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Post-Ablation Tubal Sterilization Syndrome (PATSS): A Case Report

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Abstract

INTRODUCTION:

• PATSS was first reported by Townsend et al in 1993

• Most common presentation: Unilateral or bilateral pelvic pain associated w/ vaginal spotting, often in relation to patients' menses

• Hypothesized pathophysiology: Lower uterine segment scarring from prior tubal sterilization and endometrial ablation -> retrograde menstruation against an obstructed fallopian tube -> visceral distention & pain

• Diagnosis: Laparoscopy or MRI

• Preferred treatment: Salpingectomy or hysterectomy w/ salpingectomy

DESCRIPTION:

• 34-year-old female presented to Near North Health with one year of worsening, severe pelvic pain, only slightly improved by Tylenol and OCPs

• **Surgical History:** Tubal ligation 2015, endometrial ablation 2020

• **Physical Exam:** The vulva appeared normal, without lesions or discharge. The vagina was normal in appearance with no evidence of cystocele or rectocele. There was no cervical motion tenderness or friability, and the uterus was normal in size and position.

• **Pelvic MRI:** Hyperintense/hemorrhagic fluid filling and distending the endometrial canal of the uterine fundus and body. Left fallopian tube dilated, high T1 signal, representing hematosalpinx. Findings consistent with PATSS.

• **Surgery:** Uncomplicated hysterectomy with salpingectomy. Under laparoscopic visualization, the fallopian tubes were dilated bilaterally. The left hydrosalpinx was larger than the right and appeared grossly dilated with blood.

• **Pathology:** Despite the grossly distended appearance of the left fallopian tube, the final pathology was negative for significant pathologic changes. The right fallopian tube demonstrated multiple para-tubal cysts. The uterus and cervix demonstrated superficial fibrosis and acute and chronic inflammation, consistent with prior endometrial ablation.

• Outcomes:

- Two-week post-op visit: patient reported mild spotting with no pain

- Four-week post-op visit: the patient continued to deny any pelvic pain, vaginal bleeding, or new complaints. She reported feeling well.

DISCUSSION:

• In the months following her 2020 endometrial ablation, this patient experienced pelvic pain that continuously intensified and worsened

• Based on clinical findings, MRI imaging, and intraoperative visualization of the fallopian tubes, a clear diagnosis of PATSS was made

• While histopathology of the left fallopian tube was negative for hematosalpinx or transmural inflammation, this does not eliminate PATSS as the probable diagnosis: In one recent report, pathologically confirmed PATSS has an estimated incidence of 6% while the incidence of the syndrome is likely much higher when assessed clinically

• In addition, the relief of this patient's symptoms following hysterectomy with salpingectomy further confirms PATSS

• Up to 8% of women with prior tubal ligation followed by endometrial ablation will experience significant chronic pain within 5 years due to obstruction of menstrual blood flow from scarred fallopian tubes and uterine lining

• This clinical syndrome of PATSS is supported with MRI imaging and visualization of dilated fallopian tubes during surgery

• Early identification of PATSS is crucial in order to offer surgical alleviation of patients' pain

• Proven PATSS risk factors include nulliparity, Black race, and younger age (<33 years old) at time of tubal ligation3. The patient presented here met 2/3 of these risk factors.

• Prevention of PATSS requires further investigation, as few preventative measures are known. As technology improves, additional research must focus on the influence of newer sterilization devices and procedures on the incidence of PATSS.

Conclusion:

• PATSS is an underdiagnosed cause of chronic pelvic pain in women

• This case demonstrates the importance of identifying PATSS patients to provide symptomatic relief

• Long-term follow up to confirm continued pain relief will be monitored in this patient on an ongoing basis

• This case report adds to the growing understanding and acknowledgement of PATSS as a cause of curable chronic pain in women