

## Utero-Cutaneous Fistula – A Rare Case Report.

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### ABSTRACT

An Uterocutaneous fistula is rare clinical entity, association is seen with postoperative injuries and chronic infections. Tubercular origin should be ruled out due to its wide spectrum of presentation specially in developing nations. Multiple diagnostic modalities are available these days for diagnosis. Surgery is the definitive treatment. We are here presenting a rare case report of utero-cutaneous fistula associated with tuberculosis.

**Keywords:** Uterocutaneous fistula, tuberculosis, Hysterectomy.

### INTRODUCTION

A fistula is an abnormal communication between two epithelial surfaces, they are usually lined by granulation tissue but chronic ones can get epithelialized.<sup>[1]</sup> Most uterine fistulae are between the uterine and the bladder or bowel (utero-vesical or utero-colonic) due to postoperative injuries or infectious conditions.<sup>[2]</sup> Utero-cutaneous fistula is mostly seen after post-partum or postoperative complications.<sup>[3]</sup> Although utero-vesical, utero-colonic fistulae are not uncommon, Utero-cutaneous fistula is a rare clinical entity with less than 15 cases reported worldwide in the last 20 years.<sup>[4]</sup> Fistula between the genital tract, bowel and skin results more commonly due to underlying co morbidities like tuberculosis, Crohn's disease, endometriosis to inadvertent retention of swabs (gossipyboma). Here we report, a case of utero-cutaneous fistula developed secondary to Tuberculosis.

### CASE REPORT

Here we are reporting the case of 32 years old female who reported in OPD with complaints of pain and cyclical bleeding from fistulous tract on left side of lower abdomen since age of 15 years, bleeding lasted for 5 days and recurred after 30 days, she also gave history of pus discharge from the fistulous

opening since 1 month. Patient never attained menarche; she was married for two years and was nulligravida. No past history of any surgery done or any chronic illness or any chronic drug intake.

Her vitals were stable and her physical examination was normal. On per abdomen examination: Puckering of skin at left lower abdomen with opening of fistula [Figure 1]. On per speculum examination: Speculum could not be introduced as there was a blind pouch of 2cm. On per vaginal examination revealed blind pouch of 2cm.



**Figure 1: Fistulous opening on the abdomen.**

Her Haemoglobin was 12gm% and total Leucocyte count was 7670 cmm. Pus culture sensitivity from fistulous tract was positive for AFB. Ultrasound was obtained and showed multi lobulated mass 21 x 11x 7.3mm lying posterior to uterus and communicating externally to sinus. MRI revealed utero-cutaneous fistula with cyst in left adnexa of size 10x10 cm. MRI revealed utero-cutaneous fistula with collection posterior to uterus in pelvis Tubercular Pathology. Sinogram revealed fistulous tract extending from left iliac fossa to uterine cavity. EUA proceed diagnostic laparoscopy was done which showed multiple dense

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adhesion of gut and omentum with anterior abdominal wall. Uterus was visualised with left ovarian cyst of around 10x10 cm size. Patient was put on antitubercular treatment (ATT) for six months and reviewed after six months.

The patient reported back after nine months with similar complaints. After baseline Investigations exploratory laparotomy was done. Intra-operatively, showed adhesion of omentum with anterior wall of uterus and to bladder. Left side of uterus was adherent to the lateral pelvic wall. Gut and appendix was adherent to fundus of uterus. Uterus was grossly normal in shape size outline with evidence of ovarian cyst 10x10 cm size on left side

There was evidence of fistula with 1 opening on left abdominal wall communicating through left fallopian tube to uterine cavity [Figure 2]. Right sided fallopian tube ovary was grossly normal. Exploratory laparotomy proceed adhesiolysis proceed appendectomy proceed fistulectomy proceed total abdominal hysterectomy with left salpingo-ovariotomy.



**Figure 2:** Fistulous tract with one opening on left abdominal wall communicating through left fallopian tube to uterine cavity. Right sided fallopian tube ovary was grossly normal.



**Figure 3:** Cut section of Uterus showing fistulous tract communicating through left fallopian tube to uterine cavity.

Cut section of Uterus was showing the fistulous tract communicating through left fallopian tube to uterine cavity [Figure 3]. There was an endometrial

polyp 1x1 cm inside the uterine cavity and the cervical canal was fibrous tube distally. Cut section of left ovarian cyst revealed straw colored fluid.

## DISCUSSION

Fistulae involving uterus are usually uterovesical or uterocolonic. An uterovesical with impaction of a loop of bowel into the tear, inflammatory processes such as spontaneous rupture of a periappendiceal or diverticulitis abscess simultaneously into the bowel and uterus, uterine or sigmoid carcinoma, ulceration and necrosis resulting in colouterine fistula, radiation therapy and obstetrics trauma during curettage with perforation of the uterine wall and bowel On the other hand, a very rare seen entity, uterocutaneous fistula usually results from post-partum or postoperative complications. Other causes of this condition include migration of intrauterine contraceptive devices.<sup>[5]</sup>

Possible mechanisms described previously in the literature involving uterus are multiple previous abdominal operations, long-term stay of drains, and incomplete closure of uterine incision during cesarean section, inflammation and wound dehiscence. Fistula formation secondary to endometriosis and tuberculosis were also described. Most fistulae originate from trauma or some other type of inflammatory processes that disrupt the continuity of tissues involved.<sup>[6,7]</sup> Local reactivation of tubercular infection may be precipitated by trauma or surgery or any factor or insult that alters local tissue response; like injury, local vascular derangements, foreign body reactions and chronic inflammation as in our case.<sup>[8]</sup>

Some other risk factors that can contribute to fistula formation are abdominal pregnancy leading to perforation of the anterior wall of uterus, Gynecological injuries and Genital tuberculosis,<sup>[9]</sup> although very rarely encountered, utero-cutaneous fistula should be considered in female patients with chronic pelvic pain secondary to focal uterine abscess.<sup>[2]</sup>

The primary investigation modalities for entero-cutaneous, uterocutaneous, tuboenterocutaneous fistula are CT and MRI additionally,<sup>[10]</sup> intravenous contrast enhanced CT and sagittal reconstructions may contribute to reaching prompt diagnosis.<sup>[2]</sup> They have the ability to demonstrate extraluminal disease, like associated abscess, tumors, and other coexisting diseases. The site and the fistulous tract are better delineated which helps in guiding the surgical procedure.<sup>[9]</sup> Thubert et al. believed that hysteroscopy is very helpful in detecting fistula opening in the uterine with its direct vision.<sup>[11]</sup> Traditional contrast investigation like hysterosalpingography is also helpful for fistula communicating genital tract and parities.<sup>[12]</sup>

Management of uterocutaneous fistula is sometimes difficult. Surgical excision of the fistulous tract is the

treatment of choice; most cases end up with hysterectomy,<sup>[13]</sup> however Seyhan et al reported a case of uterocutaneous fistula that was successfully treated with gonadotropin releasing hormone agonist administration.<sup>[6,14]</sup>

## CONCLUSION

Although utero-cutaneous fistula are rarely seen but should be suspected in female patients with suggestive past history. These days various investigations are available which help diagnosing such clinical entities. Exploratory laparotomy is usually required with fistulectomy and treatment of causative factors.

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