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## **Secondary Gynatresia in a woman following vaginal birth, successfully managed by modified Fenton's repair**

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### **Abstract**

Vaginal stenosis or gynatresia is a rare complication after vaginal delivery that is not reported well in literature. Formation of scar tissue due to perineal tears during vaginal delivery or poor tissue alignment during perineal trauma repair can lead to scar tissue formation, and can subsequently cause vaginal stenosis.

we present a case of 25 year old woman para 1 with secondary gynatresia post vaginal delivery presented to outpatient clinic complaining of inability to perform sexual intercourse. We managed the case successfully by Modified Fenton's repair.

Women suffering from postpartum superficial dyspareunia or those unable to resume their normal sexual function due to vaginal stenosis should provide an attention and appropriate treatment, so that they can regain their sexual activity and get relief from psychological and physical distress.

**Keywords:** Gynatresia, Vaginal birth, Stenosis, Modified Fenton's procedure

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### **Introduction**

Vaginal stenosis or gynatresia is a rare complication after vaginal delivery that is not reported well in literature. The accurate incidence and prevalence of postpartum vaginal stenosis is not mentioned in earlier studies <sup>[1]</sup>. The term vaginal stenosis is described as an inability to insert two fingers inside the vaginal canal on vaginal examination <sup>[2]</sup>.

Formation of scar tissue due to perineal tears during vaginal delivery or poor tissue alignment during perineal trauma repair can lead to scar tissue formation, and can subsequently cause vaginal stenosis <sup>[3]</sup>. In a retrospective study of 126 cases of acquired gynatresia, around 25% patients were reported with vaginal stenosis after birth injuries, pelvic infections and post-operative injuries <sup>[4]</sup>. Postpartum vaginal stenosis due to scar tissue formation can be initially managed by conservative measures using vaginal dilators or oil/lubricant massage. Modified Fenton's repair is recommended if the conservative management fails <sup>[5]</sup>.

We presented a case, where a 25-year-old para 1 woman, with secondary gynatresia following vaginal delivery, was unable to perform sexual intercourse. We managed the case successfully by Modified Fenton's repair.

### **Case**

A 25-year-old para 1 woman, who had ventouse delivery 10 months earlier, reported to our gynaecology clinic with the complaints of inability to perform sexual intercourse since her delivery. Her delivery history revealed that she had traumatic postpartum haemorrhage and the extended episiotomy with vaginal wall tear was repaired under general anaesthesia. Post-operative days were uneventful, and she was discharged on the

third post-operative day in good condition. Twelve days later she got readmitted with high grade fever associated with lower abdominal pain. Laboratory investigations revealed haemoglobin of 10 gm, normal renal and liver function test, no bacterial growth in blood culture, and high vaginal swab culture. Urine culture showed ESBL (extended spectrum beta lactamase) Ecoli bacterial growth. She was treated with IV antibiotics according to her sensitivity. After 5 days she was discharged in improved condition.

On examination, the patient was found to be average built, and her vitals were stable. She was breastfeeding and her menstrual cycle was regular. As per vaginal examination, external genitalia appeared to be normal, but a fibrous band was felt surrounding the vaginal introitus, which was admitting only one finger with difficulty. Beyond the level of the fibrous band the rest of the vaginal canal was felt normal. The patient was emotionally disturbed and was seeking surgical correction, so planned for surgical repair by Fenton's procedure.

### **Surgical procedure (Fenton's repair)**

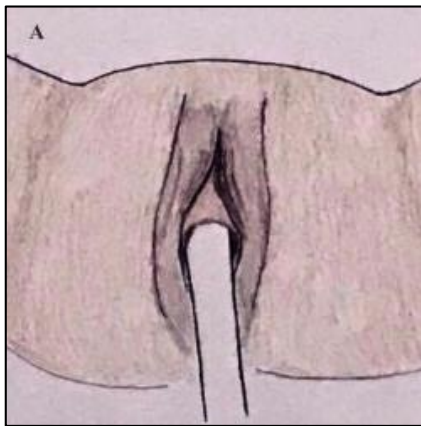
Under general anaesthesia, the patient was kept in lithotomy position. With aseptic precaution, the patient was cleaned and draped, and catheterization was done with Foley's catheter.

A vaginal examination revealed a thick fibrous band next to the introitus, which was allowing entry of only one finger with difficulty (Figure 1-A).

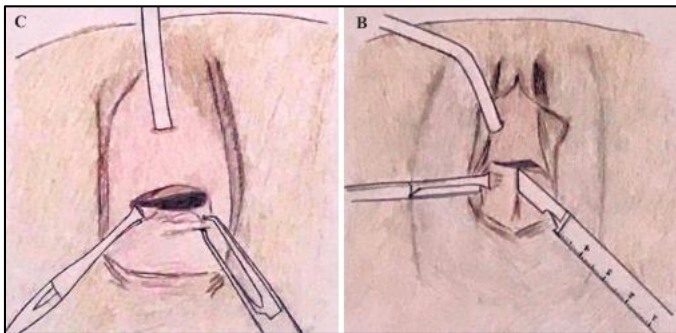
A 2 cm longitudinal incision was made at the lower vagina, involving mucosa and muscle, and the band of fibrous tissue was released and haemostasis was secured (Figure 1-B&C). After removal of the fibrous band, vaginal canal and cervix were found

to be normal. Then, the incision was sutured horizontally by Vicryl 3-0. At the end of the procedure, a Sim's vaginal speculum was inserted easily through the introitus inside the vaginal canal (Figure1-D).

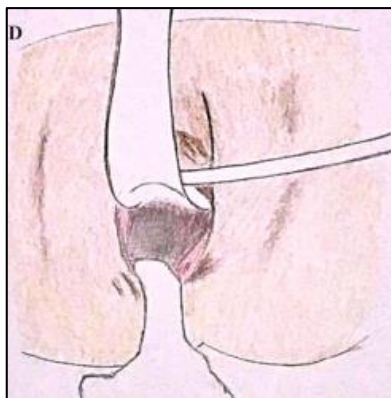
A week after the surgical repair, the patient was seen in the outpatient clinic. On vaginal examination, two fingers were easily inserted through the introitus, and no scar or fibrous band was felt. She was advised to massage the area with lidocaine jelly and resume sexual activity. During subsequent follow-up sessions, there were no complaints relating to coitus.



**Fig 1-A:** A vaginal examination revealed a thick fibrous band next to the introitus, which was allowing entry of only one finger with difficulty



**Fig 1-B&C:** A 2 cm longitudinal incision was made at the lower vagina, involving mucosa and muscle, and the band of fibrous tissue was released



**Fig 1-D:** At the end of the procedure, a Sim's vaginal speculum was inserted easily through the introitus inside the vaginal canal

## Discussion

Secondary vaginal stenosis following childbirth is an under-reported and rare complication. Perineal trauma during delivery, poor tissue alignment during perineal trauma repair, delayed wound healing, infection and hypoestrogenic state of lactation period can lead to the formation of scar tissue and narrowing of vaginal introitus in postpartum women, resulting in superficial dyspareunia or complete interruption of sexual intercourse [6].

In our case the possible cause of vaginal stenosis could have been inappropriate tissue alignment during episiotomy and vaginal tear repair or the genitourinary tract infection during her early postpartum period.

Narrowing of vaginal introitus as a result of formation of fibrous or scar tissue band at the level of introitus can cause superficial dyspareunia or lead to failure in resuming coital activity following childbirth. Patients may be presented with severe pain and bleeding from vagina at the time of penetration during sexual intercourse due to the stretching of the scar tissue [7].

This distressing condition has a negative impact on the sexual relationship, and the emotional and psychological state of a woman's life. The management of acquired gynatresia includes conservative management and surgical repair. Conservative measures such as vaginal dilators or massage with Vitamin E oil and lubricant jelly are effective in some cases, as mentioned in previous studies. In case the conservative treatment fails, the modified Fenton's repair is the treatment of choice [3].

The 'Modified Fenton procedure involves dividing the perineum and lower vagina vertically and suturing the incision horizontally [5].

If the stenosis and adhesions are more extensive, surgical correction can be carried out by vaginoplasty [8].

There was a study of 24 patients with superficial dyspareunia following childbirth due to formation of scar tissue in the vagina. They were handled by way of the modified Fenton's repair procedure after the failure of the conservative approach. The result of the series concluded that 60.8% and 39% patients had complete and moderate recovery respectively [5].

We, too, successfully managed our case with the help of the modified Fenton's procedure and the outcome was satisfactory.

Although postpartum vaginal stenosis is a rare complication, obstetricians should carefully deal with patients with various degree of perineal trauma during childbirth by regular follow-up to avoid long-term consequences of sexual dysfunction [1].

Women suffering from postpartum superficial dyspareunia or those unable to resume their normal sexual function due to vaginal stenosis should provide an attention and appropriate treatment, so that they can regain their sexual activity and get relief from psychological and physical distress.

## References

1. Howard TF, Lewicky-Gaup C. Postpartum Vaginal Agglutination. *Female Pelvic Med Reconstr Surg* [Internet]. 2012 [cited 2017 Dec 27]; 18(3):188-9. Available from: <http://content.wkhealth.com/linkback/openurl?sid=WKPTLP:landingpage&an=01436319-201205000-00015>.
2. Kunwar S, Khan T, Gupta H. Acquired gynatresia. *BMJ Case Rep* [Internet]. 2014 Apr 28 [cited 2018 Jan 3]; 2014:

- bcr2014203529. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24777085>
3. Vallabu S, Bulchandani S. Fenton's Procedure: Revisited. *Reprod Syst Sex Disord* [Internet]. 2016; 21 [cited 2015(4)]. Available from: <https://www.omicsonline.org/open-access/fentons-procedure-revisited-2161-038X-1000196.php?aid=83672>
  4. Arowojolu MA, Okunlola AOA, Okunlola MA, Adekunle AO, Ilesanmi AO. Three decades of acquired gynaetresia in Ibadan: clinical presentation and management. *J Obstet Gynaecol (Lahore)* [Internet]. 2001 2 [cited 2017 27]; 21(4):375-8. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/12521830>.
  5. Chandru S, Nafee T, Ismail K, Kettle C. Evaluation of Modified Fenton procedure for persistent superficial dyspareunia following childbirth. *Gynecol Surg* [Internet]. 2010; [cited 2017 Dec 27]; 7(3):245-8. Available from: <http://link.springer.com/10.1007/s10397-009-0501-7>
  6. Agarwal A, Agarwal A, Lal Meena M, Meena P, Goyal R. Secondary Gynaetresia: A Rare Complication of Traumatic Post Partum Haemorrhage. *IOSR J Dent Med Sci* [Internet]. 2015 [cited 2017; 14(5):2279-861. Available from: [www.iosrjournals.org](http://www.iosrjournals.org)
  7. Kettle C, Ismail KM, Mahony F. Dyspareunia following childbirth. *Obstet Gynaecol* [Internet]. 2005 Oct 1 [cited 2018; 7(4):245-9. Available from: <http://doi.wiley.com/10.1576/toag.7.4.245.27119>
  8. Ray Das C, Bora R, Das B. Acquired vaginal stenosis following caesarean delivery: a case report. *Int J Reprod Contraception, Obstet Gynecol* [Internet]. 2017 Oct 28 [cited 2017; 6(11):5158. Available from: <http://www.ijrcog.org/index.php/ijrcog/article/view/3617>