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# COMPARATIVE STUDY OF PAIN SEVERITY AMONG WOMEN WITH CHRONIC PELVIC PAIN DUE TO SUPERFICIAL ENDOMETRIOSIS AND DUE TO INTRAPELVIC NERVE ENTRAPMENT.

Hypothesis / aims of study
To evaluate and compare the complaint of pain among women with intrapelvic nerve entrapment with those with chronic pelvic pain diagnosed with superficial endometriosis.

Study design, materials and methods
This scross-sectional study evaluated 70 women aged between 18 and 50 years, complaining of pelvic pain for at least 6 months. Those women were evaluated and divided into two groups.
The study group consisted of 28 women with diagnosis of chronic pain secondary to intrapelvic nerve entrapments.
The control group consisted of 42 women with diagnosis of superficial endometriosis without nervous impairment.
All patients were assessed using visual analog scale score (VAS score) to graduate pain on a form 0 to 10, where zero is no pain and 10 the worst pain ever experienced by the patient.
Student's t test was used to compare the results of the VAS score and age.

Results
The groups are not homogeneous regarding age ($p < 0.01$), the study group consisted of women with 39.3 (± 9.91) years and the control group 31.7 (± 5.11).
In relation to pain, we noticed a significant difference in pain severity as displayed on the table below.

Table 1. Pain intensity between groups

| Group | VAS score (median) | avg | std dev |
|---|---|---|---|
| Study | 10 | 8.93 | 1.85 |
| Controle | 8 | 8.17 | 1.92 |

*$p = 0.02$

Interpretation of results
The diagnosis of both endometriosis and intrapelvic nerve entrapment is based on specialized clinical evaluation and subsidiary exams, which are not readily available in every center, This leads to a delay in diagnosis. Clinically, intrapelvic nerve entrapments can be differentiated from endometriosis by the complaints of bladder and bowel dysfunction, intensity and localization of pain, and sensory abnormalities on the entrapped nerves dermatomes. Pelvic pain is also a common symptom in these patients.
Differently from other nerve roots that emerge on the posterior aspect and running laterally to the vertebrae, the sacral roots leave the spinal canal through the anterior aspect of the sacral foramina; therefore, these are, from their very emergence, intrapelvic structures. Given the small expertise of the specialties that traditionally deal with peripheral neuropathies on abdominal approaches, proper diagnosis and treatment of intrapelvic entrapments may take longer, thus exposing the individual to a longer period of pain.[1]
Despite the fact that pain is a personal experience and often little related to the size of the lesion, we observed in this study that the pain complaint is more intense in women with intrapelvic nerve entrapment, probably due to the hyperalgesia caused by noxious stimuli directly into the nerve [3] as well as the delay in diagnosis and treatment[1,2]. Late diagnosis can also justify the difference in age observed between the study and control groups.

Concluding message
The painful symptoms are more severe in women with intrapelvic nerve entrapment than in those with superficial endometriosis without nervous impairment.

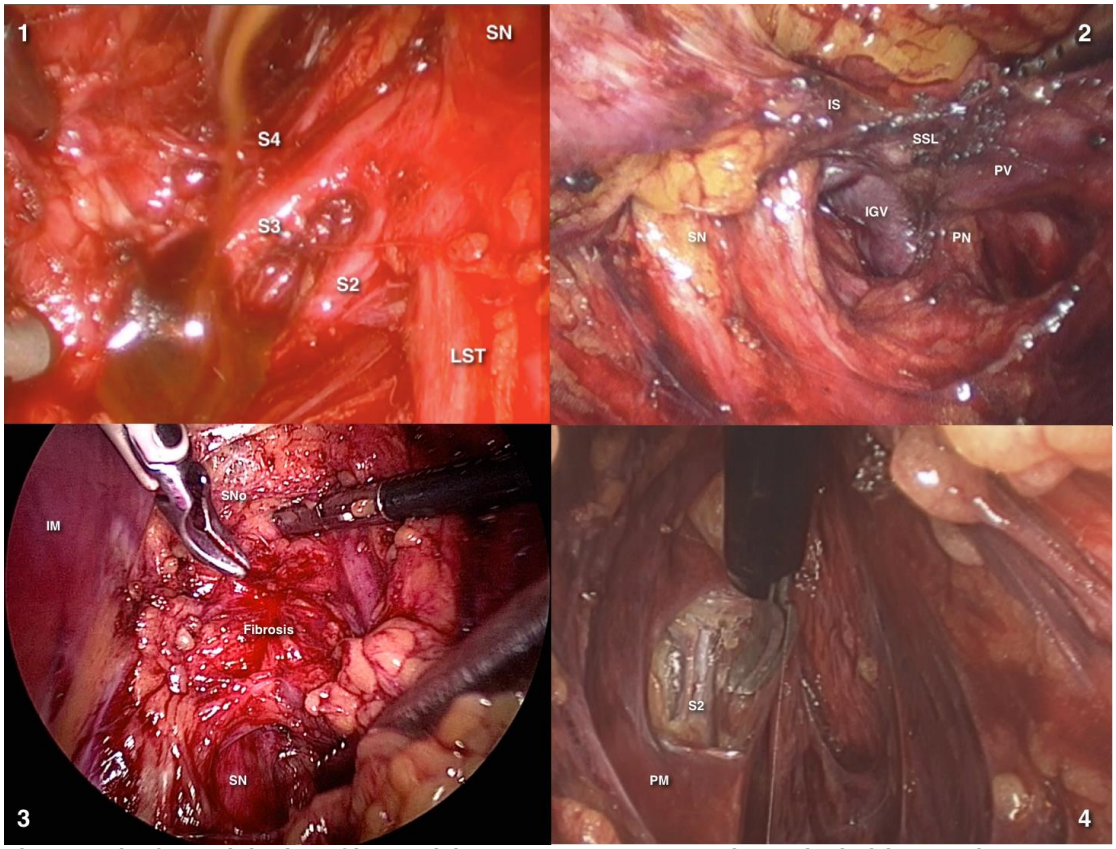


**Figure – The four etiologies of intrapelvic nerve entrapment: endometriosis (1), vascular entrapment (2), fibrosis (3) and pyriformis muscle anatomical variations(4).** SN – Sciatic Nerve; SNo – Sciatic Notch; LST – Lumbosacral Trunk; IS – Ischial Spine; SSL – Sacrospinous Ligament; PV – Pudendal Vein; PN – Pudendal Nerve; IGV – Inferior Gluteal Vein; IM – Iliac Muscle.

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Disclosures

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