# Eluding Cervix: A Case Report of Transverse Vaginal Septum in Labor

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### ABSTRACT

**Aim:** To highlight the complications of partial transverse vaginal septum.

**Background:** The transverse vaginal septum is one of the rarest anomalies of the female genital tract with an incidence of 1:70,000 women. Most often the diagnosis of the partial transverse vaginal septum is first made in labor. In an inexperienced hand, the partial transverse vaginal septum can be initially mistaken as a well effaced and partially dilated OS.

Case discussion: A 22-year-old unbooked primigravida, presented at 38 weeks in latent labor. On examination, her gestational age corresponded to term, fetus in cephalic position. Fetal heart rate 140-150/minutes. Per vaginal examination raised suspicion of the partial transverse vaginal septum as the finding was a blind pouch with 1 cm aperture and consistency of septum differed from the effaced cervix. Cervix could not be separately felt. Speculum examination revealed a transverse septum at upper one-third of the vagina with a central opening of 1–2 cm. The patient was reevaluated in active labor, and the septum felt thick, she was posted for emergency LSCS to prevent extensive vaginal lacerations or obstructed labor. Postoperative period she was reexamined and it revealed a blind pouch with a central opening, anterior lip of cervix was seen partially through the aperture. Lochia was draining through the opening. Uterus involuted in two weeks.

**Conclusion:** Antenatal assessment of septal thickness by trans vaginal sonography can aid in planning the mode of delivery. Women with thin transverse vaginal septum can safely undergo a trial of labor. Diagnosis of the thick partial transverse vaginal septum is necessary to prevent the patient from having extensive vaginal lacerations or obstructed labor by posting for emergency LSCS.

**Keywords:** Congenital vaginal anomaly, Labor, Partial transverse vaginal septum, Septal thickness.

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## BACKGROUND

The transverse vaginal septum is one of the rarest anomalies of the female genital tract with an incidence of 1:70,000 women.<sup>1</sup> Partial variety of transverse vaginal septum is usually first detected in labor, as the small aperture allows the flow of menstrual blood and hence does not present with primary amenorrhoea. The aperture with the partial transverse vaginal septum can be easily mistaken as well effaced and partially dilated OS by an inexperienced hand.

#### CASE DESCRIPTION

A 22-year-old unbooked primigravida presented at 38 weeks in latent labor. She had an uneventful antenatal period. There was no history of congenital anomaly in the family. She had regular cycles with the normal menstrual flow without dysmenorrhea. Married for one year and no history of dyspareunia. On examination, her gestational age corresponded to term, fetus in cephalic position, with mild contractions. Fetal heart rate 140–150/ minutes. Examination of external genitalia revealed a normal introitus. Initial per vaginal examination was concluded as well effaced, and 1 cm dilated cervical os with the average gynecoid pelvis. The patient was reexamined in active labor. Per-abdomen fetal head was mobile. Reexamination of cervical status raised suspicion of the partial transverse vaginal septum as the finding was a blind pouch with 1 cm aperture and consistency of septum differed from the effaced cervix. The septum was located in upper one-third of the vagina. Fetal head was palpable beyond the septum. Cervix could not be separately felt. Per-speculum examination revealed a transverse septum at upper one-third of the vagina with a central opening of 1–2 cm (Fig. 1).

As the patient was in active labor, with no progress and the septum felt thick, she was posted for emergency LSCS to prevent obstructed labor or extensive vaginal lacerations extracted a healthy male baby of 3.1 kg. Postoperative period she was reexamined and it revealed a blind pouch with a central opening and anterior lip of cervix was seen partially through the aperture. Lochia was draining through the opening (Fig. 2).

Postpartum was uneventful without lochiometra. Uterus involuted in 2 weeks.



Fig. 1: Per-speculum image in labor

## DISCUSSION

Transverse vaginal septum arises due to the failure of resorption of tissue between the vaginal plate and fused Müllerian duct. This anomaly has been linked to autosomal recessive transmission.<sup>2,3</sup> The membrane histological is a fibrous membrane of connective tissue with muscular and vascular component.<sup>4</sup> Inferior surface is lined with squamous epithelium and superior surface with either squamous or columnar epithelium.<sup>4</sup>

Forty-six percent of the septum is located in the upper vagina, 35% in the mid-vagina and 19% in lower vagina.<sup>1</sup> The thickness of the septum can vary between 1 cm and 6 cm.

The transverse vaginal septum is of two varieties, complete and partial or incomplete.

The complete vaginal septum is diagnosed at puberty as these children present with primary amenorrhoea.<sup>1</sup> This requires resection of the septum for the normal functioning of the vagina to facilitate menstrual flow and for coitus. Ahmed et al. have described a case report of a 12-year-old girl with hematocolpos secondary to the transverse vaginal septum and imperforate hymen.<sup>5</sup> The partial septum is usually asymptomatic as the central aperture allows menstruation. The partial septum can present with dyspareunia if present in lower 1/3rd of the vagina. It is commonly diagnosed incidentally during a gynecological examination or when the patient is examined in labor<sup>6</sup> or for MTP.<sup>7</sup> Partial septum causes no complications in the antenatal period but in labor a septum if thick can lead to obstructed labor, uterine rupture, and vaginal lacerations.<sup>6,7</sup> Hence, a timely diagnosis and delivery by LSCS are necessary to prevent this morbidity. In patients with a thin septum, expectant management with the plan of either allowing spontaneous dissection of the septum as a result of fetal head descent and cervical dilation or an incision in



Fig. 2: Postoperative image

late labor when the septum is further thinned out can be attempted Blanton et al. have reported two patients with partial transverse vaginal septum who underwent successful vaginal delivery after a trial of labor although both patients sustained minor vaginal lacerations.<sup>8</sup> Üstün et al. also reported similar success with vaginal delivery in a patient with preterm labor at 28 weeks and septum in the mid-vagina.<sup>9</sup> If diagnosed before the onset of labor transvaginal ultrasound is useful in planning the mode of delivery by assessing the thickness of the septum.<sup>7,10</sup>

# CONCLUSION

There are no guidelines on the management of this condition, hence the mode of delivery is to be individualized for each patient. Transvaginal sonography can be a useful tool if diagnosed in the antenatal period.

## **CLINICAL SIGNIFICANCE**

Incomplete septum if thick can lead to obstructed labor, uterine rupture, and vaginal lacerations. Hence a timely diagnosis and delivery by LSCS are necessary to prevent this morbidity. Patients with thin septa can undergo a trial of labor. There is no cutoff for the thin and thick septum, and hence clinical judgment is necessary to decide on the mode of delivery.

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