36 total score was low. The patients also scored worse on the disease-specific QOL questionnaire, though the disease severity was not different. PTNS may be used as a tool for neuromodulation therapy in patients.
20	Capitanucci 2009 (49)	Twelve and all 14 patients with dysfunctional voiding were improved (p not significant). During 1 year of follow-up, the dysfunctional voiding was improved greater in OAB patients (71% vs 41%) and the improvement remained the same at the 2-year evaluation. The voided volume and post-void residual urine became normal in most of the patients with dysfunctional voiding. PTNS is reliable and effective for nonneurogenic refractory lower urinary tract dysfunction in children. The PTNS efficacy seems to be better in dysfunctional voiding cases than in the OAB ones.
21	Vandoninck 2003 (64)	The objective and subjective success rate was 56% and 64% in 24-hour leakages, respectively. Urine voiding frequency in terms of volume chart data and QOL scores improved significantly ($P < 0.01$). Cystometric bladder capacity ($p=0.043$) and bladder volume ($p=0.012$) increased significantly. PTNS cannot abolish Detrusor instability but it increases cystometric capacity and delays the onset of Detrusor instability. PTNS can be useful in the cystometry of patients without Detrusor instability or with late Detrusor instability onset.
22	Fischer-Sgrott 2009 (52)	The scores of the health-related questionnaire and ICIQ-SF were improved significantly. PTNS can be considered as a good alternative to OAB therapy because it is safe and inexpensive as compared to other therapeutic methods and improves the QOL in women with refractory OAB.
23	Marchal 2011 (71)	At 6, 12, and 24 months of follow-up, 92.4%, 91.69%, and 62.5% of patients improved, respectively. Night-time urination frequency ($P \le .05$) and QOL ($P \le .01$) were significantly worsened. By the end of therapy, the first sensation of bladder filling increased. The mean post-therapy bladder capacity increased by 72.7 mL ($P \le .001$). PTNS is a good option for OAB therapy.
24	Pytel 2018(60)	According to the urinary dairy, incontinence frequency, frequent urination, and tendency to urinate improved. Urodynamic examination showed no significant change in the target parameters. No side effects were observed. PTNS is an effective, minimally invasive, tolerable and safe therapy for OAB syndrome.
25	Kabay 2021 (67)	Daily urine voiding and daily emergency frequency decreased by 3.8 and 4.7 times, respectively, and pain intensity, symptoms, and problem index showed a statistically significant improvement. The changes in the mean volume of urine voided were not statistically significant. The voiding volume improved by 8.4 mL on average. In patients with painful bladder syndrome, the urine voiding diary, and scores of the ICSI, ICPI, and VAS improved after 12 weeks of PTNS treatment. The PTNS treatment is a useful therapeutic option in the first line of the treatment to improve the symptoms of the painful bladder syndrome.
26	Kizilyel 2015 (24)	All parameters of the urinary bladder improved significantly in all groups ($p<0.05$). The use of PTNS compared to the drug group had a statistically significant improvement in symptoms. PTNS is a safe, simple and minimally invasive treatment method in patients with OAB and may be suggested alone or in combination with ACD if conventional treatments fail.
27	Preyer 2015 (30)	There was no significant difference between the two treatment groups in quality of life ($p = 0.07$) and frequency of incontinence ($p = 0.89$). Side effects of PTNS were less than tolterodine ($p=0.04$). Both PTNS and tolterodine were effective in reducing the frequency of incontinence and improving the quality of life in patients with OAB, but not in the frequency of urination. PTNS had fewer side effects.
28	Ayala-Quispe 2020 (39)	Average voiding volume, daily and nightly voiding frequency decreased, urgency and urgency incontinence frequency decreased, there was no significant difference between the two treatments. The quality of life and recovery due to treatment with both techniques increased positively ($p=0.05$). There were no complications. This was the first randomized clinical trial in Mexico that evaluated the efficacy of both posterior tibial stimulation techniques.
29	Sherif 2017 (34)	Botulinum toxin group had significant improvement in all parameters. Intrathecal injection of botulinum toxin and PTNS are both effective in the treatment of refractory idiopathic OAB. Botulinum toxin A is more effective than PTNS and is durable, less invasive, reversible and safe, but has more side effects.
30	Mallmann 2020 (25)	The overactive bladder questionnaire showed a significant improvement in the PTNS group compared to the parasacral stimulation group ($p=0.019$). After the intervention, there was no difference between the groups in terms of the KHQ domain, the average symptom scale of this questionnaire, and the proportion of the incontinence severity index. Both parasacral cutaneous electrical stimulation and PTNS appear to be effective and safe for home treatment of women with OAB.
31	Elshora 2020 (18)	Urodynamic parameters and OAB symptoms had a statistically significant improvement, there was no significant difference between the two groups. Side effects were mainly observed in the trospium chloride group, which were not observed in the PTNS group. Trospium chloride and PTNS stimulation have the same effect in treating OAB symptoms and these two lines of treatment are effective. PTNS is safe and associated with significant improvement in OAB symptoms.

symptoms.

~~	Lashin 2021	Bladder symptoms, frequency and frequency of emergency urinary incontinence had statistically significant
32	(40)	improvement. No serious device-related adverse events or malfunctions were reported. PTNS is safe and effective in
	T 7 1 • • •	treating OAB symptoms after 6 weeks. This is more acceptable and affordable for patients.
22	Vecchioli-	PTNS showed more effectiveness than solifenacin succinate, but together with PTNS, it was more effective than its
33	Scaldazza	individual application and showed more effectiveness in the long term.
	2018(37)	
	Sonmez 2022 (42)	The severity of incontinence, voiding frequency, frequency of incontinence, number of pads used, severity of symptoms and quality of life of the groups receiving posterior tibial nerve stimulation were significantly improved compared to the
	(42)	group receiving bladder retraining (P<0.0167). Treatment success and treatment satisfaction were higher in both
34		group receiving bladder retraining ($P < 0.0107$). Treatment success and treatment satisfaction were higher in both electrical stimulation groups than in the bladder retraining group ($P < 0.001$ and $P < 0.0167$, respectively).
54		Posterior tibial nerve stimulation with bladder training was more effective than bladder training alone in women with
		idiopathic OAB .These two tibial nerve stimulation methods had similar clinical efficacy, but with minor differences,
		TTNS had shorter preparation time, lower discomfort level, and higher patient satisfaction than PTNS.
	Svihra 2002	In the electrical stimulation group, the average of the incontinence questionnaire increased. There was a significant
35	(36)	difference in the drug group. The untreated group saw no change in complaints. Noninvasive stimulation improved
00	(50)	subjective symptoms related to overactive bladder, had no side effects, and was well tolerated.
	Karademir	In both groups, the average voiding frequency, urgency and urgency incontinence improved. There was no significant
36	2005	difference between the two groups. SANS is an easy treatment method with few complications in OAB. The combination
	(23)	with a low dose of anticholinergic, without causing side effects, significantly increases the success rate.
	Zonić-	TTNS and PTNS led to reduction of all clinical symptoms of OAB and significant improvement of quality of life
37	Imamović	(P<0.05), without side effects, which was statistically more significant with PTNS (P<0.001). Better effects were
	2021(44)	obtained with weekly PTNS.
T	Geirsson1993	Urinary frequency, average and maximum voided volume, and visual analog scale scores of both groups had no
38	(45)	difference compared to before treatment. Despite the small sample size, it seems that TTNS and acupuncture have a very
		limited effect in patients with interstitial cystitis.
	Boudaoud	Objectively, the results support the effectiveness of TTNS. Evacuation volume (184 ml to 265 ml), maximum
39	2015(15)	cystomanometric volume (215 ml to 274 ml) increased significantly. Clinical results remained the same between TTNS
		and placebo groups. Despite the small sample size, this pediatric population emphasizes the placebo effect with any
	Macías-Vera	Patients treated with darifenacin had a decrease in voiding frequency and incontinence, and compared to patients treated
40	2016	with stimulation, they had a lower score in the self-assessment questionnaire of quality of life. In the pad test, urine
40	(57)	leakage in grams decreased in both groups and there was no statistically significant difference between the two groups $(n=0.752)$ At weak 6 deriference between the two groups and there was no statistically significant difference between the two groups
		(p=0.753). At week 6, darifenasin was superior to transcutaneus stimulation in reducing symptoms, urinary leakage, and questionnaire scores.
	Souto 2014	In the 24th week, in the multimodal treatment group, the score of the OAB Incontinence Questionnaire (ICIQ-OAB), p
41	(35)	= 0.0001, and the score of the Short Form Incontinence Questionnaire (ICIQ-OAD), $p = 0.0006$, increased. Multimodal
	(55)	treatment was more effective and TENS treatment (alone or combined) has more lasting results than oxybutynin alone.
	Manriquez	A significant decrease was observed in the voiding frequency, urgency and frequency of emergency incontinence. There
42	2016	was no significant difference between the intervention groups. OAB-q scores improved similarly in both groups. TTNS
	(26)	and oxybutynin showed similar improvements in subjects with OAB in a 12-week study.
	Ramirez-	Statistically significant improvements were observed in OAB-q-SF and incontinence questionnaire, as well as in the
43	Garcia 2021	quality of life of both TTNS and PTNS groups ($p < 0.001$). There was no difference between the two groups. Therefore,
43	(32)	these findings, along with the minimal invasiveness and ease of use of TTNS, may lead to an increase in the use of this
		technique in OAB.
	Abulseoud	The average score of the OAB symptom questionnaire, the average voiding frequency, and the IIQ-7 score in both TTNS
44	2018(10)	and TTNS plus drug groups had a significant decrease. Cystometric capacity increased in both groups. TTNS combined
		with low-dose trospium chloride was more effective than TTNS alone in treating OAB in women.
45	Hegazy 2014	The mental success rate was 67% in the PTNS group and 40% in the propriorin group. PTNS is more effective than
	(54)	proprin in the treatment of OAB.
46	Bacchi 2021	Significant reduction of 1.5 times urination in group 2, which was not clinically relevant. Adding vaginal stimulation to
	(14)	TTNS for treating OAB was not more effective than TTNS alone.
	Ebid 2009	In both groups, the parameters of daily urination, severity of urgency and VAS had statistically significant improvements.
47	(17)	In the PTNS group along with pelvic floor exercise, the volume of the initial tendency to void was a continuous recovery. No difference was observed in the long-term electrical stimulation of the posterior tibial nerve with vetrospium
7/		hydrochloride in the treatment of patients with OAB. Discontinuation of both treatments resulted in further worsening
		of symptoms of OAB.
	Finazzi-Agro	The improvement of incontinence frequency, number of voids, volume of voids, and incontinence quality of life score
48	2010(19)	was significant in PTNS, but not in the placebo group. PTNS can be considered an effective treatment for detrusor
		overactivity incontinence, none of the placebo-treated patients responded to the treatment.
	Barroso 2013	The visual analog scale was completely resolved in 70% of the parasacral stimulation group and in 9% of the PTNS
	(48)	group ($p=0.02$). There was no significant difference between the groups ($p=0.55$). Parasacral electrical stimulation is
49	× /	more effective in relieving symptoms of OAB, which is consistent with parents' opinion. However, there was no
		statistically significant difference in the assessment of symptoms of inefficient urination, or in the complete resolution
		of daily urinary urgency or incontinence.
	Sancaktar	Side effects were similar between the two groups. The combination of SANS and antimuscarinic therapy compared to
50	2010 (33)	antimuscarinic therapy alone in patients with overactive bladder led to better clinical results and Incontinence Impact
50	()	
50		Questionnaire (IIQ-7) scores.
50	Ramirez- Garcia2019	Questionnaire (IIQ-7) scores. The number of daily urination and symptom improvement of the 3-day diary variables of urination in both stimulation methods did not decrease statistically significantly. In each method, more than 50% of the frequency of emergency

	(31)	incontinence was reduced and the quality of life improved to a great extent. TTNS complications are not more. According
		to the results, the use of neuromodulation in a superficial way may lead to more prescribing of this technique.
52	Martin-Gracia 2018 (27)	In both stimulation methods, the results of voiding frequency, frequency of urgency and urinary incontinence, severity of symptoms and quality of life did not change significantly. There was no statistically significant difference in outcomes between groups. TTNS is effective in maintaining symptom improvement in women with OAB who responded positively to a course of 12 weekly sessions of PTNS.
53	Pierre 2021 (41)	TTNS in one leg, once a week, reduced urgency frequency $(1.0\pm1.6 \text{ vs. } 1.4\pm1.9; \text{ p} = 0.046)$ and incontinence frequency compared to placebo $(1.4\pm0.7 \text{ vs. } 1.4\pm2.2 \text{ ,p}<0.001)$. The protocol of one leg, twice a week, increased the frequency of urination compared to two legs, once a week $(8.2\pm3.5 \text{ vs. } 9.0\pm5.1; \text{ p}=0.026)$ and placebo $(3.5\pm8.2 \text{ versus } 2.7\pm9; \text{ p} = 0.02)$. Stimulation of one leg improved daily urination frequency, urgency and urinary incontinence.
54	Bykoviene 2018(16)	Urinary frequency of women improved in both groups, urinary incontinence decreased significantly in the second group. There were no between-group differences. All three treatments (TTNS plus pelvic floor muscle retraining and retraining alone and lifestyle advice) lead to effective short-term reduction of urgency in women with OAB, but evaluation of long- term efficacy is needed.
55	Alve 2020 (13)	No difference in the analyzed outcomes was observed between the TTNS groups with sensory and motor thresholds. TTNS is more effective in treating OAB in older women. And there is no difference between sensory and motor thresholds.
56	Jacomo 2020 (22)	By measuring OAB_ICIQ and SF_ICIQ, the symptoms of both groups improved. In the 3-day evaluations of the bladder diary in the TTNS group, the frequency of urgency and urinary incontinence decreased, no difference was observed between the groups. Both proposed treatments were effective in improving OAB symptoms, but TTNS showed a greater reduction in symptoms than the 3-day bladder diary.
57	Ahmed 2020 (11)	In TTNS and PTNS groups, maximum bladder capacity and health-related quality of life increased significantly (P=0.0001). There was a significant decrease in the severity of bladder symptoms in both groups. There was no significant difference between the two groups in all variables (P>0.05). TTNS is as effective as PTNS in reducing bladder severity symptoms and improving health-related quality of life in postmenopausal women with OAB.
58	Girtner 2021 (20)	With bilateral TTNS, maximum bladder capacity increased by 41 ml in subjects without anatomic pathology symptoms ($p = 0.02$). The average voiding volume of patients with residual pathological values after voiding increased by 76 ml compared to patients without urinary retention ($p = 0.03$). TTNS appears to be beneficial in these patients.
59	Welk 2020 (43)	There were no significant differences in secondary outcomes (24-hour pad weight and urine output diary parameters). The results were similar in OAB and neurogenic bladder subtypes. TTNS does not appear to be effective for treating urinary symptoms in people with OAB or neurogenic bladder dysfunction.
60	Okan 2021 (12)	A significant decrease in voiding frequency, OAB-V8, ICIQ-SF was observed in both groups (p<0.001). After 12 weeks of TTNS, no significant difference was observed between the groups in terms of treatment response. Three times weekly TTNS appears to be more effective than once weekly and can be safely used before aggressive treatments in refractory OAB.
61	Zhang 2021 (38)	OAB symptoms with OAB-q questionnaire and urine diary and maximum bladder volume in both groups significantly improved after treatment, which was better in the combination group, drug and TTNS. Some mild side effects were observed. The combination of TTNS and solifenacin was more effective in improving OAB symptoms than solifenacin alone.
62	Ugurlucan 2013 (21)	PTNS and electrical stimulation are both significantly effective in the treatment of OAB in improving objective and subjective parameters. The objective results between the two groups are not significantly different. However, the number of patients describing themselves as cured was significantly higher in the ES group.
63	Peters 2009 (29)	No serious device-related adverse events or malfunctions were reported. This randomized, double-blind, multicenter, randomized controlled trial with level I evidence found that PTNS therapy is safe and effective in the treatment of OAB. The convincing effect of PTNS in this trial is consistent with other recently published reports and supports the use of peripheral neuromodulation for the treatment of OAB.

Appendix 2b: Summary of studies

Conclusions	Intervention group:				C S	Yea
	tage atmo ation ation ation atmod	Current intensity (milliampere) Threshold of stimulation (D. soin M. Pulse width (milliseconds)	Samples size Number of treatment sessions Current frequency	Stimulatio	tudy type and disease 'ontrol group	ar

analog scale (VAS) score OAB	2017 (58)	
(VAS) score		
above 50%		
showed no		
significant		
difference		
between the		
diabetic group		
(70% vs. 44.1%), $r = 0.17$) and the		
p=0.17) and the		
two groups (4.10		
vs. 4.10, p=0.98).		
After two months		
of treatment, the		
score on the		
urinary		
symptoms profile		
(USP)		
questionnaire		
reduced reduced		
significantly in		
both groups (-3		
scores in the		
diabetic group, -		
1.9 scores in the		
non-diabetic		
group, p=0.030		
and p<0.001,		
respectively).		
Except for the		
patients whose		
treatment was		
stopped after 6		
months, there		
was no		
significant		
difference		
between groups.		
This difference		
was greater		
among diabetic		
patients (100%		
vs. 63.5%,		
p=0.04). The		
functional results		
of the TTNS in		
the OAB		
treatment seem		
to be similar		
between the		
diabetic and non-		
diabetic		
patients.		

											1			
At the end of the	1	1	30	NM	NM	Р	NM	NM	1*12=12	20	PTNS	NRCT	Ragab	2
treatment, the												PB	2015	
VAS score and daily voiding													(68)	
frequency rate														
reduced and the														
mean urine														
volume														
increased. There														
was no														
statistically														
significant														
difference in the														
ICPI scores														
(p=0.927) between weeks 0,														
6, and 12														
(p=0.937). As														
regards the GRA														
score, 85% of														
patients reported														
having no effect,														
5% reported														
having worse														
symptoms, and														
10% reported having a mild														
good response.														
Intermittent														
PTNS is not a														
satisfactory														
treatment for														
refractory														
IC/BPS.						_								
A subjective	1	4	30	9	0.2	Р	0-10	20	1*12=12	33	PTNS	NRCT	Van balken	3
response was observed in 42%												PB	2003 (46)	
of patients. The													(40)	
mean VAS score														
was less than 3 in														
21% of patients.														
The 36-item														
Short Form														
Health Survey														
questionnaire														
(SF-36) showed														
the overall pain intensity to have														
a significant														
improvement.														
Despite the very														
low overall														
success rate and														
the need for														
controlled studies														
with placebo,														
PTNS may have a place in the														
treatment of														
patients with														
patients with chronic														
chronic refractory pelvic pain.														
chronic refractory pelvic pain. The data	1	6	30	9	0.2	NM	NM	20	14	200	PTNS	NRCT	Rio-Gonzalez	4
chronic refractory pelvic pain. The data confirmed the	1	6	30	9	0.2	NM	NM	20	14	200	PTNS	NRCT OAB	2017	4
chronic refractory pelvic pain. The data confirmed the high	1	6	30	9	0.2	NM	NM	20	14	200	PTNS			4
chronic refractory pelvic pain. The data confirmed the high effectiveness of	1	6	30	9	0.2	NM	NM	20	14	200	PTNS		2017	4
chronic refractory pelvic pain. The data confirmed the high effectiveness of PTNS in	1	6	30	9	0.2	NM	NM	20	14	200	PTNS		2017	4
chronic refractory pelvic pain. The data confirmed the high effectiveness of	1	6	30	9	0.2	NM	NM	20	14	200	PTNS		2017	4

by 24 months.														
Moreover,														
frequent														
urination during														
the day and the														
first sensation of														
bladder filling														
are considered														
important factors														
in the PTNS														
success.														
The PTNS has an	1	5	NM	NM	200	Μ	NM	NM	NM	44	TTNS	NRCT	AMARENCO	5
objective effect												OAB	2003	
on urodynamic													(47)	
parameters.													()	
Improvement of														
OAB caused the														
PTNS to be														
suggested as a														
non-invasive														
therapeutic														
method at the														
bedside.														
Pain (VAS) is	1	2	30	9	0.2	М	0.5-	20	4*12=48	15	PTNS	NRCT	Klingler	6
reduced in							10					OAB	2000	
patients. The													(55)	
urodynamic														
evidence of														
bladder														
instability faded														
in 76.9% of														
patients. The														
average total														
bladder capacity														
(TBC) and														
bladder volume														
during voiding														
increased in all														
patients. No side														
effects were														
observed in														
treatment.														
Peripheral														
neuromodulation														
of the S3 region														
can treat patients														
with urgency-														
frequency in														
OAB syndrome.							0.42	• •	4 4 14	4.0		NIP (D ~	
The pain VAS	1	6	30	NM	0.2	Μ	0-10	20	1, 6, 12	10	PTNS	NRCT	De Gennaro	7
score decreased.												OAB	2004	
Most cases of													(50)	
urinary														
incontinence														
were cured. The														
symptoms														
improved in 71%														
of the children														
with urinary														
retention. In 65%														
of patients who														
regained bladder														
control, the														
cystometric														
capacity of the														
bladder was														
normal and there														
were no more														
	1													1
unstable														
unstable contractions. No														

significant basky took subserved in the subserved in the subse													 		
observation uncompanies in merophilic hilds proposed in the merophilic hildsis<	significant														
observation uncompanies in merophilic hilds proposed in the merophilic hildsis<	change was														
ymptoms in he neuropatities websites in the series of the	observed in the														
ymptoms in he neuropatities websites in the series of the	urodynamic and														
In concepting in the series of															
bidder group. Une PINS is suite infimitive series that is and instruction in transmitive periodia due is suite infimitive series that is is an experiment in transmitive instruction is in the problem is indicated by the periodic of															
The FTNS is self. unitability mainful and facible in the PTNS is send to be the active in of the active in of <br< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></br<>															
safe, minimally pairdial of the backbar to facebbar seens to ba beloful in backbar (chidben, TNS)II <thi< td="" th<=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></thi<>															
painful and leadbin seens to be helpful in the treatment of refractoryII															
element of terms besome intermet of terms of terms of the point intermet intermet of terms of terms of terms 1 3 30 NM NM 0.5-9 20 1*12-12 33 PTNS NRCT MacDiarmit 0.0AB MacDiarmit 2000 65 Primits Above improvement in overall subjection segences, requency of taily volting and urgo one section is significant side offict van observed. The OAB symptom supprovement interment is significant side offict van observed. The OAB symptom improvement is significant side offict van observed. The OAB 1 6 30 NM 0.2 M 0.5 10 12 12 18 PTNS NRCT MacDiarmit 0.00 8 1 6 30 NM NM NM 0.5 20 1*12-12 33 PTNS NRCT 0.0AB MacDiarmit 0.00 8 1 6 10 <td></td>															
childra, PTNS servet to helpful in the treatment of automotion effectoryImplement improvement in outomotion urget treatment of treatment of urgetImplement improvement improvement improvement improvement improvementImplement improvement improvement improvement improvement improvement improvement improvement improvementImplement improvement improvement improvement improvement improvementImplement improvement improvement improvement improvementImplement improvement 															
Security roleIII <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>															
helpful in the treatment effractory anoneurogenic terms volume improvement in vocall subjection effractory of reguency of 															
Interfactory reficiency noneurogenicII<															
noneurogeneration LUTS.II <td></td>															
nonmediageneric i <td></td>															
LUTS.Image: series of the series															
Patients showed problems of the problem of the prob															
improvement in overall subjects in the second secon		1	2	20	NIM	NINA	NIM	050	20	1*10_10	22	DTNC	NDCT	MaaDiarmid	0
overall subjective response, frequency of dialy voiding and a subjective response of the subjective of dialy voiding and a subjective of dialy of the subjective of the subjective of dialy of the subjective of		1	3	- 50	INIVI	INIVI	INIVI	0.5-9	20	1*12=12	33	PINS			ð
response, frequency of daily voiding and use goes montimente. A significant via symptoms symptoms 12 months 10 2 months 10 2 m													UAB		
frequency of daily voiding and urge incontinence. A significant improvement was observed in the OAB questionants (p source) for the oas source) for the oas source in the OAB questionants (p source) for the oas source) for the oas the														(50)	
dulty volting and urge incontinence. A significant voltage questionnative subsortion 12 months 10 questionnative subsortion 13 months 10 questionnative questionnat															
incontineers. A significant improvement was observed in the ob															
incontinence. A significant improvement was observed in the OAB questionaire symptoms is evenly from 3 months to 12 months (p <0.01), as well as four fourth of the output															
significant improvement in the order of the															
improvement was observed in symptoms severity from 3 months to 12 months (0 <0.01), as well as from 6 months to 12 months (0-0.01). The mean voltage was 39 cc (p<0.01). The mean voltage mean voltage improvement improvement was 39 cc (p<0.05). NO Significant side effect was observed. The OAB voltage observed. The observed. The OAB voltage observed. The OAB voltage															
was observed in the OAB questionnaire swerity from 3 swerity from 3 roomths to 12 months to 13 months to 14 months to 14 months to 14 months to 15 months to 15 months to 14 months to 14 months to 15 months to 14 months to 14 mo															
the OAB we way the second of t															
questionnaire symptoms severity from 3 months to 12 months to 12 months to 12Image: severity from 3 months to 12 months to 12Image: severity from 3 months to 12 months to 12Image: severity from 3 months to 12Image: severity fr															
symptoms severity from 3 months to 12 months (p <0.01), as well as from 6 months to 12 months (p <0.01). The mean voiding volume improvement mean voiding volume improvement improvement jergificant side observed. The OAB symptoms improvement lasted for up to 12 weeks of PTNS tratement sessions and this improvement lasted for up to 12 weeks of PTNS rement sessions and this improvement lasted for up to 12 months. The results of this study indicate the effectiveness of PTNS rement sessions and this improvement lasted for up to 12 months. The results of this study indicate the effectiveness of PTNS rement sessions and this improvement lasted for up to 12 months. The results of this study indicate the effectiveness of PTNS rement sessions and this improvement lasted for up to 12 months. The results of this study indicate the effectiveness of PTNS rement reduction in minimity frequency, urgency, urge i															
severity from 3 months to 12 months to 12 mo															
months to 12 months (p<-0.01), as well as from 6 months to 12 months (p<0.01). The mean voiding volume improvement J2 weeks of PPTNS treatment sessions and this target of the point significantly with J2 weeks of PTNS treatment improvement lated for up to 12 months. The results of this sudy indicate the effectiveness of FTNS as a stable and long-term treatment in the point of the point oAB1630NM0.2M0.5201*12=1218PTNSNRCT OABOnal 2012 (59)9There was a significant urinary frequency, urge1630NM0.2M0.5201*12=1218PTNSNRCT OABOnal 2012 (59)9															
months (p -0.01), as well as from 6 months to 12 months (p -0.01). The mean volume (p -0.01). The mean volume improvement was 39 cc (p -0.05). No significant side offect was observed. The OAB symptoms improved significant with 12 weeks of PTNS treatment sessions and this study indicate the effectiveness of returns the results of this study indicate the adding-term treatment in treatment in treatment in the mean volume improvement laws as table and long-term treatment in the mean volume improvement laws as table and long-term treatment in the mean volume improvement laws at the law of the mean volume improvement laws of this study indicate the effectiveness of PTNS treatment is setting the mean volume improvement laws of this study indicate the effectiveness of PTNS as a stable and long-term mean volume improvement laws at the law of the mean volume improvement laws at the law of the mean volume improvement laws at the law of the mean volume improvement laws at the laws of the mean volume improvement laws of the mean vol															
ston 6 months to 12 months (p<0.01). The mean volume improvement was 39 cc (p<-0.05). No significanti side effect was observed. The OAB symptoms improvement lasted for up to 12 months. The results of this study indicate the effectiveness of PTNS treatment issenticate the effectiveness of PTNS as a stable and long-term treatment in treatment															
as from 6 months to 12 months (p<0.01). The mean voiding volume improvement was 39 cc (p<0.05). No significant side effect was observed. The OAB symptoms improved. significantly with 12 weeks of PTNS treatment sessions and this improvement hated for up to 12 months. The results of this study indicate the effectiveness of PTNS as a stable and long-term treatment in OAB. There wasa 1 6 30 NM 0.2 M 0.5- There wasa 1 6 30 NM 0.2 M 0.5- There wasa 1 6 30 NM 0.2 M 0.5- There wasa significant improve, urge															
to 12 months (p<0.01). The mean voiding volume improvement improvement isignificant side effect was observed. The OAB symptoms improvement isignificant with effect was a table and long-term treatment in There was a I 1 6 30 NM 0.2 M 0.5. The was a table improvement isignificant with effect was a stable and long-term treatment in treatment															
(p<-0.01). The mean voiding volume improvement lefet vas observed. The OAB symptoms improved significant side effect vas observed. The OAB symptoms improved significantly with 12 weeks of PTNS tratament lasted for up to 12 months. The results of this study indicate the effectiveness of PTNS as a stable and long-term treatment in OAB.Image: Comparison of the significant side improved improv															
mean voiding volume improvement was 39 cc (p<0.05). No significant side effect was observed. The OAB symptoms improved significantly with 12 weeks of PTNS treatment sessions and this improvement lasted for up to 12 months. The results of this study indicate the effectiveness of PTNS as a stable and long-term treatment in OAB. There was a There was a The was a the there was a There was a															
volume improvement wa 39 cc (p<0.05). No significant side effect was observed. The OAB symptoms improved significantly with 12 weeks of PTNS treatment lasted for up to 12 months. The results of this study indicate the effectiveness of the results of this study indicate the effectiveness of Three was a the dots1630NM0.2M0.5- 10201*12=1218PTNSNRCT OAB OAB (DAB (DAB (DAB)Onal 20129There was a significant urinary urina															
improvement was 39 c (p<0.05). No significant side effect was observed. The OAB symptoms improved. Significantly with 12 weeks of PTNS treatment sessions and this improvement lasted for up to 12 months. The results of this study indicate the effect iveness of PTNS as a stable and long-term treatment in OAB There was a 1 6 30 NM 0.2 M 0.5- 20 1*12=12 18 PTNS NRCT Onal Significant of 10 NRCT Onal 10 0.5- 10 0 NRCT Onal (59)															
was 39 cc (p<0.05). No significant side effect was observed. The OAB symptoms improved significantly with 12 weeks of PTNS treatment lasted for up to 12 months. The results of this study indicate the effectiveness of PTNS as a stable and long-term treatment in OAB. There was a 1 6 30 NM 0.2 M 0.5- There was a significant reduction in urinary frequency, urgency. urge															
(p<0.05). No significant side effectives observed. The OAB symptoms improved significantly with 12 weeks of PTNS treatment sessions and this improvement lasted for up to 12 months. The results of this study indicate the effectiveness of PTNS as a stable and long-term treatment in OAB.I630NM0.2M0.5- 10201*12=1218PTNSNRCT OABOnal 2012 (59)9There was a significant reduction in urinary frequency, urgency, urge1630NM0.2M0.5- 10201*12=1218PTNSNRCT OABOnal 2012 (59)9															
significant side effect was observed. The OAB symptoms improved significantly with 12 weeks of PTNS treatment sessions and this improvement lasted for up to 12 months. The results of this study indicate the effectiveness of PTNS as a stable and long-term treatment in OAB 1 6 30 NM 0.2 M 0.5- There was a significant reduction in urinary frequency, urgency, urge															
effect was observed. The OAB symptoms improved significantly with 12 weeks of PTNS treatment sessions and this improvement lasted for up to 12 months. The results of this study indicate the effectiveness of PTNS as a stable and long-term treatment in OABImage: Comparison of the operation of the operation of the the stable of the 															
observed. The OAB symptoms improved significanty with 12 weeks of PTNS treatment sessions and this improvement lasted for up to 12 months. The results of this study indicate the effectiveness of PTNS as a stable and long-term treatment in OABii <td></td>															
OAB symptoms improved significantly with 12 weeks of PTNS treatment sessions and this improvement lasted for up to 12 months. The results of this study indicate the effectiveness of PTNS as a stable and long-term treatment in OAB.I630NM0.2M0.5-201*12=1218PTNSNRCT OABOnal 2012 (59)9There was a significant reduction in urinary frequency, urgeI630NM0.2M0.5-201*12=1218PTNSNRCT OABOnal 2012 (59)9															
improved significantly with 12 weeks of PTNS treatment sessions and this sessions and this improvement lasted for up to 12 months. The results of this study indicate the effectiveness of PTNS as a stable and long-term treatment inimplement o oimplement o oimplement o o <td></td> <td></td>															
significantly with 12 weeks of PTNS treatment sessions and this improvement lasted for up to 12 months. The results of this study indicate the effectiveness of PTNS as a stable and long-term treatment in OAB. There was a 1 6 30 NM 0.2 M 0.5 There was a 1 6 30 NM 0.2 M 0.5 There was a 1 6 30 NM 0.2 M 0.5 There was a 1 6 30 NM 0.2 M 0.5 There was a 1 6 30 NM 0.2 M 0.5 10 1 1 1 1 1 1 1 1 1 1															
12 weeks of PTNS treatment sessions and this improvement lasted for up to 12 months. The results of this study indicate the effectiveness of PTNS as a stable and long-term treatment in OAB. There was a There was a significant reduction in urinary frequency, urge (59)															
PTNS treatment sessions and this improvement lasted for up to 12 months. The results of this study indicate the effectiveness of PTNS as a stable and long-term treatment inIsote is a stable is in the stable is in the stableIsote is a stable is is it is in the stable is is it															
sessions and this improvement lasted for up to 12 months. The results of this study indicate the effectiveness of PTNS as a stable and long-term treatment in OAB. improvement improvement improvement improvement of this study indicate the effectiveness of PTNS as a stable and long-term treatment in OAB. improvement improvement improvement improvement improvement improvement															
improvement lasted for up to 12 months. The results of this study indicate the effectiveness of PTNS as a stable and long-term treatment in OAB. There was a significant reduction in urinary frequency, urgency, urge															
lasted for up to 12 months. The results of this study indicate the effectiveness of PTNS as a stable and long-term treatment in OAB.Image: stable of the st															
12 months. The results of this study indicate the effectiveness of PTNS as a stable and long-term treatment in OAB.Image: stable of the stable of															
12 months. The results of this study indicate the effectiveness of PTNS as a stable and long-term treatment in OAB.Image: stable of the stable of															
study indicate the effectiveness of PTNS as a stable and long-term treatment in OAB.Image: study indicate the effectiveness of PTNS as a stable and long-term treatment in OAB.Image: study indicate the study indicate the<	12 months. The														
effectiveness of PTNS as a stable and long-term treatment in OAB.Image: stable of the s															
PTNS as a stable and long-term treatment in OAB.Image: stable of the stable o															
and long-term treatment in OAB.outputou															
treatment in OAB.OABImage: Constraint of the systemImage: Constraint of the sys															
treatment in OAB.OABImage: Constraint of the systemImage: Constraint of the sys	and long-term														
There was a significant reduction in urinary frequency, urgency, urge1630NM0.2M0.5- 10201*12=1218PTNSNRCT OABOnal 2012 (59)9	treatment in														
significant reduction in urinary frequency, urgency, urge															
significant reduction in urinary frequency, urgency, urge		1	6	30	NM	0.2	Μ	0.5-	20	1*12=12	18	PTNS	NRCT		9
reduction in urinary frequency, urgency, urge (59)								10					OAB		
urinary Image: Constraint of the second se														(59)	
frequency, urge	urinary														
urgency, urge	frequency,														
	urgency, urge														
														<u> </u>	

													r	
the pad test														
score, and an														
increase in the														
patient's fluid														
intake. Despite														
its positive														
effects on														
bladder diary,														
pad test, and														
QOL in OAB														
syndrome, PTNS														
has no effects on														
bladder														
circulation.														
There was a	1	3	30	9	0.2	Μ	0_10	20	1*12=12	37	PTNS	NRCT	Vanbalken	10
statistically	-	5	50	,	0.2	171	0_10	20	1 12-12	57	1110	OAB	2001	10
												UAD		
significant													(46)	
reduction in the														
frequency of														
urine leakage,														
number of pads,														
and frequency of														
urine voiding.														
The QOL of														
patients,														
especially														
patients with														
OAB improved.														
The mean														
volume of urine														
voided showed a														
statistically														
significant														
increase. Only														
mid-side effects														
were observed.														
The PTNS is a														
successful														
therapeutic non-														
invasive method														
for patients with														
certain types of														
lower urinary														
tract dysfunction.														
There was a	1	6	30	NM	NM	NM	0.5-9	20	1*12=12	50	PTNS	NRCT	Peters	11
significant												OAB	2012	
improvement in													(28)	
urinary													(=0)	
frequency, urge														
incontinence														
frequency,														
urinary														
emergency, and														
in the scores of														
symptoms														
severity and														
QOL of OAB														
and health-														
related														
questionnaire.														
Some mild side														
effects of														
unknown														
relationship to														
treatment were														
reported. PTNS														
with 1.3														
treatments per														
month is a long-														
term safe,														
term sale.														

valuable herepoint significant child control133090.2P0.10201*12-1283PTNSNRCT NRTBalten.et al 200dydmation is observed in move urinay year with may urinay statistic13309NMP0.10201*12-1283PTNSNRCT NRTBalten.et al 200100Mosting to urinay statistic13309NMP0.10201*10-1014PTNSNRCT NRTP2.21*0Noting to urinay statistic13309NMP0.10201*10-1014PTNSNRCT NRTP1.2Noting to urinay statistic13309NMP0.10201*10-1014PTNSNRCT NRTP1.2Noting to urinay statistic1330NMP0.10201*10-1014PTNSNRCT NRTP1.2Noting to urinay statistic1330NMP0.10203*4-1214PTNSNRCT NRTNRTNRTNoting to urinay statistic1330NM12P1.0203*4-1214PTNSNRTNRTNRTNoting to urinay statistic1111111111Noting to urinay statistic11 <th></th> <th>-</th> <th></th>		-													
deterpoint metricul unaritation the constraint the constr	durable and														
method to significant) minim the chinad correct of the OAB143090.2P0.10201*12-1283PTNSNRCT OABDAR Balkenet al OAB21Observed in most observed in may vert with lower observed in may vert unary vert unary vert unary vert observed in may event were allowed observed in may near the patients13309NMP0.10201*10-1014PTNSNRCT NRCTZhao (62)15On significant contance were unary vert unary	valuable														
method to significant) minim the chinad correct of the OAB143090.2P0.10201*12-1283PTNSNRCT OABDAR Balkenet al OAB21Observed in most observed in may vert with lower observed in may vert unary vert unary vert unary vert observed in may event were allowed observed in may near the patients13309NMP0.10201*10-1014PTNSNRCT NRCTZhao (62)15On significant contance were unary vert unary	therapeutic														
displicantly minimum clinical control of the OAB143090.2P0.10201*12=1283PTNSNRCT NRCTNRCT Ralten van 2006 (62)12Oberwel in mot of de patient of de patient of de patient with lowe urantly tuck of de patient of the OAB143090.2P0.10201*12=1283PTNSNRCT NRCTNRCT Ralten van 2006 (62)13Neter of de patient of de patient with lowe with lowe of the patient of the OAB13309NMP0.10201*10=1014PTNSNRCT NRCT NRCTZhao NRCT13Name of de patient improved in he requerey. Umb voling requerey. Umb 															
Iminitiant the clinical control I															
clinical control of the OASIII															
of the OAB SymptomsvvvvvvvvvSexual dystanctin of the patient of the patient of the patient of the patient of the patient of the patient of the patient of the patient of the patient of the patient of the patient of the patient of the patient of the patient of the patient of the patien															
Symptoms I I I I Observed in model 1 4 30 9 0.2 P 0.10 20 1°12=12 83 PTNS NRCT Van 12 Observed in model important important <td></td>															
Sexual Usyliniction observed in most of the patient intermeted143096.2P0.10201*12=1283PTNSNRCT OABSublement al Balenent al 2006 (62)1With inver urinary mark urinary mark othic may be improved in the patients13309NMP0.10201*10=1014PTNSNRCT NRCTPulse13Notice to significant opin scores, uring requese, uring requese, uring to scores and cPL to scorescores and cPL <br< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></br<>															
dystruction is observed in maximum transition of the patients with lower the maximum transition of the patients with lower the maximum transition of the patients with lower the maximum transition of the maximum transitex of the maximum transition of the maximum transitic o				•	-			0.10	• •	1.1.1.0.1.0		DEDIG			1.
observal in most with lower uning yracs of the prime source successful improved in the recent successful imp		1	4	30	9	0.2	Р	0_10	20	1*12=12	83	PTNS			12
of the patients with lows dystanction, which may be improved in the recent successful13309NMP0.10201°10=1014PTNSNRCT PBZhao 200413No significant observed in the some patients. The treatment had no side effects improved in the some patients.13309NMP0.10201°10=1014PTNSNRCT PBZhao 200413No significant observed in the some patients. The treatment had no side effects. Internitient effecters of sprificant effecters effecters improvement in effecters effecters internitient effecters <td></td> <td></td> <td>OA</td> <td></td> <td></td>													OA		
with lower urinary trut dysfunction, which may be improved in the recent successfulI3309NMP0.10201*10=1014PTNSNRCT PBZhao ZO1413Oo significant observed in the volume, and the scores of tCP4. ICS1 and SP4 of thermetta13309NMP0.10201*10=1014PTNSNRCT PBZhao ZO1413(CS1 and SP4 of was observed in was observed in 															
unnay that dysfunction improved in the recent successfulI3309NMP0_10201*10=1014PTNSNRCTZhuo P13No significant observed in the voltage the work, the recent successful13309NMP0_10201*10=1014PTNSNRCTZhuo13No significant observed in the voltage the more and the voltage1330NMP0_10201*10=1014PTNSNRCTZhuo13ICSL and ST-56 the more and voltage1330NM0.2P0_10203*4=1211PTNSNRCTvan der PelICSL and ST-56 the more and voltageNM330NM0.2P0_10203*4=1211PTNSNRCTvan der Pel14After suppling recensent to different of incontinence erretement, the specification (p-0.05). After reterement, the manuber of incontinence erretement, the specification (p-0.05). After reterement, the specification (p-0.05). The more and the specification (p-0.05). The more and after (p-0.05). The more and after	of the patients													(62)	
dysfunction, which may be improved in the recent successful treatment.13309NMP0.10201*10=1014PTNSNRCT PBZhao Z00413Oo significant observed in the success, unte volume, and the success of CP4, ICS1, and SP56. the work and may constraint weak with effection of C100,3030NMP20.10201*10=1014PTNSNRCT PBZhao Z00413CS1, and SP56. to observed in the success of CP4, ICS1, and SP56. the work and may constraint weak work and may constraint tertactory IC3030NM0.2P0.10203*4=1211PTNSNRCT NRCTvan der Pal 0 diaAfter stopping in providently (p=0.05). The mean voide was weak work infiniting life to was weak was weak weak was weak weak was weak weak was weak weak weak was weak weak weak was weak weak weak was weak weak weak weak was weak weak weak weak weak weak was weak weak weak weak weak weak weak weak	with lower														
dysfunction, which may be improved in the recent successful treatment.13309NMP0.10201*10=1014PTNSNRCT PBZhao Z00413Oo significant observed in the success, unte volume, and the success of CP4, ICS1, and SP56. the work and may constraint weak with effection of C100,3030NMP20.10201*10=1014PTNSNRCT PBZhao Z00413CS1, and SP56. to observed in the success of CP4, ICS1, and SP56. the work and may constraint weak work and may constraint tertactory IC3030NM0.2P0.10203*4=1211PTNSNRCT NRCTvan der Pal 0 diaAfter stopping in providently (p=0.05). The mean voide was weak work infiniting life to was weak was weak weak was weak weak was weak weak was weak weak weak was weak weak weak was weak weak weak was weak weak weak weak was weak weak weak weak weak weak was weak weak weak weak weak weak weak weak	urinary tract														
which may be improved in the recent successfulIII<															
improved in the preent successful in the preent successful in the preent successful in the preent successful in the pain scores, urine volding in the sources, urine volding in the sources of ICPI, ICS1, and S7-56. However, an improvement was observed in some patients. The treatment had no side effects. Intermitted effect on patients with effect on severity, as well as in the QOI. The mean ordical with effect on the momber of incontinence effects, incontinence effects well as in the QOI. The patient with effect on th															
recent successful tratement I															
Ureatment.Image of the second sec															
No significant change van change van the part scores of the 															
change was observed in some patients. The treatment of Markov Construction of Markov Con		1	3	30	0	NM	D	0 10	20	1*10-10	14	DTNS	NPC	T Zhao	13
observed in the pain scores, unine voiding frequency, unine scores of ICPI, ISSI and SF-36. However, an improvement was observed in some patients. The treatment hadn oxide effects. a		1	5	50	,	TATAT	1	0_10	20	1,10-10	14	1 1145			15
pain soures, unine voluing, and the scores of ICPI, ICSI, and SF-36, However, an improvement was observed in some patients. The treatment for 6 effects. Intermittent PTNS has no significant chincal effect on patients with refractory IC during 10 weeks, the frequency and systematically (p=0.05). After retreatment, the mamber of incontinence episodes, intorotinence serverity, as well as the QOL improved during is the QOL improved during incontinence serverity. as well as the QOL improved during improved during incontinence													r		
requerey, urine volume, and the scores of LCPI, scores of LCPI, ICSI, and SF-36. However, an improvement vas observed in some patients. The treatment had no side effects. Intermittent PTNS has no significant chincal effect on patients with refractory IC during 10 weeks. After stopping treatment for 6 weeks, the frequency and severity of incontinence especify as well as well significantly (p=0.05). The mean voided worsened significantly (p=0.05). The mean voided worsened sig														(70)	
International diagram in the scores of ICPI, ICSI, and SF-36, However, an improvement was observed in some patients. The treatment had no side effects. Intermittent PTNS has no significant clinical effect on patients with refractory IC during 10 NM 3 30 NM 0.2 P 0_10 20 3*4=12 11 PTNS NRCT van der Pat 14 NRT STORE VALUE AND ADD ADD ADD ADD ADD ADD ADD ADD ADD															
volume, and the scores of ICPL ICSL and SF-36. However, an improvement was observed in some patients. The treatment had no side effects. Intermittent PTNS has no significant clinical effect on patients with refractory IC during 10 weeks. After stopping treatment for 6 weeks, the refractory and severity of incontinenee worsened significantly (p<0.05). After retreatment, the number of incontinenee severity, as well as well as a significantly (p<0.05). The mean voided improved dirig															
scores of ICPL, ICSL and SN-36 However, an improvement was observed in some patients. The treatment had no side effects. Intermittent PTNS has no significant clinical effect on patients with refractory IC during 10 weeks. After stopping NM 3 30 NM 0.2 P 0_10 20 3*4=12 11 PTNS NRCT Van der Pat After stopping reatment for 6 weeks, the frequency and severity of incontinence worsend significantly (p<0.05). After retrearment, the number of incontinence severity, as well as the Vorsened dit worsened															
ICSI, and SF-36. However, an improvement was observed in improvement vas observed in some patients. The treatment had no side effects. Intermittent PTNS has no significant clinical effect on patients with refuency IC during 10 weeks. NM 3 30 NM 0.2 P 0_10 20 3*4=12 11 PTNS NRCT van der Pal 14 vecks. NM 3 30 NM 0.2 P 0_10 20 3*4=12 11 PTNS NRCT van der Pal 16 weeks. NM 3 30 NM 0.2 P 0_10 20 3*4=12 11 PTNS NRCT van der Pal 16 weeks. Intermittent for 6 Mad A Intermittent															
However, an improvement was observed in some patients. The treatment had no side effects. Intermittent PTNS has no significant clinical effect on patients with refrequency and severity of incontinence worsened significantly (p-0.05). After retreatment, the number of incontinence episodes, incontinence severity, as well as the QQL improved with significantly (p-0.05). The mean voided volume was significantly (p-0.05). The mean voided volume vas significantly (p-0.05). The mean voided volume vas (p-0.05). The (p-0.05). The (p-0.05). The (p-0.05). The (p-0.05). The (p-0															
improvement was observed in some patients. The treatment had no side effects. Intermittent PTNS has no significant clinical effect on patients with refractory IC during 10 weeks. MM 3 30 NM 0.2 P 0_10 20 3*4=12 11 PTNS NRCT vecks, the frequency and severity of incontinence werks, the frequency and severity of incontinence episodes, incontinence severity, as well as the QL improved by significantly (p-0.05). The mean voided vorsened at significantly (p-0.05). The mean voided vorsened at (p-0.05). The mean voided vorsened at (p-0.05). The mean voided vorsened at (p-0.05). The (p-0.05). The (p	ICSI, and SF-36.														
improvement was observed in some patients. The treatment had no side effects. Intermittent PTNS has no significant clinical effect on patients with refractory IC during 10 weeks. MM 3 30 NM 0.2 P 0_10 20 3*4=12 11 PTNS NRCT vecks, the frequency and severity of incontinence werks, the frequency and severity of incontinence episodes, incontinence severity, as well as the QL improved by significantly (p-0.05). The mean voided vorsened at significantly (p-0.05). The mean voided vorsened at (p-0.05). The mean voided vorsened at (p-0.05). The mean voided vorsened at (p-0.05). The (p-0.05). The (p	However, an														
was observed in some patients. The treatment had no side effects. Intermittent PTNS has no significant clinical effect on patients with refractory IC during 10 weeks. After stopping treatment for 6 weeks, the frequency and severity of incontinence worsened significantly (p<0.05). After retreatment, the number of incontinence episodes, incontinence severity, as well as the QOL improved during worsened and it was significantly (p<0.05). The mean voided volume vas															
Some patients. The treatment had no side effects. Intermittent PTNS has no significant clinical effect on patients with refractory IC during 10NM330NM0.2P0_10203*4=1211PTNSNRCT NRCTvan der Pal 200614After stopping treatment for 6 weeks.NM330NM0.2P0_10203*4=1211PTNSNRCT OABvan der Pal 200614Meess.M330NM0.2P0_10203*4=1211PTNSNRCT OABvan der Pal 200614Meess.M330NM0.2P0_10203*4=1211PTNSNRCT OABvan der Pal 200614Meess.M330NM0.2P0_10203*4=1211PTNSNRCT OABvan der Pal 200614Meess.M330NM0.2P0_10203*4=1211PTNSNRCT OABvan der Pal 200614Meess.MAAAAAAAAAAAAMeess.MAAAAAAAAAAAAMeess.MAAAAAAAAAAAAAAAMeess.MAAA<															
The treatment had no side effects. Intermittent PTNS bas no significant clinical effect on patients with refractory IC during 10NM330NM0.2P0_10203*4=1211PTNSNRCT OABvan der Pal 2006 (63)14After stopping treatment fo 6 weeks.NM330NM0.2P0_10203*4=1211PTNSNRCT OABvan der Pal 2006 (63)14After stopping treatment fo 6 weeks, the requency and severity of incontinence episodes.NM330NM0.2P0_10203*4=1211PTNSNRCT OABvan der Pal 2006 (63)14Market significantly (p<0.05). After retreatment, the number of incontinence episodes. isinficantly worsened and it was significantly worsened and it was significantly worsened and it was significantlyaaaaaaaaaa															
had no side effects. Intermittent PTNS has no significant clinical effect on patients with refractory IC during 10NM330NM0.2P0_10203*4=1211PTNSNRCT OABvan der Pal 200614After stopping treatment for 6 weeks.NM330NM0.2P0_10203*4=1211PTNSNRCT OABvan der Pal 200614After stopping treatment for 6 weeks.SM330NM0.2P0_10203*4=1211PTNSNRCT OABvan der Pal 200614October (potomer van severity of incontinence episodes, incontinence episodes, incontinence episodes, incontinence episodes, incontinence episodes, incontinence disgnificantly (p<0.05). The mean voided volume was significantly (p<0.05). The mean voided volume was significantly (p<0.05). The mean voided volume was significantly improved duringII<															
effects. Intermittent PTNS has no significant clinical effect on patients with refractory IC during 10 weeks.NM330NM0.2P0_10203*4=1211PTNSNRCT OABvan der Pal 2006 (63)14After stopping treatment for 6 weeks, the frequency and severity of incontinence episodes. After retreatment, the number of incontinence episodes. After retreatment, the number of incontinence severity, as well as the QOL inproved significantly worsened and the worsened significantlyNM3.00NM0.2P0_10203*4=1211PTNSNRCT OABvan der Pal 2006 (63)14Improved significantly (p<0.05). The mean voided volume was significantly worsened and it was significantlyNR3.00NM0.2P0_10203*4=1211PTNSNRCT NABVan der Pal 2006 (63)14Improved significantly worsened and it was significantly worsened and it was significantlyNR141414Improved significantlyImproved significantlyImproved significantlyImproved significantlyImproved significantlyImproved significantlyImproved significantlyImproved significantlyImproved significantlyImproved significantlyImproved significantlyImproved significantlyImproved significantlyImproved significantlyImproved significantlyImproved significantlyImproved significantly															
Intermittent PTNS has no significant clinical effect on patients with refractory IC during 10NM330NM0.2P0_10203*4=1211PTNSNRCT OABvan der Pal 2006 (63)14After stopping treatment for 6 weeks, the frequency and severity of incontinence worsened as the QOL incontinence severity, as well as the QOL incontinence worsened and itNM330NM0.2P0_10203*4=1211PTNSNRCT OABvan der Pal 2006 (63)14as the QOL improved significantly (p=0.05). The mean voided volume was significantlyIII <td></td>															
PTNS has no significant clinical effect on patients with refractory IC during 10 weeks. After stopping treatment for 6 weeks, the frequency and severity of incontinence worsened significantly (p<0.05). The mean voided volume was significantly (p<0.05). The mean voided volume was significantly worsened and it was significantly worsened worde volume was															
significant clinical effect on patients with refractory IC during 10 weeks.NM330NM0.2P0_10203*4=1211PTNSNRCT OABvan der Pal 200614After stopping treatment for 6 weeks. the frequency and severity of incontinence worsened a she QOL improved significantly (p<0.05). The mean voided volume was significantlyNM330NM0.2P0_10203*4=1211PTNSNRCT OABvan der Pal 200614incontinence severity, as well a she QOL improved significantly (p<0.05). The mean voided volume was significantly30NM0.2P0_10203*4=1211PTNSNRCT OABvan der Pal (014M330NM0.2P0_10203*4=1211PTNSNRCT OABvan der Pal (014M444444444444144															
clinical effect on patients with refractory IC during 10 weeks. NM 3 30 NM 0.2 P 0_10 20 3*4=12 11 PTNS NRCT OAB van der Pal 2006 (63) 14 After stopping treatment for 6 weeks. the frequency and severity of incontinence eworsneed significantly (p<0.05). After retreatment, the number of incontinence episodes, incontinence esverity, as well as the QOL improved significantly (p<0.05). The mean voided weak subjuiction of the severity of significantly (p<0.05). The mean voided was significantly (p<0.05). The mean voided was significantly worsneed and it I I II PTNS NRCT OAB van der Pal 2006 (63) 14															
patients with refractory IC during 10 weeks. After stopping NM 3 30 NM 0.2 P 0_10 20 3*4=12 11 PTNS NRCT van der Pal 14 OAB 2006 (63) (63) (63) (63) (63) (63) (63) (63															
refractory IC during 10 M 3 30 NM 0.2 P 0_10 20 3*4=12 11 PTNS NRCT OAB van der Pal 2006 (63) 14 After stopping treatment for 6 weeks, the frequency and severity of incontinence worsened significantly (p<0.05). After retreatment, the number of incontinence episodes, incontinence severity, as well as the QOL improved significantly (p<0.05). The mean voided volume was significantly worsened and it was significantly I															
during 10 weeks. M 3 30 NM 0.2 P 0_10 20 3*4=12 11 PTNS NRCT OAB van der Pal 2006 (63) 14 After stopping treatment for 6 weeks. the frequency and severity of incontinence worsened significantly (p<0.05). After retreatment, the number of incontinence episodes, incontinence severity, as well as the QOL improved significantly (p<0.05). The mean voided volume was significantly (p<0.05). The mean voided volume was significantly III PTNS NRCT OAB van der Pal 2006 (63) 14 M 3 30 NM 0.2 P 0_10 20 3*4=12 11 PTNS NRCT OAB van der Pal 2006 (63) 14 M 1 S 1 S 10 14 14 14 Incontinence episodes, incontinence severity, as well as the QOL improved significantly (p<0.05). The mean voided volume was significantly improved during I															
weeks.ww <td>refractory IC</td> <td></td>	refractory IC														
After stopping treatment for 6 weeks, the frequency and severity of incontinence worsened significantly (p<0.05). After retreatment, the number of incontinence episodes, incontinence significantly (p<0.05). The mean voided vorsened at it was significantly (p<0.05). The mean voided is a label with the significantly (p<0.05). The mean voided with the significantly was significantly worsened and it was significantlyNM MO MO MO MONM MO MO MO MONM MO MO MO MONM MO MO MO MONM MO MO MO MONM MO MO MO MONM MO MO MO MONM MO MO MO MO MO MONM	during 10														
After stopping treatment for 6 weeks, the frequency and severity of incontinence worsened significantly (p<0.05). After retreatment, the number of incontinence episodes, incontinence significantly (p<0.05). The mean voided vorsened at it was significantly (p<0.05). The mean voided is a label with the significantly (p<0.05). The mean voided with the significantly was significantly worsened and it was significantlyNM MO MO MO MONM MO MO MO MONM MO MO MO MONM MO MO MO MONM MO MO MO MONM MO MO MO MONM MO MO MO MONM MO MO MO MO MO MONM	weeks.														
treatment for 6 OAB 2006 weeks, the (63) frequency and severity of incontinence (63) worsened worsened significantly (p<0.05). After		NM	3	30	NM	0.2	Р	0 10	20	3*4=12	11	PTNS	NRC	T van der Pal	14
weeks, the (63) frequency and severity of incontinence worsened worsened significantly (p<0.05). After								_							
frequency and severity of incontinence worsened significantly (p<0.05). After retreatment, the number of incontinence episodes, incontinence severity, as well as the QOL improved significantly (p<0.05). The mean voided volume was significantly worsened and it was significantly improved during															
severity of incontinence worsened significantly (p<0.05). After retreatment, the number of incontinence episodes, incontinence severity, as well as the QOL improved significantly (p<0.05). The mean voided volume was significantly worsened and it was significantly improved during														(00)	
incontinence worsened significantly (p<0.05). After retreatment, the number of incontinence episodes, incontinence severity, as well as the QOL improved significantly (p<0.05). The mean voided volume was significantly worsened and it was significantly improved during															
worsened significantly (p<0.05). After															
significantly (p<0.05). After retreatment, the number of incontinence episodes, incontinence severity, as well as the QOL improved significantly (p<0.05). The mean voided volume was significantly (p<0.05). The mean voided volume was significantly improved during															
(p<0.05). After retreatment, the number of incontinence episodes, incontinence severity, as well as the QOL improved significantly (p<0.05). The mean voided volume was significantly worsened and it was significantly improved during															
retreatment, the number of incontinence episodes, incontinence severity, as well as the QOL improved significantly (p<0.05). The mean voided volume was significantly worsened and it was significantly improved during															
number of incontinence episodes, incontinence severity, as well as the QOL improved significantly (p<0.05). The mean voided volume was significantly worsened and it was significantly improved during															
incontinence episodes, incontinence severity, as well as the QOL improved significantly (p<0.05). The mean voided volume was significantly worsened and it was significantly improved during															
episodes, incontinence severity, as well as the QOL improved significantly (p<0.05). The															
incontinence severity, as well as the QOL improved significantly (p<0.05). The mean voided volume was significantly worsened and it was significantly improved during															
severity, as well as the QOL improved significantly (p<0.05). The mean voided volume was significantly worsened and it was significantly improved during															
as the QOL improved significantly (p<0.05). The mean voided volume was significantly worsened and it was significantly improved during															
as the QOL improved significantly (p<0.05). The mean voided volume was significantly worsened and it was significantly improved during	severity, as well														
improved significantly (p<0.05). The															
significantly (p<0.05). The mean voided volume was significantly worsened and it was significantly improved during															
(p<0.05). The mean voided volume was significantly worsened and it was significantly improved during															
mean voided volume was significantly worsened and it was significantly improved during															
volume was significantly significantly worsened and it was significantly worsened audit improved during worsened audit															
significantly worsened and it was significantly worsened and it improved during worsened and it															
worsened and it was significantly improved during															
was significantly improved during	worsened and it														
improved during															
	innoroved during														
the retreatment															

period (p<0.05).															
Continued															
treatment is															
considered															
necessary in OAB patients															
who have been															
successfully															
treated with															
PTNS. The															
PTNS can be															
made effective															
again in patients															
who have already															
been successfully															
treated. Daily	1	1	30	9	0.2	М	0_10	20	1*6=6	30	PTNS		NRCT	Yoong	15
incontinence	1	1	30	9	0.2	IVI	0_10	20	1*0=0	30	PINS		OAB	2013	15
frequency and													UAD	(65)	
daily urge														(00)	
incontinence															
frequency during															
2 years were															
statistically															
similar to the															
recorded cases															
within 6 weeks															
and remained less than the															
baseline level.															
No side effects															
other than															
hypoesthesia															
were reported.															
Women who															
received PTNS															
for refractory															
OAB syndrome															
during 2 years,															
reported significant															
symptom relief.															
PTNS is an															
excellent safe															
durable															
therapeutic															
method in the															
second line of															
treatment.	NINT	3	30	9	NM	Р	0.10	20	2*5=10	18	PTNS	┝──┤	NRCT	Zhao	16
No statistically significant	NM	3	50	9	ININI	P	0_10	20	2*5=10	18	PINS		NKCT PB	2008	10
improvement													1 D	(69)	
was observed in														(02)	
VAS. The scores															
of ICPI, ICSI,															
and SF-36 were															
improved															
significantly. No															
significant															
difference was															
observed in the															
observed in the diary index and															
observed in the diary index and SF-36 scores															
observed in the diary index and SF-36 scores between the two groups and															
observed in the diary index and SF-36 scores between the two groups and before and after															
observed in the diary index and SF-36 scores between the two groups and before and after treatment. Out of															
observed in the diary index and SF-36 scores between the two groups and before and after treatment. Out of 18 patients, the															
observed in the diary index and SF-36 scores between the two groups and before and after treatment. Out of															

significant															
improvement in															
8 patients who															
evaluated the															
trial to be															
effective. All															
patients															
completed the 10															
therapy sessions															
without any side															
effects.															
Intermittent															
PTNS may be an															
alternative															
therapy for															
patients with IC															
symptoms.															
A significant	NM	5	30	NM	NM	Μ	0, 10	20	28	10	Intravesical	ľ	NRCT	Baykal	17
improvement											heparin +		Non-	2005	
was observed in											PTNS		ulcer	(66)	
the maximum													IC		
bladder capacity															
and pain															
symptoms. The															
intravesical															1
heparin and															
peripheral															
neuromodulation															
combination															
seems to be an															
alternative for															
patients with															
refractory IC.															
The mean daily	2	1	30	NM	0.2	Μ	0_10	20	1*12=12	53	PTNS		NRCT	Govier	18
urine voiding and	-	-	00	1 (1)1	•		0_10	-•		20	1110	ŕ	OAB	2001	10
urge													0110	(53)	
incontinence														(00)	
were reduced by															
25% and 35%,															
respectively															
(p<0.05).															
Statically															
significant															
improvements were observed in															
the pain and															
QOL indices. No															
significant side															
effects were															
observed in															
patients.															
Percutaneous															
peripheral															
afferent nerve															
stimulation is a															
safe, minimally															
invasive and															
effective therapy															
for treating															
refractory OAB															
and/or pelvic															
floor															
dysfunction.															
Subjective	1	4	30	9	0.2	Р	0_10	20	1*12=12	83	PTNS	N	NRCT	van Balken	19
success was seen													OAB	2006	
in 51.5% of														(61)	
patients. The SF-															
36 total score															
was low. The															
patients also															

													1	,
scored worse on														
the disease-														
specific QOL														
questionnaire,														
though the disease severity														
was not different.														
PTNS may be														
used as a tool for														
neuromodulation														
therapy in														
patients.														
Twelve and all	1	6	30	9	NM	NM	NM	NM	1*12=12	14	PTNS	NRCT	Capitanucci	20
14 patients with												OAB	2009	
dysfunctional													(49)	
voiding were improved (p not														
significant).														
During 1 year of														
follow-up, the														
dysfunctional														
voiding was														
improved greater														
in OAB patients														
(71% vs 41%) and the														
improvement														
remained the														
same at the 2-														
year evaluation.														
The voided														
volume and post-														
void residual urine became														
normal in most														
of the patients														
with														
dysfunctional														
voiding. PTNS is														
reliable and														
effective for														
nonneurogenic														
refractory lower urinary tract														
dysfunction in														
children. The														
PTNS efficacy														
seems to be														
better in														
dysfunctional														
voiding cases														
than in the OAB ones.														
The objective	1	2	30	9	0.2	Μ	0_10	20	12	90	PTNS	NRCT	Vandoninck	21
and subjective								_0				OAB	2003	- 1
success rate was													(64)	
56% and 64% in														
24-hour														
leakages,														
respectively.														
Urine voiding frequency in														
terms of volume														
chart data and														
QOL scores														
improved														
significantly (P <														
0.01).														
Cystometric														
bladder capacity														

(p=0.043) and														
bladder volume														
(p=0.012)														
increased														
significantly.														
PTNS cannot														
abolish Detrusor														
instability but it														
increases														
cystometric														
capacity and														
delays the onset														
of Detrusor														
instability. PTNS														
can be useful in														
the cystometry of														
patients without														
Detrusor														
instability or														
with late														
Detrusor														
instability onset.														
The scores of the	2	NM	30	9	0.2	Р	0_10	10	2*6=12	11	PTNS	NRCT	Fischer-	22
health-related	-	1 1111	50		0.2	1	0_10	10	2 0-12	11	11110	OAB	Sgrott	
												UAD	2009	
questionnaire and														
ICIQ-SF were													(52)	
improved														
significantly.														
PTNS can be														
considered as a														
good alternative														
to OAB therapy														
because it is safe														
and inexpensive														
as compared to														
other therapeutic														
methods and														
improves the														
QOL in women														
with refractory														
OAB.														
At 6, 12, and 24	1	4	30	9	0.2	Μ	0_10	20	14	53	PTNS	Cohort	Marchal	23
months of												OAB	2011	
follow-up,													(71)	
92.4%, 91.69%,														
and 62.5% of														
patients														
improved,														
respectively.														
Night-time														
urination														
frequency ($P \leq$														
.05) and QOL (P														
$\leq .01$) were														
significantly														
worsened. By the														
end of therapy,														
the first sensation														
of bladder filling														
increased. The														
mean post-														
therapy bladder														
capacity														
increased by 72.7														
mL ($P \leq .001$).														
PTNS is a good														
option for OAB														
therapy.														
According to the	1	3	30	NM	0.2	Р	2.5_9	20	1*12=12	1	PTNS	NRCT	Pytel	24
												OAB	2018	
urinary dairy,													=010	

incontinence														(60)	
frequency,															
frequent															
urination, and															
tendency to															
urinate															
improved.															
Urodynamic															
examination															
showed no															
significant															
change in the															
target															
parameters. No															
side effects were															
observed. PTNS															
is an effective,															
minimally															
invasive,															
tolerable and safe															
therapy for OAB															
syndrome.															
Daily urine	1	6	30	NM	0.2	Р	1_5	20	1*12=12	39	PTNS		NRCT	Kabay	25
voiding and daily													PB	2021	
emergency														(67)	
frequency															
decreased by 3.8															
and 4.7 times,															
respectively, and															
pain intensity,															
symptoms, and															
problem index															
showed a															
statistically															
significant															
improvement.															
The changes in															
the mean volume															
of urine voided															
were not															
statistically															
significant. The															
voiding volume															
improved by 8.4															
mL on average.															
In patients with															
painful bladder															
syndrome, the															
urine voiding															
diary, and scores															
of the ICSI, ICPI,															
and VAS															
improved after															
12 weeks of															
PTNS treatment.															
The PTNS															
treatment is a															
useful															
therapeutic															
option in the first															
line of the															
treatment to															
improve the															
symptoms of the															
painful bladder															
syndrome.															
NRCT: Non-rand															
syndrome, NM: N	lot mer	ntioned	, PTNS	S: Percu	itaneou	ıs tibial r	erve sti	mulatio	on, TTNS: "	Fransc	utaneous tibia	nerve	e stimulati	on, P: P-value,	
GRA: Global Res															

Urinary Tract Syndrome, S3: Sacral spinal nerve 3, ICSI: Interstitial Cystitis Symptom Index, SF_36: Short form with 36 questions, VAS: Visual Analogue Scale



Appendix 3. Voiding frequency after treatment according to the surface method stimulation and electrode placement

	1	After		В	efore			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% Cl
3.4.1 Movement threshold									
Alve, A. T 2020	7.84	2.84	39	11.81	3.73	39	12.0%	-3.97 [-5.44, -2.50]	_
Jacomo, R. H 2020	6.66	5	25	7.3	7.4	25	4.5%	-0.64 [-4.14, 2.86]	
Martin-Gracia, M. 2018	7.7	2.8	12	8.5	1.9	12	9.7%	-0.80 [-2.71, 1.11]	
Subtotal (95% CI)			76			76	26.2%	-2.02 [-4.48, 0.43]	
Heterogeneity: Tau ² = 3.39	; Chi² = 7	⁷ .93, di	f = 2 (P	= 0.02);	 2 = 75	5%			
Test for overall effect: Z = 1	.61 (P =	0.11)							
3.4.2 Sensory threshold									
Zonić-Imamović, M. 2021	9.4	3.4	30	12.9	4.4	30	9.3%		
Subtotal (95% CI)			30			30	9.3%	-3.50 [-5.49, -1.51]	
Heterogeneity: Not applica	ble								
Test for overall effect: Z = 3	.45 (P =	0.0008	i)						
3.4.3 Pain threshold									
Abulseoud, A 2018	10.6	2.32	15	13.3	1.64	15	12.2%	-2.70 [-4.14, -1.26]	_
Bacchi 2021	7.1	3.24	52	9.9	3.24	52	13.4%	-2.80 [-4.05, -1.55]	
Bykoviene 2018	7.52	2.3	22	8.86	3.24	22	11.0%	-1.34 [-3.00, 0.32]	
Pierre, M. L. 2021	8.4	3.9	26	11	6.3	26	6.1%	-2.60 [-5.45, 0.25]	
Ramirez-Garcia, I. 2018	9	2.7	34	10.6	3.8	34	11.5%	-1.60 [-3.17, -0.03]	
Welk 2020	10	1.48	26	9.66	4.44	26	10.2%		
Subtotal (95% CI)			175			175	64.5%	-1.81 [-2.77, -0.86]	•
Heterogeneity: Tau ² = 0.69				= 0.08);	I² = 50)%			
Test for overall effect: Z = 3	.72 (P =	0.0002	2)						
Total (95% CI)			281			281	100.0%	-2.07 [-2.93, -1.21]	•
Heterogeneity: Tau ² = 1.02	; Chi ² = 2	20.70, (df = 9 (l	P = 0.01);	57%		-	-4 -2 0 2 4
Test for overall effect: Z = 4	.74 (P <	0.0000	01)						-4 -2 0 2 4 After Before
Test for subgroup different	es: Chi ^z	= 2.25	i, df = 2	(P = 0.3	33), i ž =	= 11.09	6		Alter Delote

Appendix 4. Voiding frequency after treatment according to the surface method stimulation and intensity of electrical stimulation

		After			Before			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% Cl
4.5.1 24<									
Klingler, H. C.2000 Subtotal (95% Cl)	188	41.5	15 15	133	31.66	15 15	10.2% 10.2%	55.00 [28.58, 81.42] 55.00 [28.58, 81.42]	
			15			15	10.270	JJ.UU [20.J0, 01.42]	
Heterogeneity: Not appli									
Test for overall effect: Z =	= 4.08 (P	< 0.000	J1)						
4.5.3 12-24									
Capitanucci, M 2009	137	91	14	168	62	14	4.2%	-31.00 [-88.68, 26.68]	
Finazzi-Agro, E. 2010	186.5	8.51	18	150.5	7.91	18	15.7%	36.00 [30.63, 41.37]	+
Kabay, S. 2021	149.2	23.7	39	140.8	22.1	39	14.8%	8.40 [-1.77, 18.57]	
MacDiarmid, S. 20010	187	87	33	145	78	33	6.9%	42.00 [2.13, 81.87]	
Peters 2009	183	75.6	110	169.5	78.9	110	11.9%	13.50 [-6.92, 33.92]	+ -
Rajab, M. 2015	141	36.26	20	131.8	35.37	20	11.4%	9.20 [-13.00, 31.40]	_ + •
Vanbalken, M. 2001	159.3	65.14	37	140	82.2	37	8.2%	19.30 [-14.49, 53.09]	
van der Pal, F. 2006	187.5	100.6	11	107.6	51.5	11	3.4%	79.90 [13.11, 146.69]	•
Vandoninck, V. 2003	190	60.5	90	135	51.16	90	13.2%	55.00 [38.63, 71.37]	• •
Subtotal (95% CI)			372			372	89.8%	25.26 [10.64, 39.88]	
Heterogeneity: Tau ² = 31	0.36; Cł	ni² = 44.	14, df=	:8 (P < I	0.00001); ² = 8	2%		
Test for overall effect: Z =	= 3.39 (P	= 0.000)7)						
Total (95% CI)			387			387	100.0%	28.28 [14.43, 42.13]	•
Heterogeneity: Tau ² = 30)9.86; Cł	ni² = 47.	49, df=	9 (P < I	0.00001); l² = 8	1%		
Test for overall effect: Z =	= 4.00 (P	< 0.000)1)						-100 -50 0 50 100 After Before
Test for subaroup differe	ences: C	hi² = 3.7	'3. df =	1 (P = 0	.05), l ² =	= 73.29	6		Aller Delute

Appendix 5. Voided volume after treatment according to the needle method in all studies and considering subgroups of treatment duration

		After			Before			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% Cl
4.1.1 Method 1									
Finazzi-Agro, E. 2010	186.5	8.51		150.5	7.91	18	15.7%	36.00 [30.63, 41.37]	•
Rajab, M. 2015 Subtotal (95% CI)	141	36.26	20 38	131.8	35.37	20 38	11.4% 27.1%	9.20 [-13.00, 31.40] 24.85 [-1.04, 50.74]	•
Heterogeneity: Tau ² = 29 Test for overall effect: Z =				1 (P = 0	.02); I² =	: 81%			
4.1.2 Method 2									
Klingler, H. C.2000	188	41.5	15	133	31.66	15	10.2%	55.00 [28.58, 81.42]	_ _
Vandoninck, V. 2003	190	60.5	90	135	51.16	90	13.2%	55.00 [38.63, 71.37]	
Subtotal (95% CI)			105			105	23.3%	55.00 [41.09, 68.91]	•
Heterogeneity: Tau ² = 0. Test for overall effect: Z :				P = 1.00)); I² = O	%			
4.1.3 Method 3									
MacDiarmid, S. 20010	187	87	33	145	78	33	6.9%	42.00 [2.13, 81.87]	
Peters 2009	183	75.6	110	169.5	78.9	110	11.9%	13.50 [-6.92, 33.92]	+
Vanbalken, M. 2001	159.3	65.14	37	140	82.2	37	8.2%	19.30 [-14.49, 53.09]	_ •
van der Pal, F. 2006	187.5	100.6	11	107.6	51.5	11		79.90 [13.11, 146.69]	
Subtotal (95% CI)			191			191	30.5%	26.96 [5.48, 48.44]	•
Heterogeneity: Tau ² = 10 Test for overall effect: Z =	•			3 (P = 0	.21); I² =	: 34%			
4.1.4 Method 6									
Capitanucci, M 2009	137	91	14	168	62	14	4.2%	-31.00 [-88.68, 26.68]	
Kabay, S. 2021	149.2	23.7	39	140.8	22.1	39	14.8%	8.40 [-1.77, 18.57]	
Subtotal (95% CI)			53			53	19.1%	-0.65 [-33.13, 31.83]	
Heterogeneity: Tau ² = 33 Test for overall effect: Z =	•			1 (P = 0	.19); I² =	42%			
Total (95% CI)			387			387	100.0%	28.28 [14.43, 42.13]	•
Heterogeneity: Tau ² = 30	09.86; Cł	ni² = 47.	.49, df=	= 9 (P <	0.00001	l); l² = 8	31%	-	
Test for overall effect: Z:									-100 -50 Ó 50 100 After Pefere
Test for subgroup differe			·	= 3 (P =	0.004).	² = 77.	.2%		After Before

Appendix 6. Voided volume after treatment according to the needle method in all studies and considering needle placement

		After		E	Before			Mean Difference		Mean Difference	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl		IV, Random, 95% Cl	
4.7.1 Motor threshold											
Klingler, H. C.2000	188	41.5	15	133	31.66	15	10.5%	55.00 [28.58, 81.42]			
MacDiarmid, S. 20010	187	87	33	145	78	33	7.0%	42.00 [2.13, 81.87]			
Peters 2009	183	75.6	110	169.5	78.9	110	12.5%	13.50 [-6.92, 33.92]		+	
Vanbalken, M. 2001	159.3	65.14	37	140	82.2	37	8.4%	19.30 [-14.49, 53.09]			
Vandoninck, V. 2003 Subtotal (95% Cl)	190	60.5	90 285	135	51.16	90 285	13.8% 52.3%	55.00 [38.63, 71.37] 37.53 [17.53, 57.52]		•	
Heterogeneity: Tau ² = 3 Test for overall effect: Z				= 4 (P =	0.01); I ^z	= 68%					
4.7.2 Sensory threshol Subtotal (95% CI)	d		0			0		Not estimable			
Heterogeneity: Not appl	icahle		-			-					
Test for overall effect: N		able									
4.7.3 Pain Threshold											
Finazzi-Agro, E. 2010	186.5	8.51	18	150.5	7.91	18	16.8%	36.00 [30.63, 41.37]		+	
Kabay, S. 2021	149.2	23.7		140.8	22.1	39	15.7%	8.40 [-1.77, 18.57]			
Rajab, M. 2015	141	36.26	20	131.8	35.37	20	11.9%	9.20 [-13.00, 31.40]		— •	
van der Pal, F. 2006	187.5	100.6	11	107.6	51.5	11	3.4%	79.90 [13.11, 146.69]			-
Subtotal (95% CI)			88			88	47.7%	23.73 [2.30, 45.16]			
Heterogeneity: Tau ² = 3	41.91; CI	ni² = 27.	.56, df=	:3 (P <	0.00001	l); I² = 8	39%				
Test for overall effect: Z	= 2.17 (P	= 0.03))								
Total (95% CI)			373			373	100.0%	30.81 [17.06, 44.55]		•	
Heterogeneity: Tau ² = 2	86.13; CI	ni² = 43.	.07, df=	:8 (P <	0.00001	l); l² = 8	31%		-100 -50		100
									-100 -50		100
Test for overall effect: Z	– 4.39 (F	~ 0.00i	017							After Before	

Appendix 7. Voided volume after treatment according to the needle method in all studies and considering electrical stimulation threshold

		After		E	Before			Mean Difference		Mean Differe	nce	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl		IV, Random, 9	5% CI	
6.5.1 24<												
Subtotal (95% CI)			0			0		Not estimable				
Heterogeneity: Not applic	able											
Test for overall effect: Not	t applicat	ole										
6.5.3 12-24												
Abulseoud, A 2018	138	37.79	15	110.4	14.92	15	60.6%	27.60 [7.04, 48.16]				
Boudaoud, N. 2015	265.6	120.7	11	184.2	102.6	11	5.2%	81.40 [-12.22, 175.02]				\rightarrow
Ramirez-Garcia, I. 2018	165.9	67	34	158.1	67.2	34	34.3%	7.80 [-24.10, 39.70]				
Subtotal (95% CI)			60			60	100.0%	23.58 [1.91, 45.26]		-		
Heterogeneity: Tau ² = 91.	90; Chi ^z :	= 2.55, (df = 2 (l	P = 0.28	l); l² = 22	2%						
Test for overall effect: Z =	2.13 (P =	= 0.03)										
Total (95% CI)			60			60	100.0%	23.58 [1.91, 45.26]				
Heterogeneity: Tau ² = 91.	.90; Chi *:	= 2.55, (df = 2 (l	P = 0.28	l); l² = 22	2%			400			
Test for overall effect: Z =	2.13 (P =	• 0.03)	,						-100 -5	50 Ó After Bef	50	100
Test for subgroup differen	nces: Not	t applica	able							Aller Dell	ле	

Appendix 8. Voided volume after treatment according to the surface method and considering electrical stimulation duration

		After		1	Before			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% Cl
6.1.1 Method 1 Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not ap Test for overall effect:									
6.1.2 Method 2									
Boudaoud, N. 2015 Subtotal (95% Cl)	265.6		11 11	184.2	102.6	11 11		81.40 [-12.22, 175.02] 81.40 [-12.22, 175.02]	
Heterogeneity: Not ap Test for overall effect:			09)						
6.1.3 Method 3 Subtotal (95% CI) Heterogeneity: Not ap Test for overall effect:	•		0			0		Not estimable	
6.1.4 Method 6 Abulseoud, A 2018 Subtotal (95% CI) Heterogeneity: Not ap		37.79	15 15	110.4	14.92	15 15	87.5% 87.5 %	27.60 [7.04, 48.16] 27.60 [7.04, 48.16]	•
Test for overall effect:	Z = 2.63	(P = 0.	,						
Total (95% CI) Heterogeneity: Tau ² = Test for overall effect: Test for subgroup diff	Z = 1.93	(P = 0.	05)			l² = 179		34.32 [-0.54, 69.18]	-200 -100 0 100 200 After Before

Appendix 9. Voided volume after treatment according to the surface method and considering the needle placement

		After		1	Before			Mean Difference		Mean	Difference		
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl		IV, Rano	iom, 95% Cl	1	
6.7.1 Motor threshold													
Subtotal (95% CI)			0			0		Not estimable					
Heterogeneity: Not applic	able												
Test for overall effect: Not	applicat	le											
6.7.2 Sensory threshold													
Subtotal (95% CI)			0			0		Not estimable					
Heterogeneity: Not applic	able												
Test for overall effect: Not	applicab	le											
6.7.3 Pain Threshold													
Abulseoud, A 2018	138	37.79	15	110.4	14.92	15	60.6%	27.60 [7.04, 48.16]				_	
Boudaoud, N. 2015	265.6	120.7	11	184.2	102.6	11	5.2%	81.40 [-12.22, 175.02]		-			→
Ramirez-Garcia, I. 2018	165.9	67	34	158.1	67.2	34	34.3%	7.80 [-24.10, 39.70]					
Subtotal (95% CI)			60			60	100.0%	23.58 [1.91, 45.26]				-	
Heterogeneity: Tau ² = 91.	90; Chi ^z :	= 2.55, (df = 2 (P = 0.28	3); * = 23	2%							
Test for overall effect: Z =	2.13 (P =	: 0.03)											
Total (95% CI)			60			60	100.0%	23.58 [1.91, 45.26]				-	
Heterogeneity: Tau ² = 91.	90; Chi ^z :	= 2.55, (df = 2 (P = 0.28	3); I² = 23	2%			400		<u> </u>		4.00
Test for overall effect: Z =	2.13 (P =	0.03)							-100	-50 Afte	u er Before	50	100
Test for subgroup differen	nces: Not	t applica	able							Allo	a Delute		

Appendix 10. Voided volume after treatment according to the surface method and considering the stimulation threshold

Appendix 11. Urinary incontinence, urgency, maximum cyctometric capacity, and urgency urinary incontinence

The other outcomes related to the efficacy of different methods of PTNS results are summarized in supplementary files. According to the results of the electrode method, nine studies in subgroups of methods 3, 2, 1, and 6 were included in the meta-analysis. After treatment, a reduction of incontinence episodes was demonstrated (Point estimate: -2.18; 95% CI: -1.54 to -2.81, P<0.00001, Z = 6.70). The intensity of the stimulation at the level of stimulation of the motor threshold and pain causes improvement and a significant decrease in the average frequency of urine leakage. In the surface method of stimulation electrode method 5 significantly reduced the UI episodes. However, in method 1 there was no significant reduction. The mean difference of urinary incontinence after treatment according to the surface method and considering the stimulation threshold decreased by 0.83 times (95% CI: -1.41 to -0.26) and this rate was statistically significant, P=0.005). However, in subgroup analysis, this rate was only significant in the pain threshold (Supplementary files 2 a-d).

The results of different method of stimulation on urgency episodes are illustrated in figures Supplementary files 2 e-g.

Although the mean difference of the maximum cystometric capacity after treatment with this stimulation was increased (58.24 ml, P<0.003); I2=78.0%), only, the first and fourth methods of electrodeposition improved the average maximum cystometric capacity (supplementary file 2h, and i).

Considering that the frequency of urgency urinary incontinence (UUI), in 14 studies, a reduction in the frequency of UUI was observed (Point estimate: -1.23 times (95% CI: -0.57 to -1.88, P = 0.0002. Methods 1, 3, and 6 of electrode placement significantly reduced the mean UUI (supplementary file 2g). In the surface method, electrode placement in methods of 1,2, and 5 significantly reduced the mean of UUI (supplementary file 2h). Stimulation at the threshold of movement and pain caused a significant decrease in the mean of UUI episodes (supplementary file 2j-l).

		After		E	Before			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% Cl
9.1.1 Method 1									
Finazzi-Agro, E. 2010	1.8	0.16	17	4.1	0.31	17	20.1%	-2.30 [-2.47, -2.13]	•
Fischer-Sgrott, F. O 2009	38.18	13.82	11	74.55	27.75	11	0.1%	-36.37 [-54.69, -18.05]	
Preyer, O., et al. 2015	2	3.5	18	1.5	2	18	7.4%	0.50 [-1.36, 2.36]	
Subtotal (95% CI)			46			46	27.7%	-2.61 [-6.76, 1.54]	
Heterogeneity: Tau² = 8.97			f = 2 (P	< 0.000	1); I² = 9	31%			
Test for overall effect: Z = 1	.23 (P = I	0.22)							
9.1.2 Method 2									
Vandoninck, V. 2003	2	2.66	90	5	3	90	15.2%	-3.00 [-3.83, -2.17]	+
Subtotal (95% CI)	-		90	-	-	90	15.2%	-3.00 [-3.83, -2.17]	♦
Heterogeneity: Not applica	ble								-
Test for overall effect: Z = 7		0.00001	I)						
9.1.3 Method 3									
Sherif 2017	2.6	0.7	30	4.7	1.02	30	18.6%	-2.10 [-2.54, -1.66]	+
Sonmez, R. 2022	1.15	1.34	19	4.31	3.3	19	8.9%	-3.16 [-4.76, -1.56]	- -
Ugurlucan 2013	1.4	1.5	17	2.4	2.3	17	11.0%	-1.00 [-2.31, 0.31]	
Vanbalken, M. 2001	5	3.46	37	9.8	5.6	37	6.2%	-4.80 [-6.92, -2.68]	_
van der Pal, F. 2006	3.1	4.9	11	7.4	12	11	0.7%	-4.30 [-11.96, 3.36]	
Subtotal (95% CI)			114			114	45.4%	-2.53 [-3.64, -1.41]	◆
Heterogeneity: Tau ² = 0.84			`	= 0.03);	2 = 63°	%			
Test for overall effect: Z = 4	.45 (P < I	0.00001	I)						
9.1.4 Method 6									
Onal 2012	0.9	1.4	18	2.1	2.2	18	11.8%	-1.20 [-2.40, 0.00]	T
Subtotal (95% Cl)			18			18	11.8%	-1.20 [-2.40, 0.00]	•
Heterogeneity: Not applica									
Test for overall effect: Z = 1	.95 (P = I	0.05)							
Total (95% CI)			268			268	100.0%	-2.18 [-2.81, -1.54]	♦
Heterogeneity: Tau ² = 0.52	Chi ² = 3	9 N7 M		< 0.000	1): P= 3				·····
Test for overall effect: Z = 6				0.000	<i>1</i>	1.10			-10 -5 0 5 10
Test for subgroup differenc			· ·	Έ = 0.1°	7) ² = 4	87%			After Before

Appendix 11a. Incontinence episodes after treatment in different methods of stimulation

Method 1: The first electrode is placed 3-5 cm above the medial malleolus, and the second electrode is placed around the medial malleolus.

Method 2: The first electrode is placed less than 3 cm above the medial malleolus, and the second electrode is placed around the medial malleolus.

Method 3: The first electrode is placed 3-5 cm above the medial malleolus, and the second electrode is placed on the arch of the foot.

Method 4: The first electrode is placed less than 3 cm above the medial malleolus, and the second electrode is placed on the arch of the foot.

Method 5: The first electrode is placed more than 5 cm above the medial malleolus, and the second electrode is placed around the medial malleolus.

Method 6: Both electrodes are placed on the tibial nerve on the foot at points other than the defined methods.

		After		E	Sefore			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% Cl
9.2.1 Motor threshold									
Onal 2012	0.9	1.4	18	2.1	2.2	18	11.8%	-1.20 [-2.40, 0.00]	+
Sherif 2017	2.6	0.7	30	4.7	1.02	30	18.6%	-2.10 [-2.54, -1.66]	•
Ugurlucan 2013	1.4	1.5	17	2.4	2.3	17	11.0%	-1.00 [-2.31, 0.31]	•
Vanbalken, M. 2001	5	3.46	37	9.8	5.6	37	6.2%	-4.80 [-6.92, -2.68]	+
Vandoninck, V. 2003	2	2.66	90	5	3	90	15.2%	-3.00 [-3.83, -2.17]	•
Subtotal (95% CI)			192			192	62.8 %	-2.24 [-3.12, -1.36]	•
Heterogeneity: Tau ² = 0.67 Test for overall effect: Z = 4				= 0.004); ² = 74	1%			
9.2.2 Pain Threshold									
Finazzi-Agro, E. 2010	1.8	0.16	17	4.1	0.31	17	20.1%	-2.30 [-2.47, -2.13]	
Fischer-Sgrott, F. O 2009	38.18	13.82	11	74.55	27.75	11	0.1%	-36.37 [-54.69, -18.05]	←
Preyer, O., et al. 2015	2	3.5	18	1.5	2	18	7.4%	0.50 [-1.36, 2.36]	+
Sonmez, R. 2022	1.15	1.34	19	4.31	3.3	19	8.9%	-3.16 [-4.76, -1.56]	+
van der Pal, F. 2006	3.1	4.9	11	7.4	12	11	0.7%	-4.30 [-11.96, 3.36]	
Subtotal (95% CI)			76			76	37.2%	-2.38 [-4.59, -0.17]	•
Heterogeneity: Tau ² = 3.66	5; Chi r = 2	23.33, d	f = 4 (P	= 0.000	1); I² = (33%			
Test for overall effect: Z = 2	2.11 (P = I	0.03)							
Total (95% CI)			268			268	100.0%	-2.18 [-2.81, -1.54]	1
Heterogeneity: Tau ² = 0.52) ∩hiZ – 3	0 07 d	f – 0 /P	< 0.000	1) (2 – 1	77%			-20 -10 0 10 20

Appendix 11b. Incontinence episodes after treatment in different stimulation threshold

	1	After		В	efore			Mean Difference		Mean Differe	ence	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl		IV, Random, 9	5% CI	
10.1.1 Method 1												
Martin-Gracia, M. 2018	0.2	1.7	12	0.5	1	12	31.6%	-0.30 [-1.42, 0.82]				
Subtotal (95% CI)			12			12	31.6%	-0.30 [-1.42, 0.82]				
Heterogeneity: Not appl	icable											
Test for overall effect: Z	= 0.53 (P	= 0.6	0)									
10.1.2 Method 5												
Bykoviene 2018	2.89	4.83	22	3.84	4.63	22	5.0%	-0.95 [-3.75, 1.85]				
Pierre, M. L. 2021	0.7	1.4	26	1.8	1.5	26	63.3%	-1.10 [-1.89, -0.31]				
Subtotal (95% CI)			48			48	68.4%	-1.09 [-1.85, -0.33]		-		
Heterogeneity: Tau ² = 0.	.00; Chi ^z	= 0.01	, df = 1	(P = 0.9)	92); * =	:0%						
Test for overall effect: Z	= 2.81 (P	= 0.0	05)									
Total (95% CI)			60			60	100.0%	-0.84 [-1.47, -0.21]		-		
Heterogeneity: $Tau^2 = 0$.	.00; Chi ² :	= 1.32	. df = 2	(P = 0.5)	52); ² =	:0%			_t	t l	<u> </u>	!
Test for overall effect: Z	•								-4	-2 0 After Bef	2	4
The state of the second st	` ^			4.00	0.00		~~			After Bef	ore	

Test for subgroup differences: Chi² = 1.31, df = 1 (P = 0.25), l² = 23.8%

Appendix 11c. Incontinence episodes after treatment according to the surface method and considering the needle placement

	1	After		В	efore			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% Cl
10.2.1 Motor threshold									
Martin-Gracia, M. 2018 Subtotal (95% CI)	0.2	1.7	12 12	0.5	1	12 12	26.7% 26.7 %		-
Heterogeneity: Not applic:	ahle		12			12	2011 /0	-0.00[-1.42, 0.02]	
Test for overall effect: Z =		= 0.60)							
10.2.2 Pain threshold									
Bykoviene 2018	2.89	4.83	22	3.84	4.63	22	4.2%	-0.95 [-3.75, 1.85]	
Pierre, M. L. 2021	0.7	1.4	26	1.8	1.5	26	53.4%	-1.10 [-1.89, -0.31]	
Ramirez-Garcia, I. 2018 Subtotal (95% CI)	0.9	2.9	34 82	1.7	3.2	34 82	15.7% 73.3 %	-0.80 [-2.25, 0.65] - 1.03 [-1.70, -0.35]	•
Heterogeneity: Tau² = 0.0 Test for overall effect: Z =		•	,	° = 0.94	;); ² = ()%			
Total (95% CI)			94			94	100.0%	-0.83 [-1.41, -0.26]	•
Heterogeneity: Tau ² = 0.00 Test for overall effect: Z =	•			P = 0.72	?); ² = ()%		-	-4 -2 0 2 4 After Before
Test for subgroup differer	nces: Ch	i ^z = 1.2	0, df=	1 (P = 0	1.27), l ^a	= 16.4	%		Aller Belefe

Appendix 11d. Incontinence episodes after treatment according to the surface method and considering the stimulation threshold.

		After		E	Before			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% Cl
13.1.1 Method 3									
Elshora, I. A 2020	6.43	0.551	15	7.34	0.561	15	33.9%	-0.91 [-1.31, -0.51]	+
MacDiarmid, S. 20010	3.7	2.6	33	6.8	4.2	33	7.2%	-3.10 [-4.79, -1.41]	
Subtotal (95% CI)			48			48	41.1%	-1.85 [-3.97, 0.28]	
Heterogeneity: Tau ² = 2.01; Chi ² =	6.14, df	= 1 (P :	= 0.01);	l ² = 849	6				
Test for overall effect: Z = 1.70 (P	= 0.09)								
13.1.2 Method 6									
Carlo Vecchioli-Scaldazza 2018	3	1.14	35	4.35	0.59	35	32.9%	-1.35 [-1.78, -0.92]	-
Onal 2012	0.9	1.5	18	1.5	2.3	18	11.2%	-0.60 [-1.87, 0.67]	
Ugurlucan 2013	1.3	0.5	35	2	3.1	35	14.8%	-0.70 [-1.74, 0.34]	_
Subtotal (95% CI)			88			88	58.9%	-1.16 [-1.60, -0.72]	◆
Heterogeneity: Tau ² = 0.02; Chi ² =	2.22, df	= 2 (P :	= 0.33);	I ^z = 109	6				
Test for overall effect: Z = 5.16 (P	< 0.0000	1)							
Total (95% CI)			136			136	100.0 %	-1.15 [-1.64, -0.65]	•
Heterogeneity: Tau ² = 0.15; Chi ² =	8.77, df	= 4 (P :	= 0.07);	I ² = 549	6				
Test for overall effect: Z = 4.55 (P									-4 -2 U 2 4 After Before
Test for subgroup differences: Ch		•	(P = 0.5	i3), ² = (0%				AIGI DEINIE

Appendix 11e. Urgency episodes after treatment in different methods of stimulation

	1	After		В	efore			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% Cl
14.1.1 Method 1									
Jacomo, R. H 2020	0	0.24	25	1.33	0.27	25	25.1%	-1.33 [-1.47, -1.19]	•
Martin-Gracia, M. 2018	3.2	3.6	12	1.7	2.8	12	6.8%	1.50 [-1.08, 4.08]	_ _
Subtotal (95% CI)			37			37	31.8%	-0.22 [-2.93, 2.49]	•
Heterogeneity: Tau ² = 3.1	I4; Chi²÷	= 4.61	, df = 1	(P = 0.0	13); I ^z =	78%			
Test for overall effect: Z =	: 0.16 (P	= 0.87	7)						
444014-40									
14.1.2 Method 2	_								
Manriquez, V. 2016	5	2.5	34	14	8.16			-9.00 [-11.87, -6.13]	
Subtotal (95% CI)			34			34	5.8%	-9.00 [-11.87, -6.13]	-
Heterogeneity: Not applic									
Test for overall effect: Z =	: 6.15 (P	< 0.00	JOO1)						
14.1.3 Method 5									
Alve, A. T 2020	0.51	0.95	39	2.21	2.56	39	19.4%	-1.70 [-2.56, -0.84]	+
Bacchi 2021	0.9	0.28	52	3.3	0.26	52	25.2%	-2.40 [-2.50, -2.30]	•
Pierre, M. L. 2021	1	1.6	26	3.2	2.1	26	17.8%	-2.20 [-3.21, -1.19]	
Subtotal (95% CI)			117			117	62.4%	-2.29 [-2.63, -1.94]	•
Heterogeneity: Tau ² = 0.0	04; Chi <mark>≊</mark> ∘	= 2.66	, df = 2	(P = 0.2	:6); I ^z =	25%			
Test for overall effect: Z =	: 13.02 (P < 0.(00001)						
Total (95% CI)			188			188	100.0%	-2.08 [-2.86, -1.29]	◆
Heterogeneity: Tau ² = 0.8	64; Chi ² :	= 173.	16, df=	5 (P < I	0.0000)1); ² =	97%		
Test for overall effect: Z =									-10 -5 Ó Ś 10 After Before
Test for subgroup differe	nces: Cl	hi² = 2	3.15, dt	= 2 (P	< 0.00	001), I ^z	= 91.4%		Allei Belole

Appendix 11f. Urgency episodes after treatment according to the surface method and considering the stimulation methods



Appendix 11g. Urgency episodes after treatment according to the surface method and considering the stimulation threshold

		After			Before			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% Cl
5.1.1 Method 1									
Kizilyel, S. 2015 Subtotal (95% CI)	1,473	90.6	10 10	1,293	33.7	10 10		180.00 [120.09, 239.91] 180.00 [120.09, 239.91]	•
Heterogeneity: Not appl	icable								
Fest for overall effect: Z	= 5.89 (F	° < 0.00I	001)						
5.1.2 Method 2									
(lingler, H. C.2000	197	52.33	15	252	51	15	17.8%	-55.00 [-91.98, -18.02]	
/andoninck, V. 2003 Subtotal (95% Cl)	340	71.66	90 105	263	119.16	90 105	18.9% 36.6 %	77.00 [48.27, 105.73] 11.53 [-117.82, 140.89]	
Heterogeneity: Tau ² = 8	426.61; (Chi² = 3I).53, df	= 1 (P <	< 0.00001	l); i ² = 9	97%		
Test for overall effect: Z	= 0.17 (F	P = 0.86)							
5.1.3 Method 4									
/larchal, C. 2011	322.5	19.05		249.8	16.71	53	20.8%	72.70 [65.88, 79.52]	
Subtotal (95% CI)			53			53	20.8 %	72.70 [65.88, 79.52]	•
Heterogeneity: Not appl									
est for overall effect: Z	= 20.89 ((P < 0.01	JUU1)						
.1.4 Method 6									
Dnal 2012		149.7		409.2		18	8.9%	-15.90 [-117.83, 86.03]	
Rio-Gonzalez, S. 2017	324.5	127.3		251.9	119.8	200	19.4%	72.60 [48.37, 96.83]	
Subtotal (95% CI)	107.00.	0.L.77 0	218	4.00	0.4.00.17	218	28.3%	42.77 [-39.23, 124.76]	
Heterogeneity: Tau² = 2 Fest for overall effect: Z				еп (P =	0.10); If =	:04%)			
		5.01,							
fotal (95% CI)			386				100.0%	58.24 [18.15, 98.33]	
Heterogeneity: Tau ² = 2				= 5 (P <	< 0.00001	i); i² = 9	92%	-	-200 -100 0 100 200
Test for overall effect: Z			·						After Before
est for subgroup differ	ences: C	nr=13	.61, df:	= 3 (P =	0.003), P	•= 78.0	1%		

Appendix 11h. maximum cystometric capacity after treatment according to the stimulation methods

	1	After		В	efore			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% Cl
8.1.1 Method 2									
Boudaoud, N. 2015	274.5	129	11	215.7	106	11	26.4%	58.80 [-39.87, 157.47]	
Subtotal (95% CI)			11			11	26.4%	58.80 [-39.87, 157.47]	
Heterogeneity: Not ap	plicable								
Test for overall effect:	Z=1.17	(P = 0.3	24)						
8.1.2 Method 5									
AMARENCO 2003	377.4	117.9	44	221	129.5	44	37.5%	156.40 [104.65, 208.15]	
Subtotal (95% CI)			44			44	37.5%	156.40 [104.65, 208.15]	
Heterogeneity: Not ap	plicable								
Test for overall effect:	Z = 5.92	(P < 0.0	00001)						
8.1.3 Method 6									
Abulseoud, A 2018	296.4	99	15	250.13	56.24	15	36.1%	46.27 [-11.35, 103.89]	+- B
Subtotal (95% CI)			15			15	36.1%	46.27 [-11.35, 103.89]	
Heterogeneity: Not ap	plicable								
Test for overall effect:	Z = 1.57	(P = 0.1	12)						
Total (95% CI)			70			70	100.0%	90.88 [11.67, 170.09]	
Heterogeneity: Tau ² =	3657.70	l: Chi ^z =	8.57. (df = 2 (P =	= 0.01):	$ ^2 = 779$	6		
Test for overall effect:									-200 -100 Ó 100 20
Test for subgroup diffe			,	f = 2 (P =	0.01) 1	² = 767	96		After Before

Appendix 11i. maximum cystometric capacity after treatment according to the surface method and considering the stimulation method

	1	After		E	efore			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% Cl
11.1.1 Method 1									
Kizilyel, S. 2015	0.13	0.23	10	1.2	1.6				
Subtotal (95% CI)			10			10	19.0%	-1.07 [-2.07, -0.07]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 2.09 (P	= 0.04)								
11.1.2 Method 3									
Elshora, I. A 2020	5.62	0.53	15	6.25	0.557	15	30.7%	-0.63 [-1.02, -0.24]	
MacDiarmid, S. 20010	0.9	1.2	33	2.4	2.2	33	21.7%	-1.50 [-2.36, -0.64]	
Subtotal (95% CI)			48			48	52.4%	-0.98 [-1.81, -0.14]	
Heterogeneity: Tau ² = 0.26; Chi ² = Test for overall effect: Z = 2.29 (P :		= 1 (P	= 0.07); I² = 70	%				
11.1.3 Method 6									
Carlo Vecchioli-Scaldazza 2018	2.24	1.35	35	4	0.69	35			-
Subtotal (95% CI)			35			35	28.6%	-1.76 [-2.26, -1.26]	•
Heterogeneity: Not applicable									
Test for overall effect: Z = 6.87 (P	< 0.0000	1)							
Total (95% CI)			93			93	100.0%	-1.23 [-1.88, -0.57]	-
Heterogeneity: Tau ² = 0.32; Chi ² =	: 13.08, (f=3 (P = 0.0	04); I² =	77%				
Test for overall effect: Z = 3.67 (P :									-2 -1 Ó Í After Before
Test for subgroup differences: Ch			? (P = 0	.20), I ² =	37.9%				Aller Delure

Appendix 11j. UUI episodes after treatment according to the stimulation methods

	1	After		В	efore			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% Cl
12.1.1 Method 1									
Jacomo, R. H 2020	0.33	0.12		1.49	0.41	25	39.0%	-1.16 [-1.33, -0.99]	
Subtotal (95% CI)			25			25	39.0 %	-1.16 [-1.33, -0.99]	•
Heterogeneity: Not ap	plicable	!							
Test for overall effect:	Z = 13.5	i8 (P <	0.0000	01)					
12.1.2 Method 2									
Manriquez, V. 2016	0	5.2	34	5	4	34	10.8%	-5.00 [-7.21, -2.79]	
Subtotal (95% CI)			34			34	10.8 %	-5.00 [-7.21, -2.79]	
Heterogeneity: Not ap	plicable	!							
Test for overall effect:	Z = 4.44	(P < (0.0000	1)					
12.1.3 Method 5									
Alve, A. T 2020	0.26	0.54	39	1.49	2.06	39	31.8%	-1.23 [-1.90, -0.56]	
Bykoviene 2018	3.17	2.87	39	5.24	3.64	39	18.4%		
Subtotal (95% CI)			78			78	50.2 %	-1.39 [-2.04, -0.74]	•
Heterogeneity: Tau² =	0.02; C	hi² = 1	.06, df:	= 1 (P =	0.30);	I ² = 5%			
Test for overall effect:	Z = 4.21	(P < (0.0001)						
Total (95% CI)			137			137	100.0%	-1.76 [-2.62, -0.91]	•
Heterogeneity: Tau² =	0.48; C	hi² = 1	3.01, d	f = 3 (P :	= 0.00	5); I² = (77%		
Test for overall effect:	Z = 4.07	'(P < (0.0001)						After Before
Test for subgroup diff	erences	: Chi²	= 11.98	6, df = 2	(P = 0	.003), P	²= 83.3%		, and Boloro

Appendix 11k. UUI episodes after treatment according to the surface method and considering the stimulation method

	1	\fter		В	efore			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% Cl
12.2.1 Movement three	eshold								
Alve, A. T 2020	0.26	0.54	39	1.49	2.06	39	31.8%	-1.23 [-1.90, -0.56]	+
Jacomo, R. H 2020	0.33	0.12	25	1.49	0.41	25	39.0%	-1.16 [-1.33, -0.99]	•
Manriquez, V. 2016 Subtotal (95% CI)	0	5.2	34 98	5	4	34 98	10.8% 81.6 %		↓
Heterogeneity: Tau ² =	0.54; CI	hi² = 1	1.60, di	f = 2 (P =	= 0.00	3); 2 = 3	83%		
Test for overall effect:	Z = 3.42	(P = 0).0006)						
12.2.2 Pain threshold	I								
Bykoviene 2018 Subtotal (95% CI)	3.17	2.87	39 39	5.24	3.64	39 39	18.4% 18.4 %	-2.07 [-3.52, -0.62] - 2.07 [-3.52, -0.62]	•
Heterogeneity: Not ap	plicable								
Test for overall effect:	•).005)						
Total (95% CI)			137			137	100.0 %	-1.76 [-2.62, -0.91]	•
Heterogeneity: Tau ² =	0.48; Cl	hi² = 1	3.01, di	f = 3 (P =	= 0.00	5); I² = 1	77%		+ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$
Test for overall effect:				•					
Test for subgroup diff		`			- n 7	11 18-	n 04.		After Before

Appendix 111. UUI episodes after treatment according to the surface method and considering the stimulation threshold

Appendix 12. Critical appraisal results

JBI	CRITICAL APPRAISA	AL C	CHE	CKL	IST	FOR	RA	NDO	MIZ	ED	CON	[TRO]	LLE	D			
No	Author_year_Ref	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q 10	Q 11	Q 12	Q 13	Gr ad e	Qu alit y	Overa apprai al
1.	Abulseoud_2018(10)	Y	Y	Y	Y	Ν	Y	Y	Y	Y	Y	Y	Y	Y	12	*	Include
2	Ahmed_2020(11)	Y	U	Y	Y	N	Ν	Y	Y	Y	Y	Y	Y	Y	10	*	Include
3	OkanALKI_2021 (12)	Y	U	Y	U	U	U	Y	Y	Y	Y	Y	Y	Y	9	**	Include
4	Alve_2020 (13)	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	11	*	Include
5	Bacchi_2021(14)	Y	Y	Y	U	U	Y	Y	Y	Y	Y	Y	Y	Y	11	*	Include
6	Boudaoud_2015(15)	Y	Y	Y	Y	Y	Ν	Y	Y	Y	Y	Y	Y	Y	12	*	Include
7	Bykoviene_2018(16)	Y	Y	Y	N	Ν	Y	Y	Y	Y	Y	Y	Y	Y	11	*	Include
8	Ebid_2009(17)	Y	N	Y	Y	N	Ν	Y	Y	Y	Y	Y	Y	Y	10	**	Include
9	Elshora_2020 (18)	Y	N	Y	N	N	N	Y	Y	Y	Y	Y	Y	Ν	8	**	Include
10	Finazzi-Agro_2010 (19)	Y	Y	Y	Y	Y	N	Y	Y	Ν	Y	Y	Y	Y	11	*	Include
11	Girtner_2021(20)	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	11	*	Include
12	GungorUgurlucan_2013(21)	Y	N	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	9	**	Include
13	Jacomo_2020 (22)	Y	Y	Y	Ν	N	Y	Y	Ν	Y	Y	Y	Y	Y	10	*	Include
14	Karademir_2005(23)	Y	N	Y	N	N	Ν	Y	Y	Y	Y	Y	Y	Ν	8	**	Include
15	Kizilyel_2015(24)	U	N	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	8	**	Include
16	Mallmann_2020(25)	Y	U	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	9	**	Include
17	Manriquez_2016 (26)	Y	U	Y	N	N	N	Y	Y	Ν	Y	Y	Y	Y	8	**	Include
18	Martin-Gracia_2018(27)	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	11	*	Include
19	Peters_2012(28)	Y	N	Y	Y	Y	Ν	Y	Y	Y	Y	Y	Y	Y	11	*	Include
20	Peters_2009(29)	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	12	*	Include
21	Preyer_2015 (30)	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	10	**	Include
22	Ramirez-Garcia_2019(31)	Y	U	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	9	**	Include
23	Ramirez-Garcia_2021(32)	Y	N	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	9	**	Include
24	Sancaktar_2010(33)	Y	N	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	9	**	Include
25	Sherif_2017(34)	Y	U	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	9	**	Include
26	Souto_2014 (35)	Y	N	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	9	**	Include
27	Svihra_2002 (36)	Y	N	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	9	**	Include
28	Vecchioli-Scaldazza_2018(37)	Y	N	Y	U	U	Y	Y	Y	Y	Y	Y	Y	Y	10	**	Include
29	Zhang_2021(38)	Y	U	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	11	*	Include
30	Ayala-Quispe_2020(39)	Y	U	Y	Ν	N	Ν	Y	Y	Y	Y	Y	Y	Y	9	**	Include
31	Lashin_2021(40)	Y	U	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	10	**	Include
32	Pierre_2021 (41)	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	11	*	Include

33	Sonmez_2022(42)	Y	U	Y	Ν	N	Y	Y	Y	Y	Y	Y	Y	Y	10	**	Includ
34	Welk_2020(43)	U	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	10	**	Includ
35	Zonić-Imamović_2021(44)	Y	N	Y	N	N	Ν	Y	Y	Y	Y	Y	Y	Y	9	**	Includ
36	Geirsson_1993(45)	Y	Y	Y	U	U	U	Y	N	N	Y	Y	Ν	N	6	***	Includ

Y = Yes, N = No, U = Unclear *High: eleven to thirteen positive criteria **Moderate: eight to ten positive criteria ***Low: <seven positive criteria

JBI	CRITICAL APPRAIS	SAL C	HE	CKL	IST	FO	R QI	UAS	I-EX	KPE	RIME	NTAL S	TUDIES
No	Author_year_Ref	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Grade	Quality	Overall appraisal
37	Vanbalken, M_2001(46)	Y	Y	Y	N	Y	Y	Y	Y	Y	8	*	Include
38	AMARENCO_2003(47)	Y	Ν	Y	N	Y	U	Y	Y	Y	6	**	Include
39	Barroso_2013(48)	Y	Y	Y	U	Y	Y	Y	Y	Y	8	*	Include
40	Capitanucci_2009(49)	Y	Ν	Y	N	Y	Y	Y	Y	Ν	6	**	Include
41	De Gennaro_2004 (50)	N	N	Y	N	Y	Y	Y	Y	Y	6	**	Include
42	Rio-Gonzalez_2017 (51)	Y	Y	Y	N	Y	Y	Y	Y	Y	8	*	Include
43	Fischer-Sgrott_2009(52)	Y	Y	Y	N	Y	Y	Y	Y	Y	8	*	Include
44	Govier_2001(53)	Y	Y	Y	N	Y	Y	Y	Y	Y	8	*	Include
45	Hegazy_2014(54)	Y	Y	Y	Y	U	Y	Y	Y	Y	8	*	Include
46	Klingler_2000(55)	Y	Y	Y	Y	N	Y	Y	Y	Y	8	*	Include
47	MacDiarmid_2010(56)	Y	Y	Y	Ν	Y	Y	Y	Y	Y	8	*	Include
48	Macías-Vera_2016(57)	Y	Ν	Y	Y	Y	Y	Y	Y	Y	8	*	Include
49	Mathieu_2017(58)	Y	N	N	Y	Y	Y	Y	Y	Y	7	**	Include
50	Onal_2012(59)	Y	Y	Y	Ν	Y	Y	Y	Y	Y	8	*	Include
51	Pytel_2018(60)	Ν	Ν	Y	N	Y	Ν	Y	Y	Y	5	**	Include
52	van Balken_2006(61)	Y	N	Y	N	Y	Y	Y	Y	Y	7	**	Include
53	van Balken, et al _2006(62)	Y	N	Y	N	Y	Y	Y	Y	Y	7	**	Include
54	van der Pal_2006(63)	Y	Y	Y	N	Y	Y	Y	Y	Y	8	*	Include
55	Vandoninck_2003(64)	Y	Y	Y	N	Y	Y	Y	Y	Y	8	*	Include
56	Yoong_2013(65)	Y	Y	Y	N	Y	Y	Y	Y	Y	8	*	Include
57	Baykal, K_2005(66)	Y	Y	Y	N	Y	Y	Y	Y	Y	8	*	Include
58	Kabay, S_2021(67)	Y	Y	Y	N	Y	Y	Y	Y	Y	8	*	Include

59	Ragab, M_2015(68)	Y	Y	Y	N	Y	Y	Y	Y	Y	8	*	Include
60	Van balken, M.R_2003(46)	Y	Y	Y	N	Y	Y	Y	Y	Y	8	*	Include
61	Zhao, J_2008(69)	Y	Y	Y	N	Y	Y	Y	Y	Y	8	*	Include
62	Zhao, J_2004(70)	Y	Y	Y	N	Y	Y	Y	Y	Y	8	*	Include

*High: eight to nine positive criteria **Moderate: five to seven positive criteria ***Low: <five positive criteria

JBI CRITICAL APPRAISAL CHECKLIST FOR COHORT STUDIES IN OVERACTIVE BLADDER SYNDROME															
No	Author_year_ Ref	Q 1	Q 2	Q 3	Q 4	Q 5	Q 6	Q 7	Q 8	Q 9	Q 10	Q 11	Grade	Quality	Overall appraisal
63	Marchal_2011 (71)	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	9	*	Include

Y = Yes, N = No, U = Unclear *High: nine to eleven positive criteria **Moderate: six to eight positive criteria ***Low: < six positive criter