



MATERNAL-FETAL SURGICAL PROCEDURES FOR INTRAUTERINE MYELOMENINGOCELE REPAIR IN POLAND

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- Since 2005 71 IUMR cases in singleton pregnancies, aged 20+0 weeks to 25+6 weeks of gestation were performed.
- Our operation technique was based on the experiences gained in Nashville (dr Joseph Brunner)



The surgery was conducted under simultaneous general thoracic anesthesia and epidural analgesia.

□ Epidural analgesia:

0.5% Marcaine (15-17 ml)

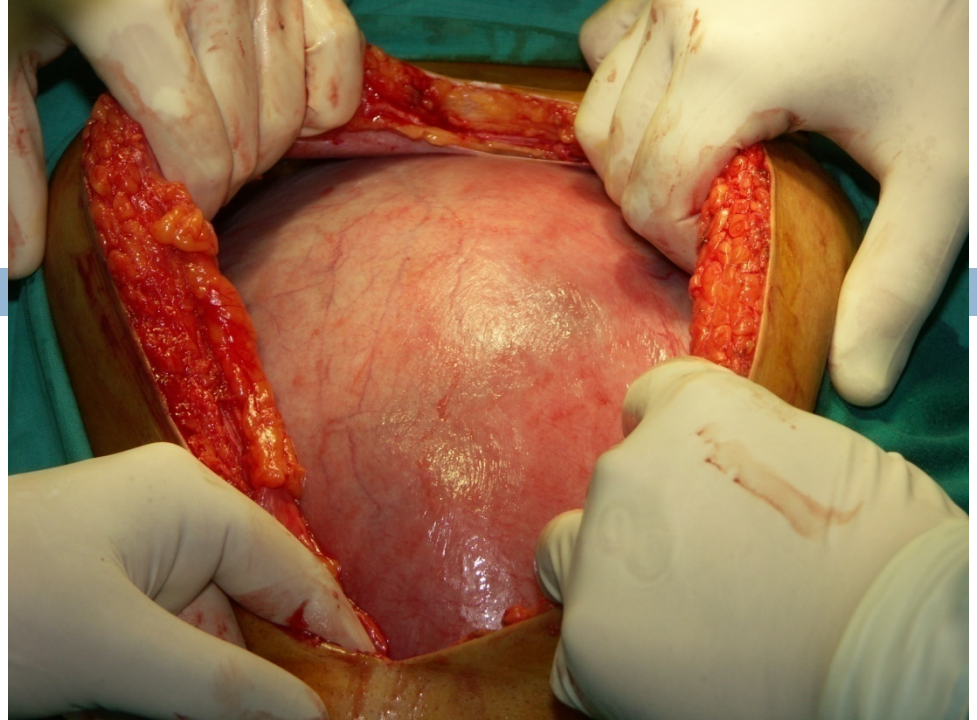
□ General anesthesia

Fentanyl 0.1 mg

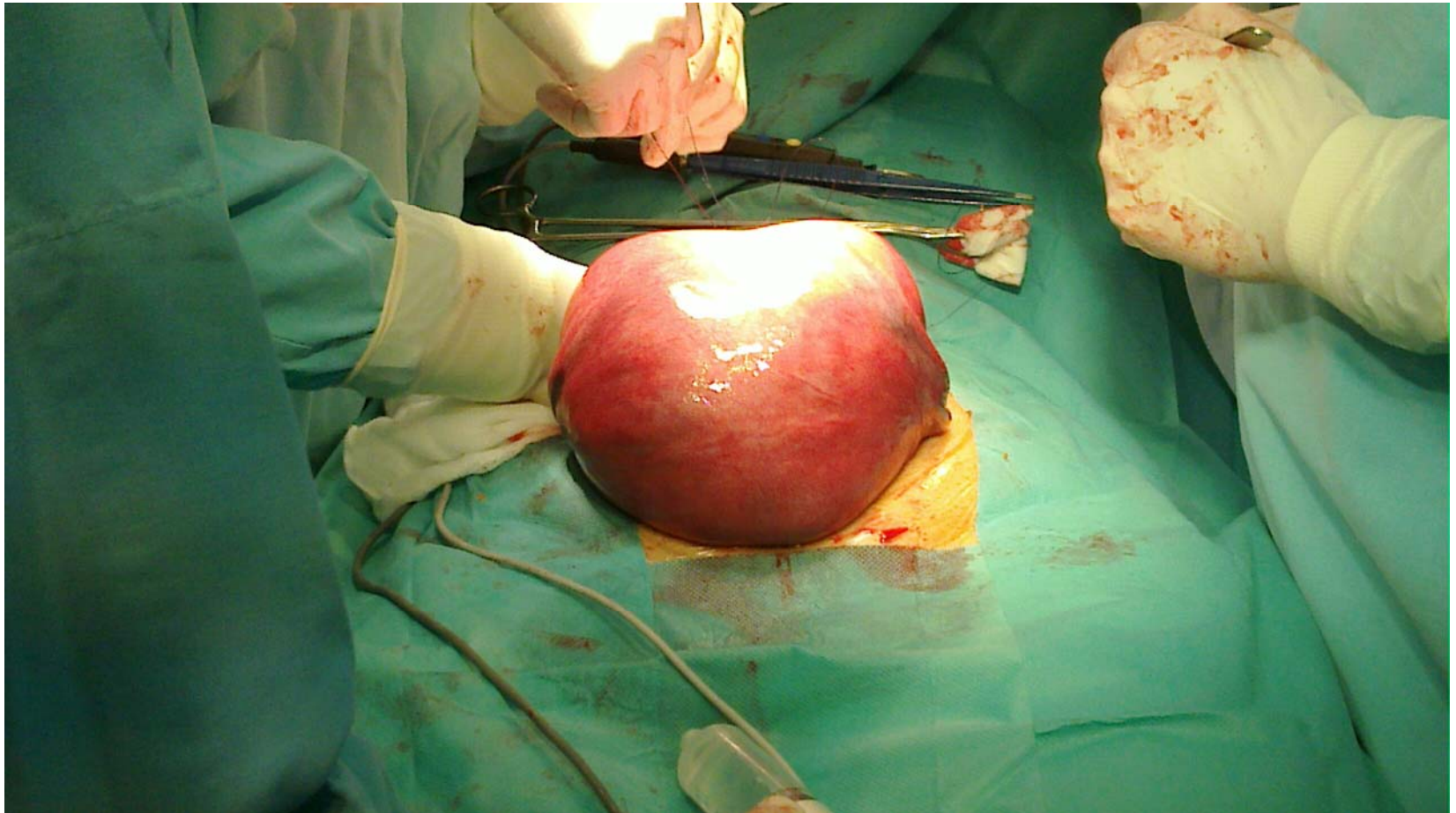
Propofol 1-2 mg/kg, 100 mg Ketamine

Rocuronium 0,5-0,8 mg/kg

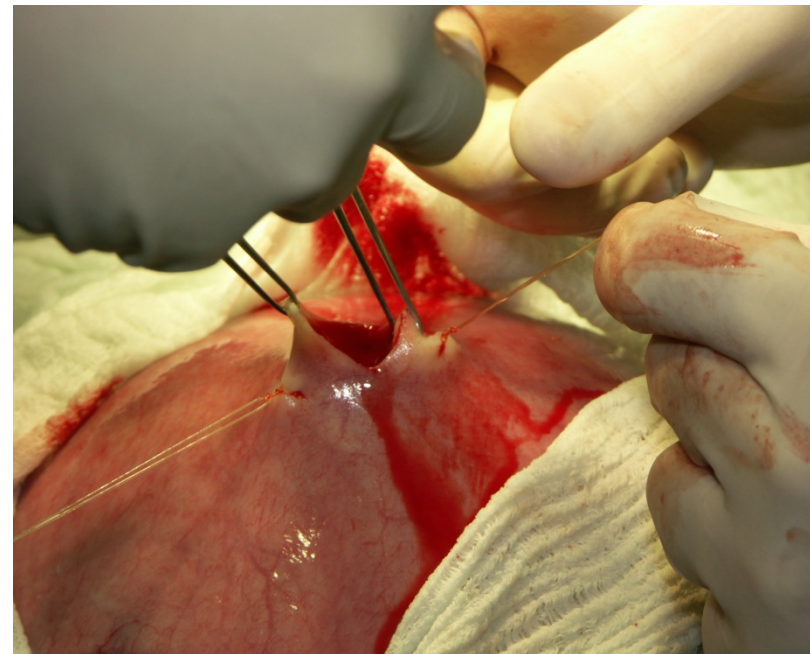
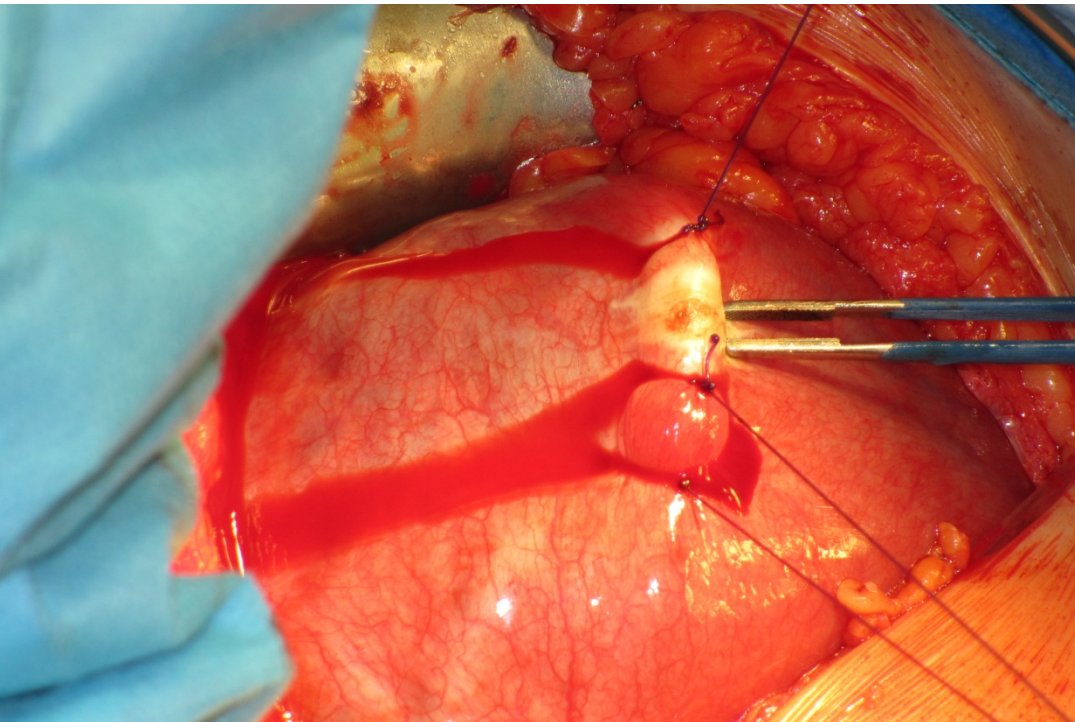
Sevoflurane, Nitrous oxide, Oxygen



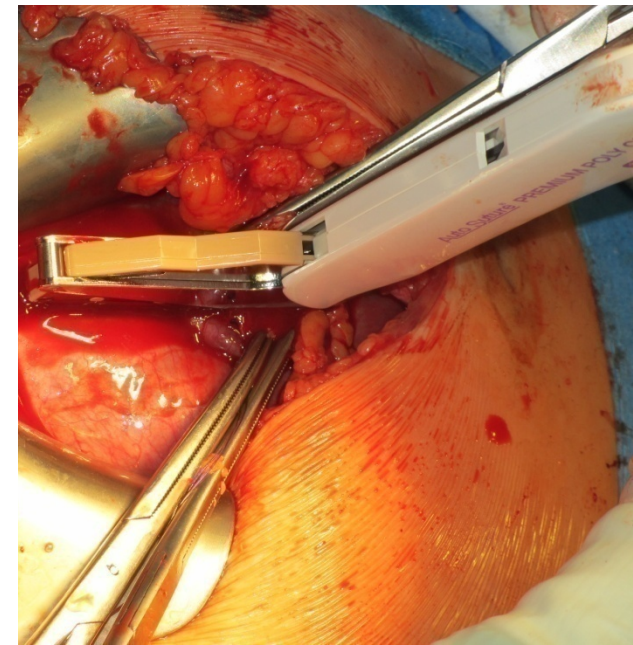
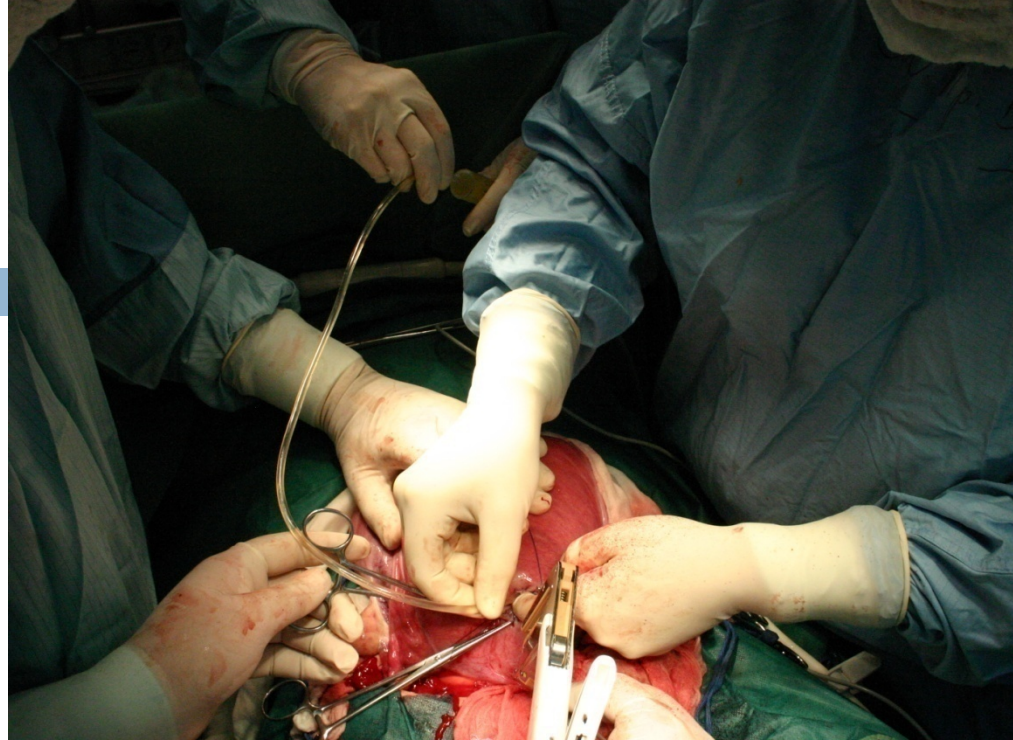
In cases with placenta on anterior wall, the uterine muscle was placed outside peritoneal cavity.



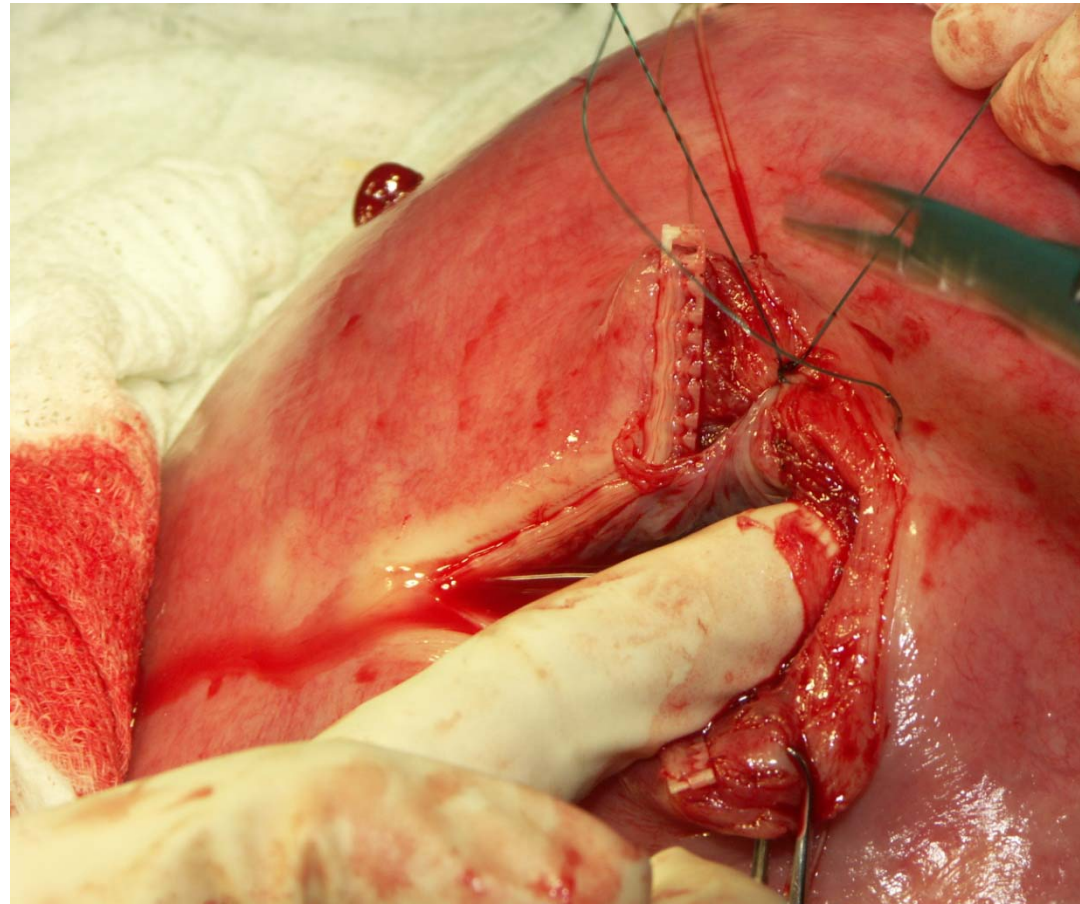
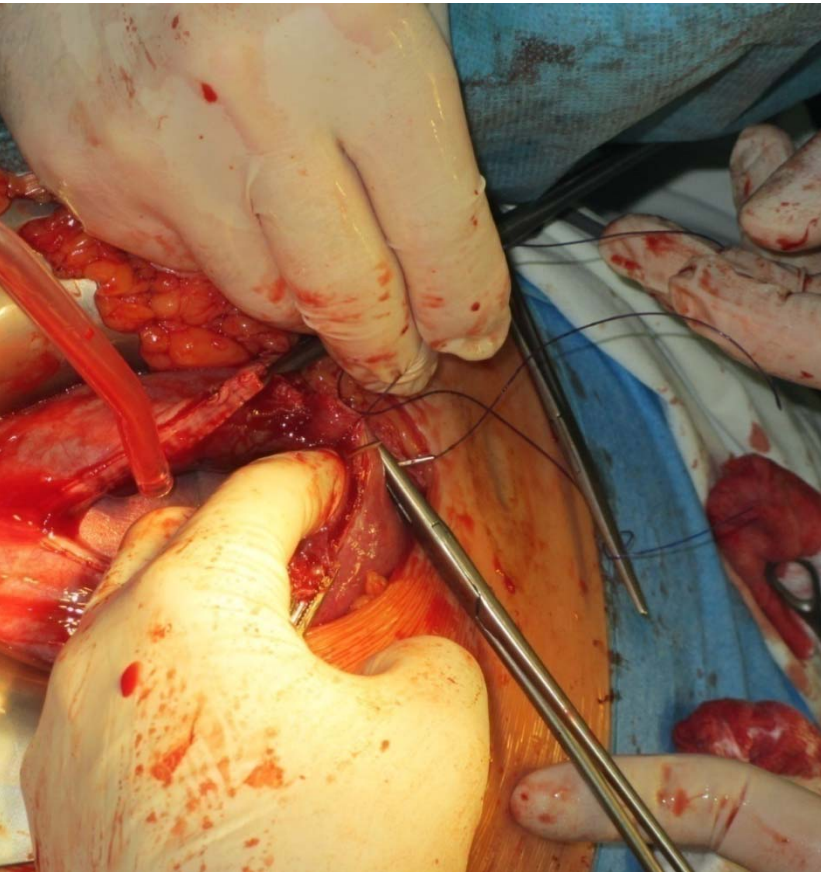
- Incision of the uterine muscle above the MMC.




- the amniotic fluid was evacuated
- the incision was enlarged using one stapler Auto Suture Poly CS™ (Covidien).

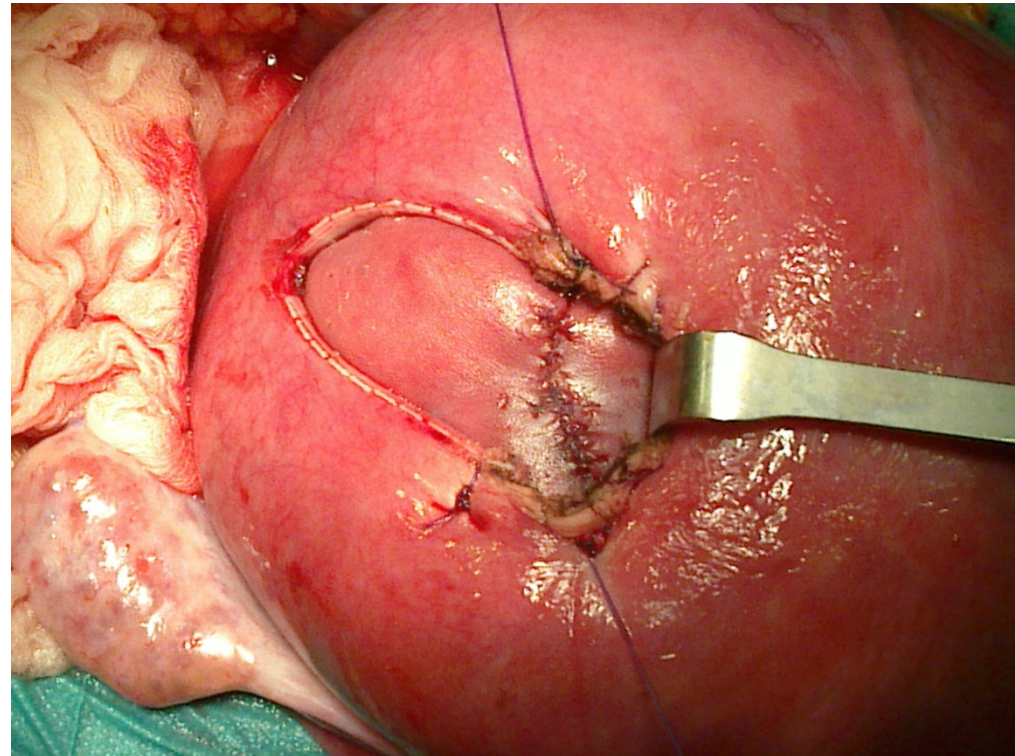
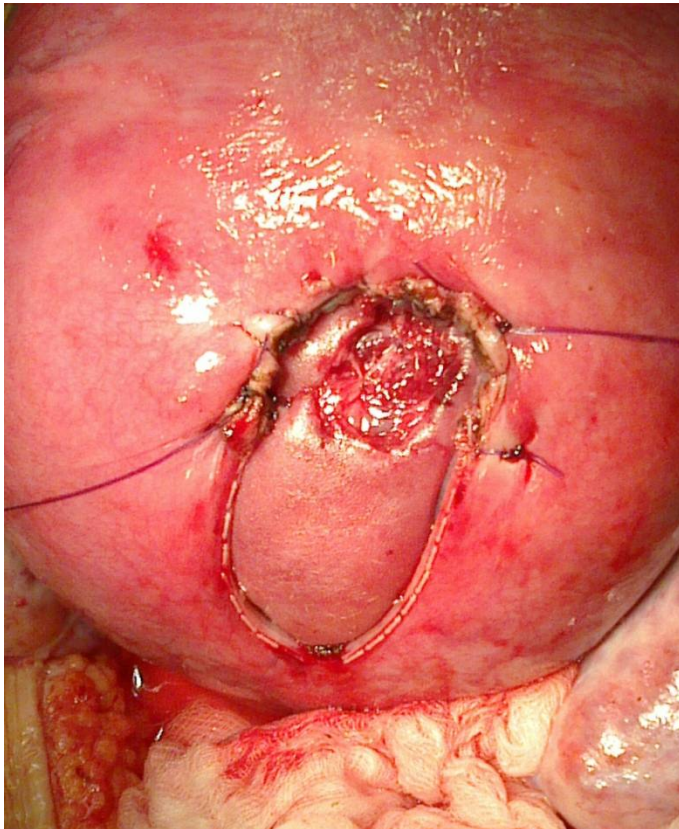



Wound margins were equipped with additional sutures when necessary.



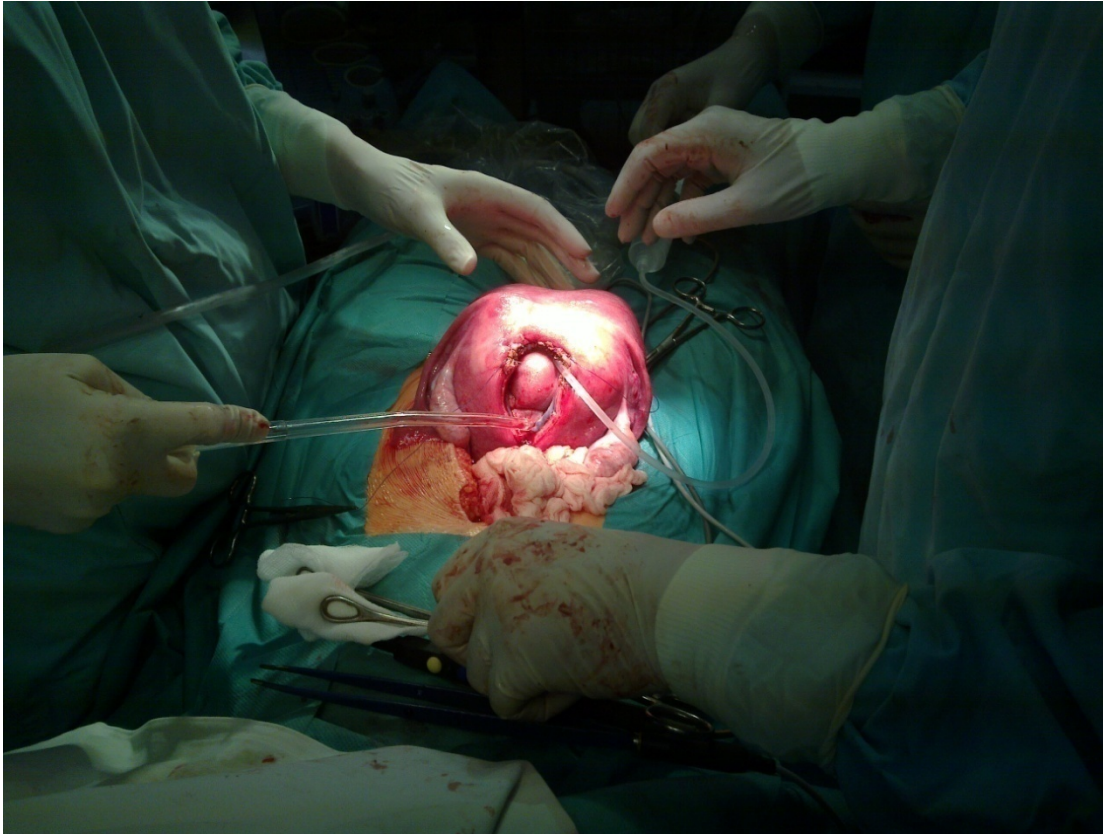
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- As the MMC became visible, an analgetic treatment was administered to the fetus.
 - intramuscular injection of fentanyl (20mg/kg), atropine (20 mg/kg), and vecuronium (0.2 mg/kg) is given by the surgical team.

- Surgical technique of the meningocele repair was performed by pediatric surgeon.



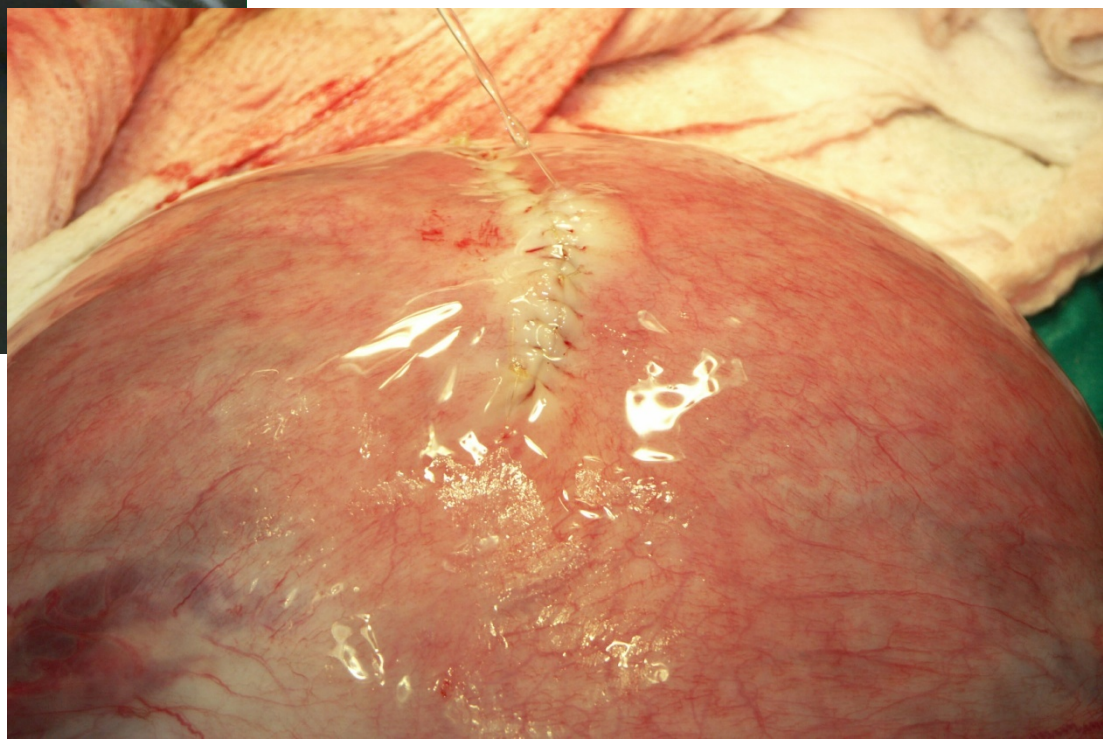
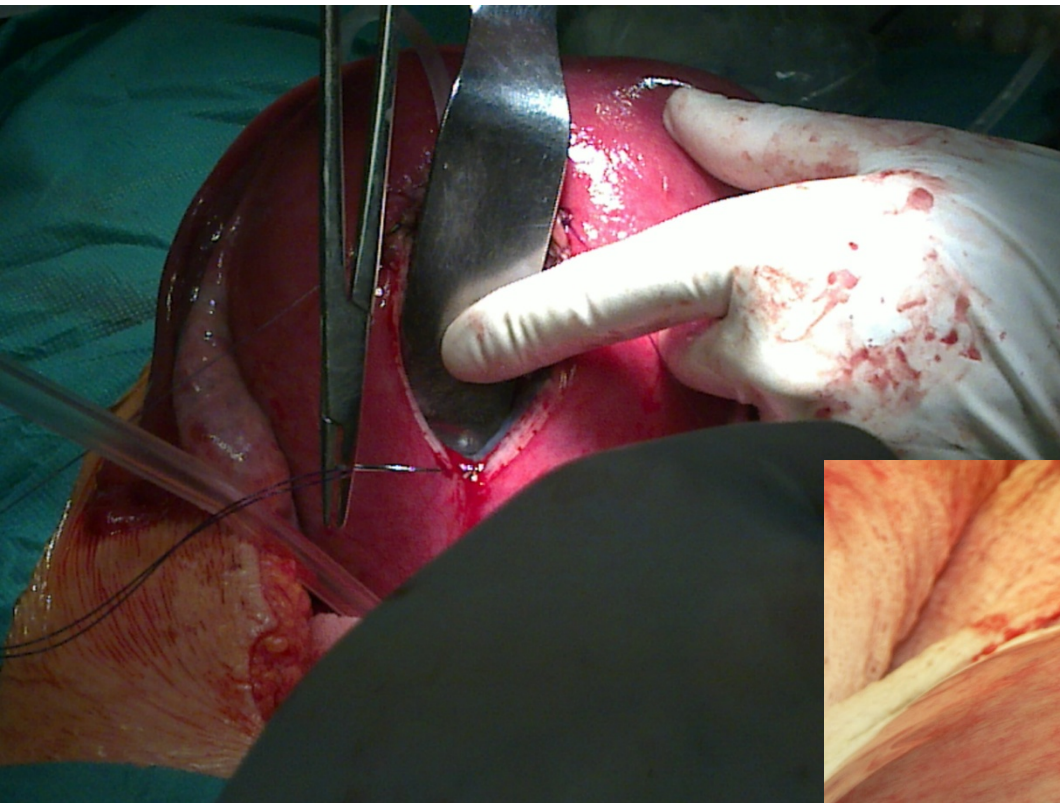
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- During IUMR the hemodynamic condition of the fetus was monitored by Doppler ultrasound (analysis of: FHR, PI indices, and RI of the umbilical artery). A placenta was also assessed.

Supplementation of the amniotic fluid.



Ceftazidime 1.0 g

A 2-layered closure of the uterine muscle



- After IUMR most of the pregnant women stayed at our Center.
- Elective caesarean section was performed in 37 weeks of gestation or earlier when necessary.
- The hysterotomy site after open fetal surgery was evaluated during cesarean section (A completely healed wound was observed in most cases). No stapler dissection.
- In cases of complete wound dehiscence the incision was extended laterally from the inserted stapler.

Main problems during MMC repair

- Uterine muscle contractions

(Magnesium sulfate 2 g iv. at the beginning of the operation and 2 g when suturing the uterus- only when necessary).



Thank you!

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