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VASCULAR ENTRAPMENT OF THE SCIATIC PLEXUS CAUSING CATAMENIAL SCIATICA AND URINARY SYMPTOMS.

Introduction

Pelvic congestion syndrome is a well-known cause of cyclic pelvic pain. Patients commonly present with pelvic pain without evidence of inflammatory disease. The pain is worse during the premenstrual period and pregnancy, and is exacerbated by fatigue and standing[1].

However, what is much less known is that dilated or malformed branches of the internal or external iliac vessels can entrap the nerves of the sacral plexus against the pelvic sidewalls, producing symptoms that are not usual in the gynecological practice, such as sciatica, or refractory urinary and anorectal dysfunction[2].

The objective of this video is to explain and describe the symptoms suggestive of vascular entrapment of the sacral plexus, as well as the technique for the laparoscopic decompression of those nerves.

Design

To illustrate those concepts, we report two clinical cases. The first is that of a 36 year-old woman with complaint of burning pain on left S2 dermatome which worsened during the perimenstrual period. She had already been submitted to one laparoscopy for fulguration of endometriotic foci and medical treatment with desogestrel, being both unsuccessful.

At examination, hyperesthesia on the left sciatic nerve dermatome was observed and vaginal examination revealed hypertonic pelvic floor muscles and pain on uterine mobilization. MRI revealed dilated vessels over the sciatic nerve region. Laparoscopy was indicated under the hypothesis of vascular entrapment of the sciatic nerve.

No endometriotic nodules were found in the pelvis. The exploration of the sciatic plexus revealed a large, dilated vein right under the obturator nerve and entrapping the sciatic nerve and the lumbosacral trunk. The vein was probably a malformation of the superior gluteal vein, as it was arising from the sciatic notch and making multiple abnormal connections to the external and internal iliac veins. All its tributary veins were carefully coagulated and cut, slowly revealing the sacral plexus underneath it.

The second case is that of another 36 year-old woman with chief complaint of dysmenorhoea and perimenstrual buttock, rectal and vaginal pain, combined with urinary urgency and urge-incontinence. MRI pelvic ultrasound revealed a 1.5cm endometriotic nodule on the sigmoid and signs of endometriosis on the left uterosacral ligaments. Perimenstrual UDS revealed detrusor overactivity and detrusor-sphincter dyssynergia, which are compatible with the hypothesis of S3-S4 entrapment. Bowel and endometriosis resection with S3 S4 decompression was then indicated.

To access the sacral nerve roots, the presacral space was developed and the hypogastric fascia was opened, revealing dilated veins entrapping the nerve roots. As in the previous case, the whole abnormal vessel was resected, decompressing the nerve roots.

Results

On post-operative evolution, the first patient presented complete resolution of sciatica, fter a three-month period of post-decompression neuropathic pain, and significant improvement of the myofascial pain, which now responds to physical therapy and myorelaxants.

The second patient presented complete resolution of the buttock pain and four months after surgery she still complained of urinary frequency, although with no urgency or urge-incontinence episodes.

Conclusion

The symptoms suggestive of intrapelvic nerve entrapment are: perineal pain or pain irradiating to the lower limbs, in the absence of a spinal disorder; lower urinary tract symptoms in the absence of a prolapse of bladder lesion. In the presence of such symptoms, ask your radiologist for specific MRI sequences for intrapelvic portion of the sacral plexus.

And prepare your team and equipment to expose and decompress the sacral nerves.

Keep in mind that symptoms of vascular entrapment may vary with the menstrual cycle or exercise, due to pelvic congestion.

References

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Disclosures

Funding: None. **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Comitê de Ética da Universidade Federal de São Paulo **Helsinki:** Yes **Informed Consent:** Yes