

NERVE ENTRAPMENT IN THE UROLOGICAL POPULATION. IF YOU DON'T KNOW, YOU WON'T SEE

Hypothesis / aims of study

Many patients seek help for chronic abdominal/pelvic pain. Some patients will be analyzed by gastro-enterologists, some by gynecologists, but there is also a group of patients that will be primarily seen by an urologist because of concomitant bladder symptoms or pain in the bladder region or flank.

The existence of a nerve entrapment syndrome is hardly considered in the differential diagnosis of chronic abdominal pain, especially when concomitant bladder symptoms occur. A clinically relevant portion of patients previously diagnosed with functional abdominal pain syndrome in a primary care environment suffers from an abdominal wall pain syndrome such as (Anterior) Cutaneous Nerve Entrapment Syndrome ((A)CNES) [1]. Diagnosis can be made by careful examination of the abdominal wall and by injecting lidocaine into the point of maximal abdominal wall pain just beneath the anterior fascia of the rectus abdominis muscle or at the trigger point in the flank. Pain reduction following local infiltration in these patients is based on an anesthetic mechanism and not on a placebo or a mechanical (volume) effect [2].

Study design, materials and methods

In the period between 01-01-2014 and 01-04-2015 we retrospectively identified 17 patients with symptoms that might be attributed to nerve entrapment (14 women and 3 men (age 26-73, mean age 57 years)): 13 patients with ACNES and 4 with a posterior entrapment. All these patients were treated with a local infiltration with lidocaine 2%. It was observed whether there was a (temporary) relief of the pain.

Results

Of these patients 15 (88%) had (temporary) pain relief. 2 Patients did not benefit.

Of the 15 patients, 4 experienced concomitant bladder complaints: a feeling of a UTI or frequency, pressure or discomfort. After injection with lidocaine these complaints were diminished or completely disappeared in all four patients.

In 6 patients the pain was related to previous (range of 0.5 - 14 years) surgery in the lower abdomen (in 4 cases an abdominal uterus extirpation with 3 pfannenstiel incision and 1 median incision, 1 patient has had an abdominoplasty and 1 patient had had an Bricker urine deviation without cystectomy). All patients experienced an improvement in the intensity of their pain after the injection. One of the women had deep vaginal pain with severe dyspareunia and burning sensation with micturition. After lidocaine injection she was completely free of any complaints for about 6 hours.

4 Patients experienced pain in the flank. No abnormalities were found in these patients in a radiology and nuclear examination. Pain symptoms were anamnestic and did, when subjected to a physical examination, not correspondent with a Herpes zoster infection.

One patient, 26 years old, suffered from chronic flank pain for 6 years. She had a pyelumplasty twice. She used transcutaneous morphine for her pain. After a lidocaine injection in her flank she was free of any pain for 1 hour. Another patient, 38 years old, experienced severe flank pain on her right side if she was in a laying position after having given birth. Imaging suggested a possible mobile kidney. One lidocaine injection provided substantial pain relief.

A (mentally retarded) 66 year old male had scrotalgia for a long time already. Physical examination concluded that this scrotalgia was based on a painful epididymis on both sides. Treatment with antibiotics had no effect on the pain. Paramedian on the abdomen wall was a trigger point. After an injection the pain decreased and this effect remained.

Interpretation of results

Patients seem to have benefit from a simple anesthetic injection in a trigger point when they experience chronic abdominal- or flank pain. Already from literature we know that a regimen of consecutive local trigger point injections is effective in one-thirds of patients with CNES. Surgical neurectomy is effective in about two-thirds of the injection regimen refractory patients. Eighty percent of the entire CNES population reports total or substantial pain relief on the long term [3].

Concluding message

Nerve entrapment is a diagnosis that must be considered in patients with (lower) abdominal or pelvic pain and even in patients with chronic flank pain. Entrapped branches of intercostal nerves may contribute to the clinical picture and pain reduction following (diagnostic) local infiltration with lidocaine can provide pain reduction after which further treatment may be offered. In this small group there were also patients that experienced strong relief of their bladder symptoms. This signal may be a start of an altered treatment in a subgroup of patients that currently fall under the diagnosis BPS/IC, CPPS or chronic idiopathic flank pain.

References

1. Van Assen T et al. Chronic abdominal wall pain misdiagnosed as functional abdominal pain. *J Am Board Fam Med.* 2013 Nov-Dec;26(6):738-44
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3. Boelens OB et al. Management of anterior cutaneous nerve entrapment syndrome in a cohort of 139 patients. Ann Surg. 2011 Dec;254(6):1054-8

Disclosures

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Disclosure and funding: NONE **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** To the retrospective nature of this study, no burden neither risks are associated with participation. **Helsinki not Req'd:** We did no human experimentation **Informed Consent:** No