## Case report

# CERVICAL BRID FORMATION AFTER CESAREAN DELIVERY: A CASE REPORT

GÖKHAN AÇMAZ<sup>1</sup>, HİLAL USLU YUVACI<sup>1</sup>, HÜSEYİN AKSOY<sup>2</sup>, ÜLKÜ AKSOY<sup>1</sup>, İPTİSAM İPEK MÜDERRİS<sup>3</sup>

- 1 KAYSERİ EDUCATION AND TRAINING HOSPITAL OF MEDICINE, DEPARTMENT OF OBSTETRICS AND GYNECOLOGY
- 2 KAYSERİ MILITARY HOSPITAL DEPARTMENT OF OBSTETRICS AND GYNECOLOGY
- 3 ERCİYES UNIVERSITY DEPARTMENT OF OBSTETRICS AND GYNECOLOGY, turkey

#### **ABSTRACT**

A 29 year old woman, whose third C/S was applied seven months ago without any complication admitted to our hospital for contraception with an intrauterine device. After pelvic examination; a bird, which was lying from cervicovesical junction to posterior fornix was detected. A vaginal approach was applied to remove the bread from the cervix and cervical dilatation with Hegar dictators was performed for potential haematometria formation. After cervical dilatation, hysteroscopy was applied for probable intrauterine adhesions and no adhesion was detected. To the author's knowledge, intraabdominal postoperative adhesions may play a role for small bowel obstruction, pelvic pain, and infertility that require repeating operative procedures. Haematometria, infertility and cervical stenosis may be a result of cervical brid which may be a complication of C/S. As we did not detect any intrauterine adhesion, removing the cervical brid and dilatation of cervix with Hegar dilatators was curative.

## **INTRODUCTION**

Extraperitoneal cesarean section (C/S) is one of the most frequent surgeries and used for the prevention of infection and postoperative adhesion. Although the appropriate use of C/S has a close relationship with a decrease in perinatal mortality and morbidity rates,

corresponding author: GÖKHAN AÇMAZ

Email:gokhanacmaz@mynet.com

it is also associated with an increased possibility of maternal postpartum morbidity (1). Adhesions can be defined as pathological bonds between surfaces of the peritoneum or pelvic cavities formed during the scarring of peritoneal surface defects. These bonds may range from a thin film of connective tissue to a thick and fibrous bridge containing blood vessels or a direct connection between two organ surfaces (2).

Postoperative adhesions may play a role for small bowel obstructions, pelvic pain, infertility and require repeating operative procedures (3).

Adhesions were found in % 46 of women whose repeat C/S was done and this rate increased with the number of repeat cesareans (4).

Special hormonal state of the mother, amniotic fluid and surgical suture materials have an influence on the formation of adhesions and this situation has been shown in different researches (5-7). Scars and intraabdominal adhesions are both tissue healing process and sometimes can be determined incidentally (8). We aimed to present a very rare form of adhesion formation after C/S on the cervix which was determined incidentally.

#### **CASE**

A 29 years old woman, gravida 3, para 3 was admitted to our hospital for intrauterine device replacement after her third C/S. Her third C/S was applied seven months ago without any complication. The patient had lactational amenorrhea. After pelvic

## **Before operation**



examination; a bird, which was lying cervicovesical iunction posterior fornix was detected. Ultrasonic examination did not show any pathological finding. Despite there was no other abnormality on pelvic examination, the location of the brid required to make ped test for eliminating fistula formation. Fistula formation was not determined. All laboratory tests including hormonal profile, hematological and biochemistry parameters were normal. After hCG test, pregnancy was not detected, informed written constant form obtained from the patient. A vaginal approach was applied to remove the brid from cervix and cervical dilatation with Hegar dilatators was performed for potential haematometria formation. After cervical dilatation, hysteroscopy applied for possibility intrauterine adhesions and no adhesion was seen. Surgical procedure was completed without any complication.

## After operation



#### **DISCUSSION**

Adhesions are the well recognized consequence of tissue trauma that may result from sharp, mechanical or thermal injury, infection, radiation, ischemia, desiccation, abrasion, or foreign-body reaction. Such trauma may trigger a cascade of events that begins with the disruption of stromal mast cells, which release vasoactive substances such as histamine and kinins that increase vascular permeability (9).

In 1926 Kerr introduced the most popular approach of low transverse incision in the uterine wall, which is the one being used by the majority of surgeons today. The overall complication rate of C/S is 11.6% although this rate is much higher for emergency C/S (14.5%) than for elective C/S (6.8%) (10).

During the delivery of fetus with C/S, many of the surgeons apply a low segment incision on uterine wall and elongation of the incision to the cervix and vagina can be detected as an intraoperative complication. Slipshod suturation of the incision may be resulted with formation of adhesions on different surfaces. In this case, the patient had amenorrhea which may be the leading cause we didn't detect any heametometria. Cervical dilatation and hysteroscopy was applied for potential complications such as intrauterine adhesions and haematometria.

A case of secondary amenorrhea with severe intrauterine adhesions and chronic uterine torsion after C/S in a teenage girl was reported (11). The case we are reporting differ from that case as our patient had no evidence of intrauterine adhesions and minimal invasive vaginal approach and hysteroscopy was applied. Only an adhesion on cervix was detected and it was removed from cervix by vaginal operation approach. The performed in order to prevent haematometria formation of and cervical stenosis.

### CONCLUSION

Intraabdominal postoperative adhesions may play a role for small obstruction, bowel pelvic pain, infertility and require repeating operative procedures (3). Haematometria, infertility and cervical stenosis can be a result of cervical brid which can be a complication of C/S. As we did not detect any intrauterine adhesion, removing the cervical brid and dilatation of cervix with Hegar dilatators was curative.

## **REFERENCES**

- 1. Nielsen TF, Hokegard KH. Postoperative cesarean section morbidity: a prospective study. Am J Obstet Gynecol 1983; 146:911–6.
- 2. Bart W. J. Hellebrekers, M.D. Trudy C. M. Trimbos-Kemper, M.D. Ph.D. J. Baptist M. Z. Trimbos, M.D. Ph.D. Jef J. Emeis, Ph.D. and Teake Kooistra, Ph.D. Use of fibrinolytic agents in the prevention of postoperative adhesion formation Fertil Steril 2000;74.
- 3. Tingstedt B, Isaksson K, Andersson E, Andersson R. Prevention of abdominal adhesions- present state and what's beyond the horizon? Eur. Surg. Res. 2007;39:259-268.

- 4. Morales KJ. Gordon MJ. Bates GW. Postcesarean delivery adhesions associated with associated with delayed delivery of infant. Am. J. Obstet. Gynecol. 2007;196:461 e1-6.
- 5. Golan A. Stolik O. Wexler S. Niv D. Ber A. David MP. The effect of amniotic fluid on intraperitoneal adhesion formation-an experimental study. Int J. Fertil 1991;36:317-20.
- 6. Hellebrekers BW. Trimbos-Kemper TC. Trimbos JB. Emeis JJ. Kooistra T. Use of fibrinolytic agents in the prevention of postoperative adhesion formation. Fertil Steril 2000;74:203-12.
- 7. Wiczyk HP. Grow DR. Adams LA. O'shea DL. Reece MT. Pelvic adhesions contain sex steroid receptors and produce angiogenesis growth factors. Fertil Steril 1998;69:511-516.

- 8. Atiyeh BS, Ioannovich J, Al-Amm CA, El-Musa KA, Dham R. Improving scar quality: a prospective clinical study. Aesthetic Plast Surg 2002;26:470–6.
- 9. Diamond MP, El-Mowafi DM. Pelvic adhesions. Surg Technol Int 1998;VII:273–83.
- 10. Bergholt T, Stenderup JK, Vedsted-Jakobsen A, Helm P, Lenstrup C. Intra-operative surgical complication during cesarean section: an observational study of the incidence and risk factors. Acta Obstet Gynecol Scand 2003;82(3): 251-6.
- 11. Badawy SZ, Orbuch L, Khurana KK Secondary amenorrhea with severe intrauterine adhesions and chronic uterine torsion after caesarean section in a teenage girl J Pediatr Adolesc Gynecol. 1998 May;11(2):93-6.