Traitements médico-chirurgicaux des douleurs pelvipérinéales chroniques
Troisième palier

Th Riant
L’arsenal

- Établir de nouveaux objectifs
- Réévaluer
- Continuer le soutien
- PRESERVER LES SOIGNANTS
- Equipe TRANSDISCIPLINAIRE

- Stimulation radiculaire, médullaire, et corticale
- Stimulation magnétique transcrânienne
- Reprendre les paliers 1 et 2
Spinal cord stimulation modulates intraspinal colorectal visceroreceptive transmission in rats
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Abstract
Previous studies have shown that spinal cord stimulation (SCS) of upper lumbar segments decreases visceromotor responses to mechanical stimuli in a sensitized rat colon and reduces symptoms of irritable bowel syndrome in patients. SCS applied to the upper cervical spinal dorsal column reduces pain of chronic refractory angina. Further, chemical stimulation of C1-C2 propriospinal neurons in rats modulates the responses of lumbosacral spinal neurons to colorectal distension. The present study was designed to compare the effects of upper cervical and lumbar SCS on activity of lumbosacral neurons receiving noxious colorectal input. Extracellular potentials of L6-S2 spinal neurons were recorded in pentobarbital anesthetized, paralyzed and ventilated male rats. SCS (50 Hz, 0.2 ms) at low intensity (90% of motor threshold) was applied to the dorsal column of upper cervical (C1-C2) or upper lumbar (L2-L3) ipsilateral spinal segments. Colorectal distension (CRD, 20, 40, 60 mmHg, 20 s) was produced by air inflation of a latex balloon. Results showed that SCS applied to L2-L3 and C1-C2 segments significantly reduced the excitatory responses to noxious CRD from 417.6±68.0 imp to 296.3±53.6 imp (P<0.05, n=24) and from 336.2±64.5 imp to 225.0±73.3 imp (P<0.05, n= 18), respectively. Effects of L2-L3 and C1-C2 SCS lasted 10.2±1.9 min and 8.0±0.9 min after offset of CRD. Effects of SCS were observed on
spinal neurons with either high or low threshold excitatory responses to CRD. However, L2-L3 or C1-C2 SCS did not significantly affect inhibitory neuronal responses to CRD. C1-C2 SCS-induced effects were abolished by cutting the C7-C8 dorsal column but not by spinal transection at cervicomedullary junction. These data demonstrated that upper cervical or lumbar SCS modulated responses of lumbosacral spinal neurons to noxious mechanical stimulation of the colon, thereby, proved two loci for a potential therapeutic effect of SCS in patients with irritable bowel syndrome and other colonic disorders.


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PURPOSE: Neuromodulation therapies have been used with success in patients with fecal incontinence. Intermittent percutaneous tibial nerve stimulation is a new, minimally invasive treatment option for these patients. This study was designed to evaluate the results of intermittent percutaneous tibial nerve stimulation in patients with fecal incontinence. METHODS: Sixteen patients (11 females; mean age, 59 +/- 7.9 years) with severe fecal incontinence were treated with percutaneous tibial nerve stimulation. All patients completed a defecation diary, the Wexner Fecal Continence Scale, a fecal incontinence quality-of-life questionnaire, and a visual analog scale before treatment and during each phase of the study. Endoluminal ultrasound and anorectal physiologic studies were also performed in each patient. RESULTS: Continence was improved in 10 of 16 patients after the first phase. Six patients did not continue to the second phase of treatment because of a lack of initial response. During the second phase, 7 of 16 continued to show improvement. After a six-month period without any treatment, 5 of 16 continued to have good continence. Overall, percutaneous tibial nerve stimulation significantly improved fecal continence. The Wexner score improved from a mean of 13.2 +/- 4.1 at baseline to 9 +/- 5.2 at the end of the first phase (P < 0.0005), to 8 +/- 5.7 at the end of the second phase (P = 0.001), and to 9.1 +/- 5 after 6 months without treatment (P = 0.001). Significant improvement was observed in three main domains of the fecal incontinence quality-of-life scale: coping/behavior, depression, and embarrassment. Scores on the visual analog scale improved from a mean of 4.6 +/- 1.5 at baseline to 7 +/- 2.5 at the end of the first phase (P = 0.002) and to 7.2 +/- 2.5 after 6 months without treatment (P = 0.001). CONCLUSION: Percutaneous tibial nerve stimulation is a minimally invasive and effective treatment option for patients with fecal incontinence.

Neuromodulatory approaches to chronic pelvic pain and coccygodynia.
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Intractable chronic pelvic pain (CPP) despite a multidisciplinary approach is challenging to treat. Every structure in the abdomen and/or pelvis could have a role in the etiology of CPP. Management of chronic pelvic pain may require a combination of interventions, including pharmacological, physical and psychological therapy. Interventions suggested to date include nerve blocks (ilioinguinal, iliohypogastric, genitofemoral, hypogastric, presacral) and trigger point injections, radiofrequency treatments, spinal cord stimulation (SCS), sacral root stimulation, sacral magnetic stimulation and sacral stimulation via tibial nerve. Peripheral nerve stimulation (PNS) has been particularly successful in the treatment of mononeuropathies. Indications for targeted stimulation include localised pain in non dermatomal distribution. Herein, the epicenter of the site of pain (target) is stimulated either transcutaneously or percutaneously or via permanent neuromodulating implant. Targeted and PNS probably are underused treatment modalities given the simplicity of the technique. The introduction of a stimulating electrode directly to the center of peripherally affected, painful areas, thereby bypassing the spinal cord and peripheral nerves is a novel simple procedure with effectiveness in the control of intractable neuropathic pain. Development of newer devices and miniaturization of electrodes will play a role in refinement and further simplification of subcutaneous neuromodulation.
evaluated for scores on a visual analog pain scale (0-10) and the Short-Form 36 (SF-36) health status questionnaire. Manometric measurements recorded at last follow-up were compared with preimplantation values. RESULTS: In one patient, the permanent device was removed because of technical failure. After a mean follow-up of 15 (range, 3-80) months, visual analog pain scores had significantly improved (from 8.2 +/- 1.7 to 2.2 +/- 1.3, P < 0.001). SF-36 physical component scores increased from 26.27 +/- 5.65 to 38.95 +/- 9.08, P < 0.02). Scores on the mental component showed improvement, although not significant. Postimplantation changes in manometric functional data were not significant, but sensitivity thresholds showed a considerable decrease. CONCLUSIONS: Long-term follow-up data showing improvements in scores on the visual analog pain scale and quality of life questionnaire indicate that, before adopting more aggressive surgical procedures, SNS should be considered for patients with chronic idiopathic anal pain in whom pharmacologic and biofeedback treatments have failed to produce effective results.


   Spinal cord stimulation is an effective treatment for the chronic intractable visceral pelvic pain.

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   OBJECTIVE: Recent studies have demonstrated significant involvement of dorsal column pathways in transmission of visceral pelvic pain. Spinal cord stimulation (SCS) suppresses visceral response to colon distension in an animal model and therefore may be an effective therapy for chronic pelvic pain of visceral origin. We are reporting on the value of neurostimulation for chronic visceral pelvic pain in six female patients with the diagnosis of long-standing pelvic pain (history of endometriosis, multiple surgical explorations, and dyspareunia). DESIGN AND SETTINGS: Case-series report. All patients received repeated hypogastric blocks (in an average of 5.3 blocks) with a significant pain relief for a period ranging from 1 to 6 weeks. Three received neurolytic hypogastric block with the pain relief of 3, 8, and 12 months, respectively. Following psychological evaluation and clearance by our Multidisciplinary Committee on Implantable Devices, they all underwent SCS trial for 7-14 days. All patients received SCS systems with dual leads (Compact or Quad leads, Medtronic Inc., Minneapolis, MN, USA). RESULTS: The average follow-up was 30.6 months. Median visual analog scale pain score decreased from 8 to 3. All patients had more than 50% of the pain relief. Pain Disability Index changed from an average of 57.7 +/- 12 to 19.5 +/- 7. Opiate use decreased from an average 22.5 mg to 6.6 mg of morphine sulfate milligram equivalents per day. CONCLUSION: It appears that SCS may have a
significant therapeutic potential for treatment of visceral pelvic pain.

Neuromodulation for functional bowel disorders.
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In patients with functional bowel disorders not responding to maximal medical treatment, bowel lavage or biofeedback therapy, can nowadays be treated by sacral nerve neuromodulation (SNM). SNM therapy has evolved as a treatment for faecal incontinence and constipation. The exact working mechanism remains unknown. It is known that SNM therapy causes direct stimulation of the anal sphincter and causes changes in rectal sensation and several central nervous system areas. The advantage of SNM therapy is the ability to do a minimally invasive temporary screening phase to assess permanent stimulation outcome. Ideal candidates for SNM therapy are not known. Several studies have described positive and negative predictive factors, but the temporary screening remains the instrument of choice. Clinical results are good and as the technique is developing, fewer complications occur. New indications for SNM include constipation and anorectal or pelvic pain
Stimulation radiculaire S2, S3

- Incontinence anale
- Vessie hyperactive
- Douleur ?
Stimulation du cône médullaire
Stimulation du cône médullaire

- 70% des patients implantés
  - > 50% de diminution douleur maximale
  - * 3 temps de position assise

- Résultats encourageants mais série courte
- PHRC en cours
Autres stimulations

- Stimulation magnétique transcranienne
- Stimulation corticale
Equipe transdisciplinaire

• Plus importante dans la réalité que pour passer les « accréditations »
• Présérer les soignants
• Choisir les membres de l’équipe
Conclusions/ Doggy Bag

- Pas de traitement miracle
- Traitement plurimodal
- Attention aux morphiniques
- Antidépresseurs et antiépileptiques utiles en tant qu’antalgiques
- Infiltration surtout diagnostique
- Corticoides inutiles dans ces infiltrations
- Chirurgie seul traitement validé pour les névralgies périnéales
- Stimulation médullaire en cas d’échec

- Bravo de vous être inscrit à ce DIU
- Bienvenue au club
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