

An Inevitable Caesarean Section Secondary to Iatrogenic Cervical Stenosis following Hysteroscopic Polypectomy

Anusha Devalla¹, Puja Bhol², VedPrakash Rao Cheruvu³

How to cite this article:

Anusha Devalla, Puja Bhol, VedPrakash Rao Cheruvu. An Inevitable Caesarean Section Secondary to Iatrogenic Cervical Stenosis following Hysteroscopic Polypectomy. Ind J Matern-Fetal & Neonatal Med 2024;11(2):63-65.

Abstract

Background: Cervical septum, a rare congenital uterine anomaly, can occasionally be acquired following surgical procedures on the cervix or in the uterus. While most cases are diagnosed incidentally during evaluation for infertility or recurrent miscarriage, acquired cervical septa have been rarely reported following cervical interventions such as hysteroscopy, conization. The impact of such abnormality on subsequent pregnancy outcomes still remains largely unexplored.

Aim: Here, we report the case of a 28-year-old female, gravida 3, abortion 2, at 37+4 weeks, with gestational hypertension, who presented for safe confinement and was found to have a cervical septum.

Discussion and conclusion: This anomaly is believed to have developed following a hysteroscopic cervical polypectomy performed. The clinical course and management of this patient underscore the need for heightened awareness of potential complications following such interventions on labour.

Keywords: Acquired cervical stenosis, Hysteroscopic polypectomy, labour dystocia, Operative hysteroscopy.

INTRODUCTION

Cervical stenosis is a rare anomaly that may occur following interventions such as hysteroscopy

Authors Affiliation: ¹Assistant Professor, ²Senior Resident, Department of Obstetrics and Gynecology, All India Institute of Medical Sciences, Bibinagar, India, ³Additional Professor, Department of Burns and Plastic Surgery, All India Institute of Medical Sciences, Bhopal, India.

Correspondence Author: Anusha Devalla, Assistant Professor, Department of Obstetrics and Gynecology, All India Institute of Medical Sciences, Bibinagar, India.

E-mail: anushadevalla2@gmail.com

Received on: 24.12.2024

Accepted on: 24.01.2024

procedures, conization, dilatation and curettage, which may cause scarring or fibrosis within the cervix.¹ Although congenital cervical septa are linked to infertility and preterm birth, the effects of an acquired septum on pregnancy and labour are less understood.^{2,3} The presence of a cervical septum during labour induction may complicate cervical dilation, potentially leading to delayed labour, cervical dystocia, or obstructed progression.

CASE SUMMERY (STUDY)

A 28-year-old female, third gravida with previous first trimester losses (not followed by any curettage), presented to antenatal OPD with gestational hypertension at 37 weeks 4 days. Obstetric examination suggested a fetal growth restriction



(up to 34 weeks) and liquor clinically reduced, was further confirmed on obstetric ultrasound. Decision of termination of pregnancy was made in view of these findings. Per vaginal examination to assess the bishop score incidentally revealed a thick cervical septal/fibrotic band at the level of cervical canal/internal os. Upon enquiring, the patient revealed a previous history of hysteroscopic resection for an endocervical polyp (2.5 x 3cm) ten months back. Her previous menstrual cycles were heavier prior to the procedure. The patient immediately conceived in the month following the procedure.

Considering the nature of the condition, an attempt to mechanically dilate the cervix through

an intracervical Foley's catheter 18F performed. A trial of dinoprostone gel induction of labour was attempted in view of failure of mechanical induction of labour. There were no cervical changes observed that warranted a caesarean section. Intraoperatively, a dense fibrotic band was noted at the level of internal os (Fig. 1) after delivery of placenta. Postoperatively, the drainage of lochia was observed for a few days and the patient was discharged on day 5 after an uneventful stay. A 6-monthly follow-up done and cervical dilatation attempted with minimal success. Following which the patient is having regular menstrual cycles with reduced flow.

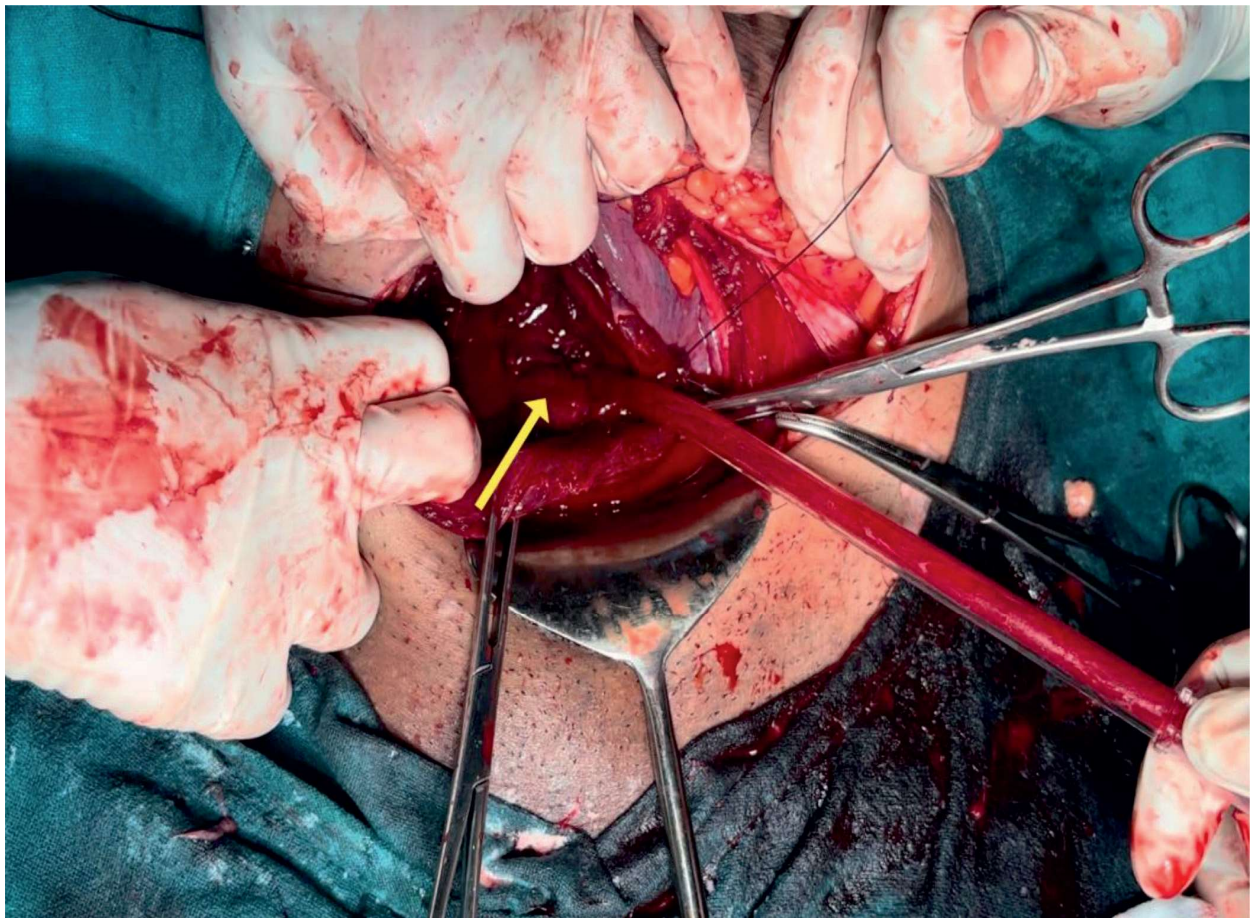


Fig. 1: Intraoperative finding showing thick fibrotic band (yellow arrow) in the region of internal os during the caesarean section

DISCUSSION

Cervical stenosis has a multifactorial etiology. It is the result of adhesion processes that can lead to the narrowing or total obliteration of the cervical canal. The decision for caesarean section was based on a combination of factors including labour

progression, abnormal cervical anatomy, and the patient's medical history. The procedure related scar tissue from the endocervical polypectomy potentially prevents normal cervical dilation and complicate labour.⁴

Bettocchi in 2016 that recognizes four types of cervical stenosis depending on the structure or

structures affected into four types (Type I-ECO stenosis, II-Cervical canal and ICO stenosis, III-ICO stenosis and IV-ECO and ICO stenosis).⁵ Although theoretically possible, this complication has never been reported except for a recent report of hysteroscopic resection of caesarean scar disorders causing cervical stenosis by Higuchi et al.⁹

Recent advances in the hysteroscopic equipments and improved operator experience makes operative hysteroscopy an ideal technique to obviate the need for any need for general anesthesia.⁶ It has shown to have high success rate, particularly in cases of severe cervical stenosis, and is currently considered the gold standard for managing this condition. Despite the availability of miniaturized instruments that have made the management of cervical stenosis more feasible, it remains a complex task, even for experienced hysteroscopists.⁴ There are no imaging techniques suited to evaluate the patency of the cervical canal or to identify adhesions.⁷ The procedure allows the visualization of the cervical canal under magnification, enabling evaluation of the extent, localization and consistency of the adhesions.⁸ Cervical stenosis is frequently diagnosed during routine clinical practice, when at the time of performing a pap smear the ECO is closed and not accessible to sampling of the cervical canal with the cytobrush. Transvaginal ultrasound may be useful in the diagnosis of complications as a result of cervical stenosis such as hematometra, pyometra, or hydrometra.

The procedure of cervical dilatation has been described by A Groutz et al in 1999 and has been used as an alternative strategy to non-surgical methods and is associated with few limitations.⁹

CONCLUSION

Given the increasing use of cervical procedures in the management of benign gynecological conditions, awareness of the potential for an acquired cervical stenosis is important for obstetric care. Recognition of this rare complication can guide appropriate management strategies to optimize maternal and fetal outcomes.

Conflict of Intestate: None

Funding: None

Ethics Declaration: No ethical concerns involved

Figure legend:

REFERENCES

1. Baldauf JJ, Dreyfus M, Ritter J, Meyer P, Philippe E. Risk of cervical stenosis after large loop excision or laser conization. *Obstet Gynecol.* 1996 Dec;88(6):933-8.
2. Higuchi N, Sako Y, Shiota K, Hirata T. Cervical Stenosis After Hysteroscopic Surgery for Cesarean Scar Disorder. *Cureus.* 16(3):e56922.
3. Kalstone C. Cervical stenosis in pregnancy: A complication of cryotherapy in diethylstilbestrol-exposed women. *American Journal of Obstetrics and Gynecology.* 1992 Feb 1;166(2):502-3.
4. Vitale SG, De Angelis MC, Della Corte L, Saponara S, Carugno J, Laganà AS, et al. Uterine cervical stenosis: from classification to advances in management. Overcoming the obstacles to access the uterine cavity. *Arch Gynecol Obstet.* 2024 Mar 1;309(3):755-64.
5. Bettocchi S, Bramante S, Bifulco G, Spinelli M, Ceci O, Fascilla FD, et al. Challenging the cervix: strategies to overcome the anatomic impediments to hysteroscopy: analysis of 31,052 office hysteroscopies. *Fertil Steril.* 2016 May;105(5):e16-7.
6. Pluchino N, Ninni F, Angioni S, Artini P, Araujo VG, Massimetti G, et al. Office vaginoscopic hysteroscopy in infertile women: effects of gynecologist experience, instrument size, and distention medium on patient discomfort. *J Minim Invasive Gynecol.* 2010;17(3):344-50.
7. The Use of Hysteroscopy for the Diagnosis and Treatment of Intrauterine Pathology | ACOG [Internet]. [cited 2024 Dec 31]. Available from: <https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2020/03/the-use-of-hysteroscopy-for-the-diagnosis-and-treatment-of-intrauterine-pathology>
8. Hysteroscopy: a technique for all? Analysis of 5,000 outpatient hysteroscopies - PubMed [Internet]. [cited 2024 Dec 31]. Available from: <https://pubmed.ncbi.nlm.nih.gov/17482613/>
9. Groutz A, Lessing JB, Wolf Y, Yovel I, Azem F, Amit A. Cervical dilatation during ovum pick-up in patients with cervical stenosis: effect on pregnancy outcome in an in vitro fertilization-embryo transfer program. *Fertil Steril.* 1997 May;67(5):909-11.

