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## Case Report

# A rare cause of secondary amenorrhoea due to acquired cervical atresia: a case report and review of literature

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## ABSTRACT

Haematotrachelos, also known as haematocervix, is an extremely rare gynaecological condition characterised by accumulation of menstrual blood within the cervical canal due to obstruction of the cervical os. It represents one of the least common forms of genital outflow tract obstruction. We report a 41-year-old multiparous woman presenting with progressive hypomenorrhoea followed by secondary amenorrhoea and acute pelvic pain. Clinical examination revealed a ballooned cervix with a pinpoint external os. Ultrasonography and magnetic resonance imaging confirmed haematotrachelos with associated haematometocolpos. The patient was successfully managed using a conservative uterus-preserving approach including cruciate cervical incision, serial dilatation, drainage of retained blood, Foley catheter placement intrauterine copper device insertion and adjunct hormonal therapy. Complete resolution of symptoms and restoration of regular menstrual cycles were achieved.

**Keywords:** Haematotrachelos, Haematocervix, Secondary amenorrhoea, Cervical stenosis, Genital outflow tract obstruction

## INTRODUCTION

Haematotrachelos is a rare cause of secondary amenorrhoea resulting from acquired cervical atresia. Obstruction of the female genital tract may result in haematocolpos, haematotrachelos, haematometra, or haematosalpinx depending on the level of obstruction.<sup>1</sup> Congenital causes such as imperforate hymen, transverse vaginal septum, and cervical agenesis usually present during adolescence with primary amenorrhoea.<sup>2,3</sup> Acquired obstruction presents later in reproductive life and is commonly associated with obstetric trauma, repeated cervical instrumentation, cervical surgeries, radiotherapy, infection, malignancy, and hypoestrogenic cervical atrophy.<sup>4,5</sup>

Haematocervix is significantly less common than haematometra, and only isolated case reports are available in the literature.<sup>4,6</sup>

## CASE REPORT

A 41-year-old multiparous woman (P2L2A2) with two previous lower-segment caesarean sections presented with decreased menstrual flow for one and a half years followed by amenorrhoea for five months. She complained of acute lower abdominal pain for seven days associated with difficulty in micturition and defecation. Her past history included two medical terminations of pregnancy requiring dilatation and curettage and an endometrial aspiration for abnormal uterine bleeding. On examination, the cervix appeared ballooned with a pinpoint external os (Figure 1)

Bimanual examination revealed a soft, boggy cervix measuring approximately 6×6 cm. Ultrasonography demonstrated a bulky uterus with echogenic collection in the endometrial cavity and endocervical canal (Figure 2). MRI pelvis showed marked cervical dilatation containing blood products with preserved uterine zonal anatomy,

confirming haematotrachelos and haematometocolpos (Figure 3 and 4).

### Management

Examination under anaesthesia revealed complete cervical stenosis. A cruciate incision was made over the external cervical os followed by serial dilatation using Hegar dilators. Approximately 75-100 ml of altered blood was drained

A 16-French Foley catheter was placed in the cervical canal for 15 days to maintain the patency (Figure 5) Following removal, a copper intrauterine device was inserted (Figure 6).

Adjunct hormonal therapy with conjugated oestrogen and cyclical progesterone was administered for three months. The patient resumed normal menstruation with no recurrence on follow-up.



Figure 1: Ballooned cervix with pinpoint Os.

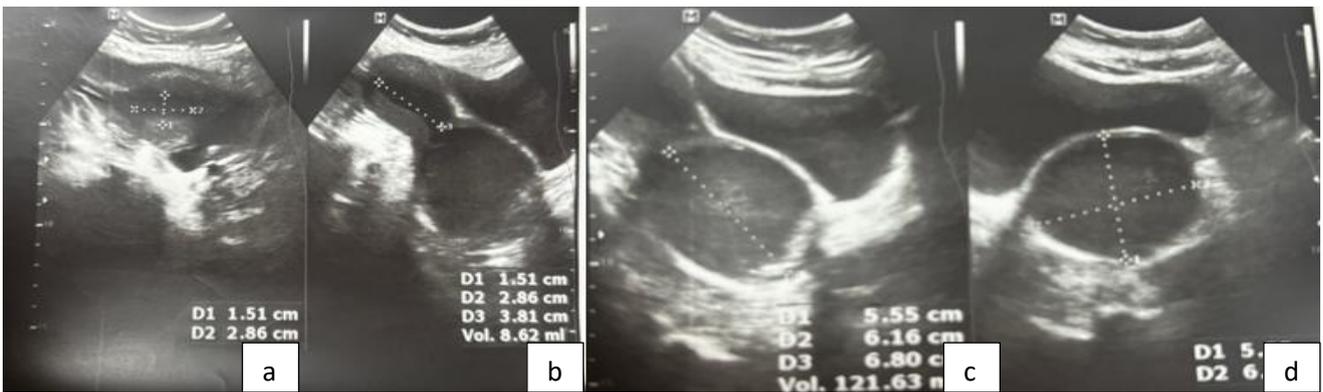


Figure 2 (a-d): Ultrasonography showing haematotrachelos with echogenic content in the endocervical canal.



Figure 3: MRI pelvis sagittal T2 weighted image showing markedly dilated cervix with blood products.

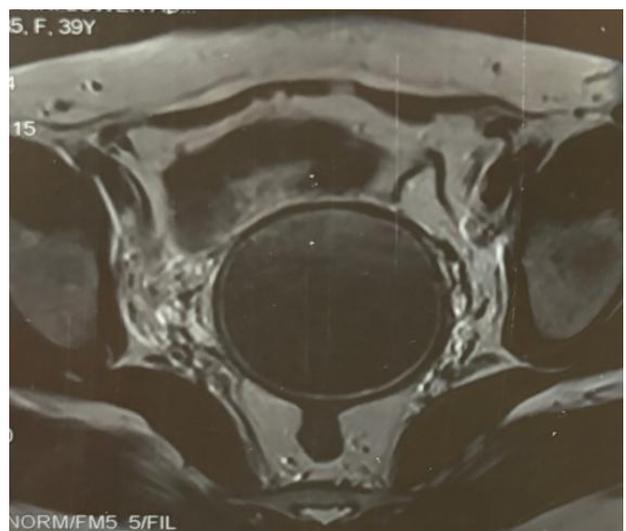
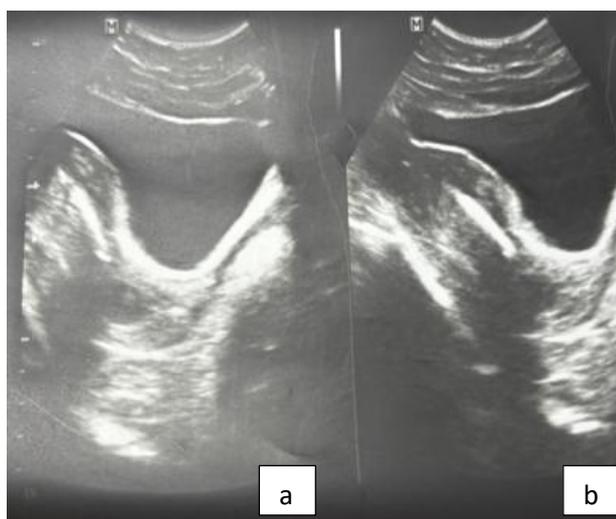


Figure 4: MRI pelvis axial T2 weighted image confirm cervical dilatation with internal blood products.



**Figure 5: Foley catheter placed in the cervical canal to maintain the patency post- procedure.**



**Figure 6 (a and b): Intra-uterine copper device in situ after removal of foley catheter.**

## DISCUSSION

Secondary amenorrhoea is defined as absence of menstruation for three or more months in a woman with previously regular cycles. Pregnancy, lactation, hormonal contraception, and menopause must be excluded before evaluation.<sup>7</sup>

Acquired cervical stenosis results from fibrosis following cervical trauma such as dilatation and curettage, cone biopsy, loop electrosurgical excision procedures, and obstetric lacerations.<sup>4,8</sup> Progressive narrowing of the cervical canal eventually leads to functional obstruction.

Ultrasonography is usually sufficient for diagnosis, while MRI helps confirm the level of obstruction and exclude

malignancy.<sup>9</sup> Biggs et al reported successful cervical dilatation in approximately 83% of cases.<sup>6</sup> Musella et al. demonstrated that indwelling silicone catheters significantly reduce restenosis rates.<sup>5</sup> Motegi et al described successful long-term outcomes following cruciate incision of the external cervical os.<sup>8</sup>

Several authors have reported benefit of intrauterine device placement for maintenance of cervical patency.<sup>9-10</sup> Hormonal therapy has also been shown to reduce restenosis in hypoestrogenic states.<sup>11</sup> Historically, hysterectomy was frequently performed; however, recent evidence supports conservative uterus-preserving management whenever feasible.<sup>4,6</sup>

## CONCLUSION

Haematotrachelos should be considered in women presenting with secondary amenorrhoea and pelvic pain, particularly in those with prior cervical procedures. Conservative management with cervical dilatation, drainage, and maintenance of patency is effective and should be preferred over hysterectomy whenever possible.

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