

Cervical conglutination: a rare disorder of uterine cervix

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ABSTRACT

Cervical conglutination is quite rare complication of labor that can be misinterpreted as fully dilated totally effaced intact amniotic membrane, and in inexperienced hands trying to open the membrane results in the catastrophic outcome. Only a few articles present in literature and most of them are very old articles. Sharing this rare disorder as an experience may increase the attention of obstetricians and midwives to be careful about such condition in prolonged labor cases.

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Introduction

Cervical conglutination is one of the rarest disorders of uterine cervix in labor due possibly to inappropriate dilatation-effacement relationship. A very rare disorder that can easily be misinterpreted as fully effaced cervix with a strong unruptured amniotic membrane. Careless evaluation and trying to open the amniotic membrane in such cases may result in a deep uterine tear that may proceed up to corpus with the strong uterine contractions [1].

Obstetricians should be careful in evaluating patients with strong contractions and full effacement with intact amniotic membrane which gives an abnormal amniotic membrane feeling in cervical examination. Thorough evaluation of amniotic membrane reveals a pin point opening and a small tuberosity (nipple like structure) on the membrane and experienced physicians could interpret this as cervical

conglutination and emergency cesarean section should be organized as soon as possible with a careful control and suturing of the laxated dilated cervico-istmic region of uterus for preventing abnormal bleeding. Any obstetrician suspected from conglutination must share this experience with the other colleagues and residents to have an idea about how conglutination happens and how cervical examination findings are.

Case Presentation

Here we present a case of cervical conglutination in a 27-year-old term primigravida woman admitted to delivery room for fully effaced cervix with intact amniotic membrane and emergency delivery was arranged. As we experienced in our teaching hospital

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practice in residency in two cases, the evaluation of the patient gave us the same sensation that something is wrong with the full dilatation. Careful cervical evaluation revealed a small tuberosity on the surface and a very tiny opening was observed on the paper-thin membrane and we diagnosed this as cervical conglutination and all team including midwives examined the patient with permission. The rarity and the possible risks were explained to both patient and her relatives and cesarean section was carried out with the delivery of a healthy 3210 grams male baby with 8-10 APGAR score. At the cesarean section fluctuating cervico-isthmus region was carefully sutured

and evaluated for any bleeding taking place or not. No parametrial tearing was observed per op and cervix was dilated through the abdominal route by a ring forceps in order to prevent blood collection in the uterine cavity that may complicate the postoperative course.

Patient was followed two days after operation and no any postoperative complications were observed and she was discharged from hospital and called for control one week later and the physical evaluation was normal. Later follow up revealed no any problems related to this rare problem.

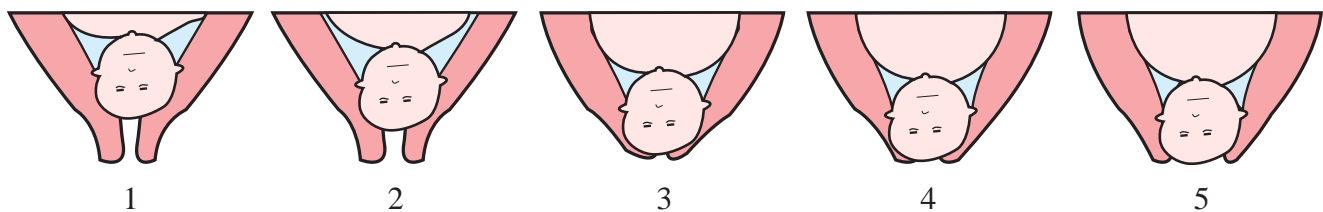


Figure 1. Illustration of effacement and dilatation of the cervix. During the labor, the cervix opens (dilates) and thins out (effaces). The cervix is closed (1), the cervix is partly effaced (2), the cervix is fully effaced (3). A partial dilatation is 2-4 cm (4), and dilatation is upto 8-10 cm (5).

Discussion

Cervical conglutination or conglutinatio cervicis uteri orifici externi is one of the rarest obstetrics complications that misdiagnosis may result in detrimental effects. This clinical situation is quite rare that you cannot find any reports in literature. PubMed search revealed two reports published in 1957 by Lope Garcia *et al* [2]. and in 1951 by Morgan and Price in journal of obstetric gynecol Br emp [3]. We found a small paragraph in the oldest book of Kazim Arisan one of the greatest physicians in obstetrics in Turkey [1]. Our main reference was previous two case experiences.

There is no sonographic or other diagnostic method to be used for this rare disorder and no photography can be presented here and the only diagnostic tool is the physician's experience or in other words sense of clinic. This condition can be predicted in cases with controlled labor but most of the time these cases directed to cesarean section due to prolonged labor. All cases we faced are emergency cases with full effacement and intact amniotic membrane thus it becomes more important to know that cervical

conglutination should be kept in mind in such obstetrical emergency situations.

The incidence may be higher than expected but there is no data about how often this complication happens. Also the number of elective cesarean sections is so high in Turkey that may be many of the problematic complications were bypassed by this approach. However all obstetricians and also midwives must be alert about such a rare but deteriorating complication with very good cervical examination at labor.

The dilatation and effacement are the two main components of cervical ripening during labor that takes place mostly synchronously with the contractile power of the uterus and the mechanical support of fetal head (Figure 1). Any changes in the synchrony of ripening process will result in distocia that may trouble the normal delivery or may push the team for cesarean section. The uterine contractions are strong and painful.

Incoordinate dilatation and effacement can be managed by pain relieving medications and or

iatrogenic amniotic membrane rupture or by induction but long delay in labor process should lead obstetricians to cesarean section [4].

Generally the fetal head is one of the main power for cervical opening and ripening but fetal head can be found mobile and not launched while dilatation and effacement is going on.

Pathological mechanism of conglutination is not known and there is not enough knowledge or literature supporting this rare disorder. James O. Waterman in his publication described conglutination of cervix as achalasia of cervix where cervical canal is effaced or obliterated but external os remains closed at times difficult to locate. In that paper Carter (1941) was evaluated literature from 1859 and found 28 articles most of which were case reports [5]. None of the papers distinguished primary achalasia of cervix from secondary forms from inflammation surgery or injuries. Pathological mechanism is believed to be due to non-relaxation of the circular fibers around the os and is similar to the conditions which occur in the esophagus and colon producing achalasia of the cardia and Hirschprung's disease respectively. The symptomatology is similar to normal labor but labor is prolonged in cervical conglutination. The cervix is usually thin soft and more or less obliterated or it may be soft and oedematous. The external os after a varying interval of time may dilate and patient deliver herself spontaneously [5]. A small description is written in Varney's midwifery book as catastrophic complication of labor that is rarely seen and needs urgent obstetrician support. All literatures here are very old publications and it was not easy to find them and this paper will be a reminder after a long time of such a rare disorder of cervix .

The ministry of health of Turkey has been trying to lead the obstetricians to more spontaneous deliveries than cesarean section which brings more obstetrical complications together. Thus any obstetrical rarity should be kept in mind and our aim is to remind a forgotten obstetrical emergency to our colleagues they may onetime confront in the delivery room.

Conclusion

Cervical conglutination is quite rare complication of labor that can be misinterpreted as fully dilated totally effaced intact amniotic membrane and in inexperienced hands trying to open the membrane results in catastrophic outcome. Only a few articles present in literature and most of them are very old articles. Sharing this rare disorder as an experience may increase the attention of obstetricians and midwives to be careful about such condition in prolonged labor cases.

Informed Consent

Written informed consent was obtained from the patient for the publication of this case report.

Competing interests

The author declares that he have no competing interests with respect to the authorship and/or publication of this article.

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