Original Article

HYSTEROSCOPY MARKERS AS A DIAGNOSTIC TOOL FOR TUBERCULAR ENDOMETRITIS- A CASE REPORT FROM MAHARASHTRA, INDIA

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Abstract

Tuberculosis (TB) is a public health concern for many high burden countries and especially for India which carries a fourth of global burden of TB. The diagnosis of tubercular endometritis is challenging. In our report, we present a case of a 27-year-old woman with infertility and experienced pain in abdomen. Hysteroscopy revealed a narrowed internal cervical ostium, a pale, cloudy endometrium with absence of glands, obliterated ostia, and ostial adhesions. Hysteroscopic multiple directed endometrial biopsies were taken and histopathology, TB-Polymerase Chain reaction, and Cartridge based Nucleic Acid Amplification Test (CBNAAT) confirmed tuberculosis. Our case report suggests that hysteroscopic directed biopsies are superior to blind curettage. Visualization of early hysteroscopic markers can prevent irreversible damage to the endometrium and thereby improve reproductive performance. Training clinicians in hysteroscopic markers and educating women in India can further help to diagnose and treat this type of TB at an early stage.

Keywords: Hysteroscopy, Infertility, tubercular endometritis.

INTRODUCTION

The diagnosis of tubercular endometritis is difficult and clinical suspicion and, ultrasound create diagnostic predicament. Endometrial affection is seen in 50% of the cases and usually present as infertility.(43%–74%)[1,2].

Hysteroscopy - a see and treat tool has brought a paradigm shift in diagnosis and hysteroscopic markers may have a role in an early detection of tuberculous endometritis. Training clinicians in hysteroscopic markers and educating women in India can further help to diagnose and treat this type of TB at an early stage.

Here we present a case report of a woman with endometrial tuberculosis.

CASE REPORT:

We present a case of a 27-year-old woman, nulliparous, with complaints of infertility since 3 years, hypomenorrhea since 1year, pain in lower abdomen for 3 months.

On general examination; it was observed that; the patient had a Body Mass Index (BMI) of 19.5. Ultrasound examination revealed irregular and echogenic endometrium with an endometrial thickness of 6mm, and a retort shaped cystic structure of 42□34 mm with incomplete septa in left adnexa. A diagnostic hystero-laparoscopy was performed.

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Hysteroscopy done by vaginoscopic technique showed a narrowed internal cervical ostium. The endometrial cavity was distorted (Fig1) and the ostia were obliterated (Fig2) with periosteal adhesions. The endometrium was pale, cloudy, with absence of glands. Multiple directed endometrial biopsies were taken. Laparoscopy showed scattered tubercles over peritoneum, omentum, bowel and fallopian tubes. A left sided hydrosalpinx was seen. Perihepatic adhesions and tubercles were also seen on liver. Biopsy from omentum, peritoneum was taken. Endometrial biopsy was suggestive of granulomatous endometritis, with giant cells and Langerhans cells. Laparoscopic biopsies also showed granulomatous inflammation. The CBNAAT and the TB-PCR confirmed presence of mycobacterium tuberculosis. Patient was treated with anti-tuberculous regimen that included rifampicin, ethambutol, pyrazinamide and isoniazid for initial 2 months followed by isoniazid and rifampicin for 4 months. Patient was counselled for a relook hysteroscopy after completion of treatment.

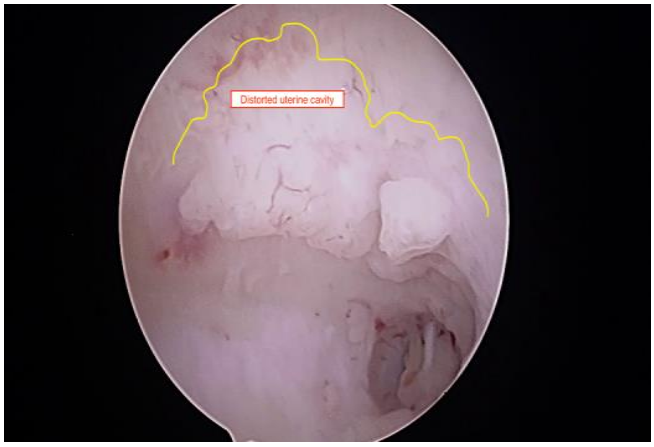

Fig 1: DISTORTED ENDOMETRIAL CAVITY

Fig 2: OBLITERATED OSTIA

DISCUSSION:

Hysteroscopy in recent times has emerged as an important tool in diagnosis of this condition. Hysteroscopic signs which could be the early markers of tubercular endometritis include presence of impregnated whitish deposits over extremely thin adhesions, radially enlarged vessels around ostia with ulcerwhitish friable areas of different sizes and shapes giving "geographic map-like" appearance of endometrium have been previously reported [3,4].In another report, a 'starry sky' aspect was seen when methylene blue was applied to endometrium. The dye is absorbed by the normal endometrium but the caseous deposits reflect white light characterizing the 'starry sky' appearance [5]. In our case, we observed a distorted cavity and obliterated ostia which are end stage affection of endometrium associated with poor reproductive performance. Our case study underscores the need for attending to early hysteroscopic markers such as flimsy adhesions, whitish deposits and ulcers. The merit of hysteroscopy is not only in a timely diagnosis but directed biopsies have an edge over blind biopsies. Using the hysteroscope enables the gynaecologist to see adhesions, tubercles, caseous deposits, evaluation of the cavity, ostia and it can be a prognostic indicator for the future pregnancies. A relook hysteroscopy after completion of anti TB therapy can help in re-evaluating the endometrial cavity, ostia and predict the reproductive performance. Our observations have implications especially in developing countries like India where women have a tendency to wait longer for seeking care for their health conditions.A previous study in India showed greater use of private sector than public sector services among young women [6]. Since private clinicians has been the first point of contact for seeking help, they can been trained in identifying these hysteroscopic markers for an early detection of tubercular endometritis.

CONCLUSION:

Tuberculous endometritis is a difficult condition to diagnose. Hysteroscopic markers can significantly raise a possibility of early detection of tuberculous endometritis. Hysteroscopy a minimal invasive technique is a "see and treat" modality which helps in taking directed biopsies, evaluate cavity, treat adhesions and also helps in assessing future reproductive performance. Also, hysteroscopy in patients presenting with infertility due to tubercular endometritis is beneficial over blind endometrial biopsy as it improves the accuracy, provides homogenous tissue, and prevents artifacts such as blood in tissue.

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