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PREVALENCIES OF OVARIAN PREGNANCY CONFIRMED BY HISTOPATHOLOGICAL EXAMINATION: A RARE CASE

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Abstrak

Kehamilan ovarium merupakan bentuk kehamilan ektopik yang jarang terjadi dengan angka kejadian sekitar 1 dari 2.100 hingga 1 dari 7.000 kehamilan, atau hanya 1–3% dari seluruh kasus ektopik. Meskipun jarang, kondisi ini masih menjadi tantangan diagnostik karena gejala klinisnya mirip dengan kehamilan tuba dan hasil pemeriksaan ultrasonografi sering kali tidak spesifik. Oleh karena itu, diagnosis pasti biasanya ditegakkan saat tindakan pembedahan dan dikonfirmasi melalui pemeriksaan histopatologi. Penelitian ini bertujuan melaporkan prevalensi kehamilan ovarium di RS Persahabatan selama periode Januari 2015 hingga April 2019. Dari 151 kasus kehamilan ektopik, ditemukan tiga kasus kehamilan ovarium dengan prevalensi sebesar 0,01%. Seluruh pasien memerlukan tindakan operasi berupa salpingo-ooforektomi unilateral sesuai kondisi klinis dan hemodinamiknya. Hasil ini menegaskan pentingnya anamnesis yang teliti, perawatan antenatal dini, serta pemeriksaan USG transvaginal trimester pertama untuk deteksi lebih awal. Penatalaksanaan harus disesuaikan dengan stabilitas hemodinamik pasien guna mencegah komplikasi dan mencapai hasil yang optimal.

Kata Kunci: *Kehamilan ovarium, kehamilan ektopik, viabilitas kehamilan ovarium*

Abstract

Ovarian pregnancy is a rare form of ectopic pregnancy with an estimated incidence ranging from 1 in 2,100 to 1 in 7,000 pregnancies, accounting for only 1–3% of all ectopic cases. Despite its rarity, it remains a diagnostic challenge because its clinical presentation closely resembles tubal pregnancy and ultrasound findings are often inconclusive. Therefore, definitive diagnosis is frequently established during surgery and confirmed through histopathological examination. This study aims to report the prevalence of ovarian pregnancy at Persahabatan General Hospital between January 2015 and April 2019. During the study period, 151 cases of ectopic pregnancy were recorded, of which three were confirmed as ovarian pregnancies, resulting in a prevalence of 0.01%. All patients required surgical management with unilateral salpingo-oophorectomy due to their clinical and hemodynamic conditions. The findings highlight the importance of thorough history taking, early antenatal care, and routine first-trimester transvaginal ultrasound to improve early detection. Management decisions should be individualized based on the patient's hemodynamic stability to prevent complications and ensure optimal outcomes.

***Keywords*:** *Ovarian pregnancy, Ectopic pregnancy, Viable ovarian pregnancy*

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PENDAHULUAN

Ovarian pregnancy is a rare event with incidence that estimates between 1 in 2,100 to 1 in 7,000 pregnancies, or 1–3% of all ectopic pregnancies. It still remains a diagnostic challenge. As the ovarian pregnancy clinical presentation is similar to that of tubal one, and an accurate ultrasound diagnosis is someway controversial, the surgical diagnosis is frequently made and confirmed by histopathological examination. We are presenting the data of three cases of variation of haemodynamic correspond to viability of ovarian pregnancy itself. All of cases needed unilateral salpingo-oophrectomy. These clinical scenarios stress on the necessity of starting early antenatal care and having a routine transvaginal first trimester ultrasound. Primary ovarian pregnancy is a rare finding; it was first described by Dr. Saint Monnissey in 1682. Although the explanation of implantation anomalies causing ovarian pregnancy remains unclear, there are various hypotheses such as ovum liberation delay, tunica albuginea thickening, tubal dysfunction and intrauterine contraception devices (IUD). In contrast to women with tubal pregnancies, traditional risk factors such as pelvic inflammatory disease and prior pelvic surgical procedure may not play a role in ovarian pregnancy etiology. Ovarian ectopic pregnancy occurs by fertilization of an ovum retained in the peritoneal cavity leading to implantation on the ovarian surface. Women with ovarian ectopic pregnancies usually present with lower abdominal pain and menstrual irregularities similar to other ectopic conditions.

METODE

To report prevalence of Ovarian pregnancy at Persahabatan General Hospital during Januari 2015 – April 2019. There were 151 cases of ectopic pregnancy during the study period with 3 cases of ovarian pregnancy. By this number, the prevalence of pregnant women with ovarian pregnancy confirmed by histopathological examination in this period study was 0.01 %. The diagnosis of ovarian pregnancy was confirmed intraoperatively and by histopathological examination. All of cases needed unilateral salpingo-oophrectomy according to the haemodynamic condition of the patients.

HASIL DAN PEMBAHASAN

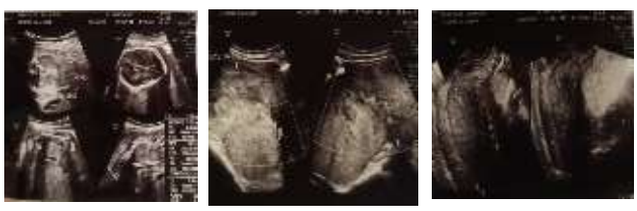
We present 2 cases of Ovarian Pregnancy confirmed by Histopathological examination in our hospital

No	Name	Diagnosis	Procedure	Outcome	PA result
1	Mrs Erna	G1 24-25 wga, singleton live abdominal pregnancy, foetus with multiple congenital anomaly	Laparotomy exploration salphingoovorectomy dextra March 8th 2018	Baby boy with major multiple anomaly AS 1/2 intraoperative bleeding 2500 cc	Ovarian pregnancy
2	Mrs. Nurpangastuti	Acute abdomen due to hemoperitoneum due to suspected ruptured of ectopic pregnancy on G4P2A1 8 wga, mother with Hipovolemic shock grade II, Previous C-section 1x, Anemia (Hb 3,5 gr/dl)	Laparotomy exploration salphingoovorectomy sinistra on May 30th 2018	Intraoperative bleeding 300cc	Ovarian pregnancy

Case I :

Pasien referred by Hermina hospital due to congenital anomaly, patient came with stabile haemodinamic, plan to has fetomaternal Ultrasound examination on Feb 15th 2018

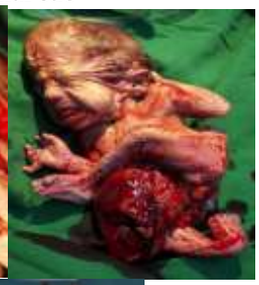
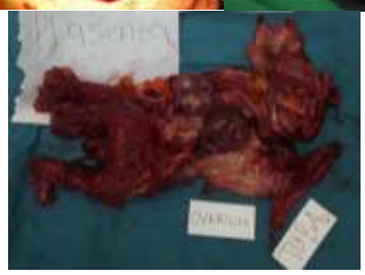
Fetomaternal US exam : anteflexed uteri, with normal size endometrial line + 13mm abdominal pregnancy on right douglasi, with no active movement, biometri correspond to 24 wga, there were defect on foetus at abdomen anterior 17 mm with structur of gut, gaster outside abdomen, with no sacch correspond to gastroschizis. Cranial bone looks irregular, vertebrae looks irregular(scoliosis). Amniotic fluid decreased with single deepest pocket 1, placenta implanted at douglasi pouch, both ovarii cant identified, no sign of acites

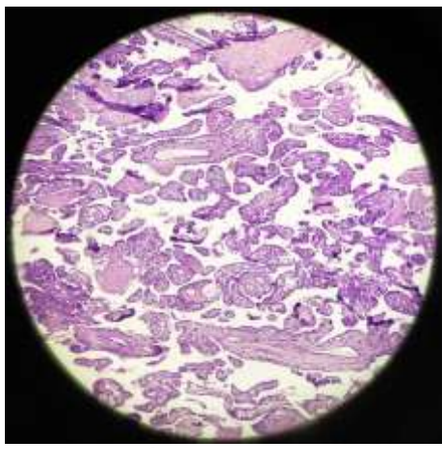


Plan to Elective Laparotomy exploration joint operation with Digestive surgery

Intraoperatively we found right adnexa looks amniotic membrane covered by vascular adneksa and right tube. Perform incision in amnion sacch, foetus spill out, clear amniotic fluid

200cc, born baby boy with scrotum cant identified, with major congenital anomaly(low set ear, dolicocephal, omphalocele, talipes, scoliosis , with Apgar score 1/2. Baby transfer to NICU and operator decided to perform Salphingoovorectomi dextra to evacuate placenta and amnion, because placenta and amnion attached to ovarium and right tube, there were active bleeding from cotheledone that still bleeding after haemostatis, Intraoperative bleeding 2500cc, Mother with Haemoglobin 10,1 g/dl before admition and intraoperatively already get FFP 500 cc and PRC 1200cc Haemoglobin post transfusion 9,6 gr/dl, mother in ICU for 2 days after operation. Women was discharged on day 5 postoperative in a good condition and her serum of human chorionic gonadotropin level was followed in outpatient clinic till became negative on 4th week postoperative. Histopathology showed ovarian tissue in the gestational sac

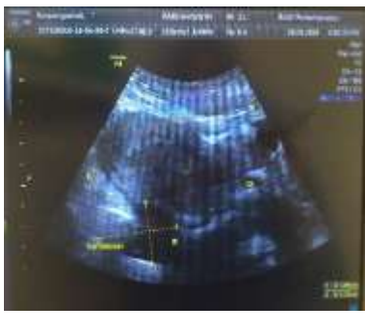




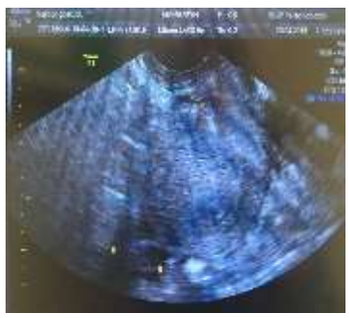


histology of desidua gravidity and villi korialis inside ovari tissue. Zoom in 100x

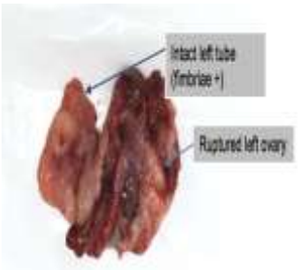
Case II :

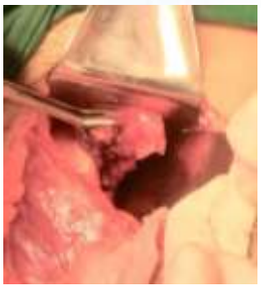
Patient came to our hospital on April 30th 2018 reffered by Yadhika Hospital due to susp Ectopic pregnancy, Patient admitted 8 month of pregnancy, LMP Feb 27th 2018 EDD April 25th 2018 correspond to 8 wga, patient came with compos mentis but complain acute abdomen since 3 hours BA, patient said that she never perform Ultrasound examination, she only know that she was pregnant from pregnancy test positive 2 weeks before, she still work as a teacher until today, and because felt discomfort in right lower abdominal, so she decided go to the hospital to check up her condition. In Yadika hospital they did Laboratorium and Ultrasound examination, and said the pregnancy was ectopic pregnancy and suspected ruptured because patient already anemia with Haemoglobin 5 g/dl, patient sent with ambulance to Persahabatan hospital due to ICU fully occupied in Yadhika. On physical examination found abdominal pain on left lower abdominal and no vaginal bleeding with vaginal examination result was anteflexed uterus, closed ostium, pain on left adnexa, slinger pain (+), Douglas pouch wasn't buldging. Perform Ultrasound examination Uterus anteflexed size 6x4.7x 4.0, No. sign Gestational sacch intrauterine, Left adnexa seen mass size 4cmx 3cm, Hematochele and Free fluid (+), Conclusion : Left Ectopic pregnancy

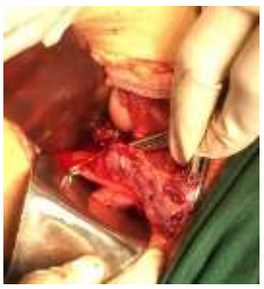


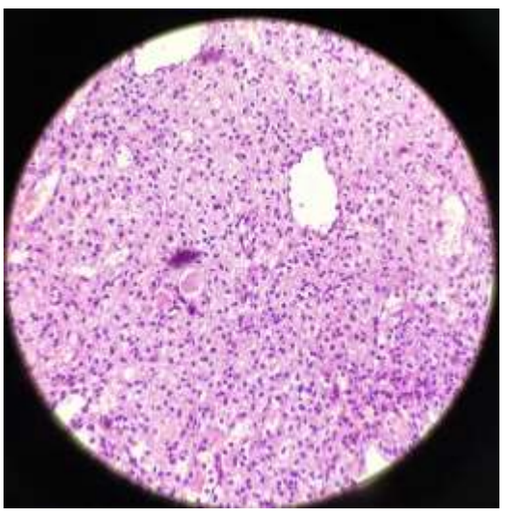


Duty team decide to perform Laparotomy exploration with back up PRC 1000cc and FFP 500 cc to give transfusion to patient before and intraoperatively. Intraoperatively There was blood and blood clot 500 cc evacuated, Right ovary and right tube were normal with Enlarged right ovary 4 cm adhered to posterior uterus and right tube, perform adhesiolysis, on exploration There was rupture on dorsal part of enlarged ovary with active bleeding decided to perform Salphingooovorectomi dextra. Women was observed in the ICU for 2 days to continue get transfusion and weaning extubation, and discharged on day 4 postoperative in a good condition and her serum of human chorionic gonadotropin level was followed in outpatient clinic. Histopathology showed ovarian tissue in the gestational sac.









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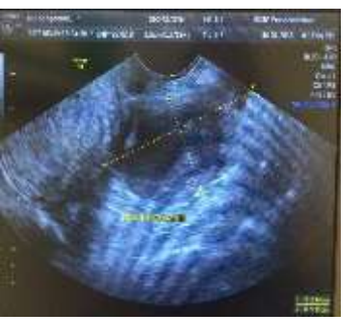
Discussion



Primary ovarian pregnancy is a rare finding; it was first described by Dr. Saint Monnissey in 1682 1.2. Although the explanation of implantation anomalies causing ovarian pregnancy remains unclear, there are various hypotheses such as: ovum liberation delay, tunica albuginea thickening, tubal dysfunction and intrauterine contraception devices (IUD). In contrast to women with tubal pregnancies, traditional risk factors; such as pelvic inflammatory disease and prior pelvic surgical procedure, may not play a role in ovarian pregnancy etiology1.

Ovarian ectopic pregnancy is a rare variant of ectopic pregnancy. It occurs by fertilization of an ovum retained in the peritoneal cavity leading to implantation on the ovarian surface4,5. Women with ovarian ectopic pregnancies usually present with lower abdominal pain, menstrual irregularities as in other ectopic conditions and corpus luteum cyst. Pelvic inflammatory disease does not have an effect on ovarian ectopic pregnancy like it does on tubal pregnancy4,5. IUDs are thought to be a main factor in ovarian ectopic pregnancy cases according to the majority of studies. It is believed that IUDs trigger mild inflammation that disturbs the ciliary activity of the endosalpinx and leads to ovum transport delay and ectopic implantation

TVS use has resulted in a more frequent diagnosis of unruptured ovarian pregnancies. Sonographically, an internal anechoic area is surrounded by a wide echogenic ring, which in turn is surrounded by ovarian cortex1. The diagnosis may not be made until surgery as many cases are presumed tubal ectopic pregnancy. Moreover, at surgery, an early ovarian pregnancy may be considered to be a hemorrhagic corpus luteum cyst or a bleeding corpus luteum1. Management for ovarian pregnancies has been surgical. Small lesions have been managed by ovarian wedge resection or cystectomy, whereas larger lesions require oophorectomy. Finally, systemic or locally injected methotrexate has been used successfully to treat small unruptured ovarian pregnancies1. With conservative surgery or medical management, β-hCG levels should be monitored to exclude remnant trophoblast.1

One from two our cases presented with non-specific symptoms like lower abdominal pain on right region with no vaginal bleeding. Their general examination after positive pregnancy test revealed hemodynamic instability with high shock index, so the initial diagnosis was disturbed ectopic pregnancy. Diagnosis is usually made using the Spiegelberg criteria by Otto Spiegelberg2,3 which include: the gestational sac location is in the region of the ovary, the ectopic pregnancy is attached to the uterus by the ovarian ligament, histological proof that ovarian tissue is in the gestational sac wall and intact fallopian tube on the involved side.

One cases tell us about possibility ovarian pregnancy to still grew up until 25 wga without any classic complain like state above. This patient only refer from other hospital to confirmation about congenital anomaly foetus and perform routinely antenatal care and Ultrasound examination 2x in second trimester of her pregnancy before the admission, from this case we can conclude that unruptured ectopic pregnancy will not showed any clinical manifestation to the patient.

SIMPULAN

Primary ovarian pregnancy is a rare finding. History taking about last menstrual period important before we ask and perform other evaluation, Ultrasound examination just conclude ectopic pregnancy but for the diagnosis will decide

intraoperatively and after histopathology examination result came out. And for management is depand on haemodinamics of the patient itself.

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