

CASE REPORT

Spinal Anesthesia in Caesarean Section with Ovarian Cyst Per magna with Meigs Syndrome

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ABSTRACT

Background: The ovarian cyst is the very common cyst intra-abdominal in the ovary. If it need termination, the common procedure is cesarean section then the best anesthesia technique that suitable is spinal anesthesia. The Meigs Syndrome is an uncommon clinical condition, in which benign ovarian tumors are usually accompanied by ascites and pleural effusion. About 1% of ovarian tumors can indicate Meigs syndrome. Meigs Syndrome case have been reported in woman before 30 years old.

Case Illustration: We reported an evaluation of a 29 years old woman, Gestational 1 Partus 3 Abortus 0, 60 kg weight and 165 cm height came to hospital with enlargement of abdomen since 3 months ago. There wasn't history of bleeding and fluid discharged from genital. There's no complaint in urination and defecation. The patient has felt an enlarged abdomen since the age of 7 months of pregnancy during antenatal care to a obstetrician. The patient hemodynamic and vital signs are stable and the pregnancy already in 37-38th week. Based on that the obstetrician decided to terminate the pregnancy, we choose to do spinal anesthesia in the cesarean section because it's easy, common, and best technique for short surgical procedures.

Conclusion: In patient with Ovarian Cysts Per magna with Meigs Syndrome in Pregnancy, we need to understand the risk of complication of ovarian cyst is higher in the prenatal period than after birth. The diagnosis of fetal ovarian cyst should not affect the schedule and method of delivery. The management of Meigs Syndrome in Pregnancy this time we terminate the pregnancy because it's already in 37-38th week, the spinal anesthesia management is nothing different with the normal pregnancy.

Keywords: Spinal Anesthesia; Caesarean Section; Ovarian Cyst; Meigs Syndrome



INTRODUCTION

The ovarian cyst is the very common cyst intra-abdominal in the ovary. According to Yvone Cheng, although ovarian cysts are usually benign and often resolve spontaneously, these masses can cause ovarian torsion (adnexal torsion) with a possible risk of ovarian loss or ovarian function. Since adnexal torsion is higher in the prenatal period, treatment during pregnancy is still controversial. Some studies say decompression in utero through fetal intervention, while other studies say treatment during pregnancy. Postnatal ovarian cyst surgery may be indicated, usually to preserve the ovaries^{1,2}.

The Meigs Syndrome is an uncommon clinical condition, in which benign ovarian tumors are usually accompanied by ascites and pleural effusion. About 1% of ovarian tumors can indicate Meigs syndrome. The same clinical indication can be seen in several metastatic malignancies. Meigs syndrome can be found in 1% of ovarian tumors. Its association with ovarian fibroma is common to be found. Meigs Syndrome case have been reported in woman before age 30, but it's still extremely rare in women under 30 years old. Until today, the etiology remains unclear. Early detection and appropriate

management of Meigs syndrome can provide a good prognostic condition³⁻⁵.

CASE ILLUSTRATION

Evaluation of a 29 years old woman, Gestational 1 Partus 3 Abortus 0, 60 kg weight and 165 cm height came to hospital with enlargement of abdomen since 3 months ago. There wasn't history of bleeding and fluid discharged from genital (-). There's no complaint in urination and defecation. The patient has felt an enlarged abdomen since the age of 7 months of pregnancy during antenatal care to an obstetrician.

The first day of last menstrual period in January 2021, expected delivery date: September 2021, medication history: (-), past medical history: Diabetes Mellitus (-), Hypertension (-). Antenatal Care: Midwifery. We found nothing in history of birth, the first birth is a boy with 3.4 kg with normal labor in hospital 5 years ago, the second birth is a boy with 3.6 kg with normal labor in hospital 2 years ago.

We continued to physical examination and the results show,
Breath/Respiratory: Airway clear;
Respiratory Rate: 22x/min; SpO2 99% room air; Breath Sound: Vesicular;
Additional Sound: Ronchi (-/-), Wheezing (-/-); Mallampati score 1;

Hyo-mental distance >6 cm; Neck movement: clear.

Blood/Cardiovascular : Acral are warm, Red, and Dry; Blood Pressure: 140/85 mmHg; BPM: 95x/min, regular, Throb/Volume: strong/enough; Temperature: 37°C; Heart sound 1-2, murmur (-); gallop (-).

Brain/Consciousness: Compos Mentis, GCS 15 (E4V5M6), isochore

pupil Ocular Dextra Sinistra (ODS) 3mm/3mm, Pupil Reflex (+/+).

Bowel/Gastrointestinal: Asymmetric distension of abdomen, no pain, fundal height uteri already reached 3 fingers width under the xiphoid process, fetal movements (+), Contraction (+), Fetal Heart Rate: 148 x/I, Circumference: 118 cm.



Figure 1 Patient Clinical Condition

In laboratory findings we found Hb 11 gr/dL, HCT 33.6%, Leukocyte $9,470 \times 10^6$, and Platelets 372,000. Coagulation, PT 9.5(10.7), APTT 25.2(24.2), INR 0.9. We also found Urea 12 and Creatinine 0,54 mg/dL. In pregnancy woman, the patient's neck is likely to be short and the chest to be bigger because of the increased body weight, it would be difficult when we do

intubation in this patient. In pregnancy woman, larynx would be narrower because of the edema, we have to prepare ETT 3 size 6, 6.5, and 7. The intervertebral disc would be narrower and we have to mark the site precisely. We continue to caesarean section with cystectomy, Physical Status-American Society of Anesthesiologist are 2, Spinal Anesthesia Technique in Supine

position. We gave the patient 1000cc of crystalloid as preload fluid with large bore because we want to prevent the hypotension because of the spinal anesthesia and maintain the bleeding, we don't want the RBC and hemoglobin dropped too much during the cesarean section cause it could lead to lower oxygen delivery. We continue to put a vital sign monitor (BP, SpO₂, HR). We continue to identify L3 - L4 location of the patient in sitting position and do the aseptic using 10% povidone iodine and 70% alcohol. When we sure we already find the location, we marked it, and we used a 25G spinocaine with the position and the bevel facing right side and gently stabbed through cutis, subcutis, supraspinous ligament, interspinous ligament, flavum ligament, epidural Space, the dura mater, and the subarachnoid space, we did the crosscheck to make it sure it's in the right space by let the CSF liquid spill a little, we also make sure there's no blood in it, we continue insert bupivacaine spinal 0.5% 12.5 mg. Afterwards, return the patient to the supine position (measure blood pressure), adjust the block height to T4 level and monitoring vital sign throughout the duration of the procedure.



Figure 2 Preoperative Hemodynamic



Figure 3 Hemodynamic After Spinal Anesthesia



Figure 4 Hemodynamic During Operation

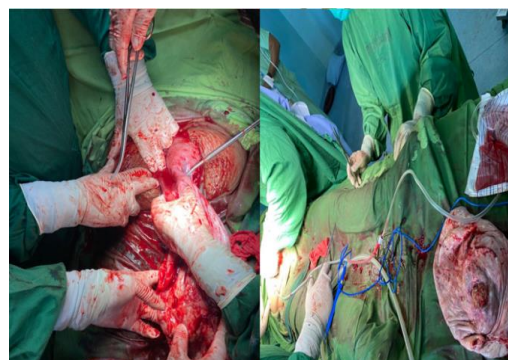


Figure 5 Operation

DISCUSSION

In this case we need to make sure what we should do to maintain the patient and the fetal by discuss with Obstetrician, in this case the obstetrician decide we need to terminate the pregnancy because the pregnancy already in the 37-38th week. We do spinal anesthesia because it is the best technique for short surgical procedures, for more extensive surgical procedures or procedures that can interfere with breathing, general anesthesia is usually preferred. Spinal anesthesia is a frequently performed and easy to learn technique involving the cerebrospinal fluid CSF. Spinal anesthesia is generally used in surgical procedures involving the lower abdomen to the lower extremities, in other words, this procedure is very useful for surgical procedures below the umbilicus. It is very important to explain the anesthetic technique to the patients so they understand that they will experience little or no movement of their lower extremities until the resolution of the block. We also need to understand when we get patients with Meigs Syndrome in Pregnancy we should make sure the hemodynamic and the vital signs are stable, we also need to be careful is there pleural effusion or ascites in the patient that could make complications in

durante, but there's nothing to worry because the principle of spinal anesthesia is the same with other pregnancy women, there's nothing special in the patient with Meigs Syndrome in Pregnancy^{6,7}.

CONCLUSION

Ovarian cysts usually present as cyst intra-abdominal unilateral in the third trimester of pregnancy, possibly due to follicular stimulation of maternal and placental hormones. Although ovarian cysts are usually benign and often resolve spontaneously, these masses can cause ovarian torsion, the most common complication. The risk of complication of ovarian cyst is higher in the prenatal period than after birth. The diagnosis of fetal ovarian cyst should not affect the schedule and method of delivery. If postnatal ovarian cyst surgery may be indicated, it is usually to preserve the ovaries. Simple cysts usually have a better prognosis than complex cysts. The management of Meigs Syndrome in Pregnancy this time we terminate the pregnancy because it's already in 37-38th week, the spinal anesthesia management is nothing different with the normal pregnancy, we just need to watch the hemodynamic and vital signs are stable the we can continue to do the cesarean section.

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