

A CASE OF OVARIAN DECIDUOSIS IN PREGNANCY

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Ectopic decidua (deciduosis) has been discovered in variable organs during pregnancy. Ovarian deciduosis, however, is a less frequent event during pregnancy. Ectopic decidua is a physiological phenomenon of pregnancy and arises from a progesterone-induced metaplasia of subserosal stromal cells. As we experienced a case of 21 weeks gestation who was diagnosed with ovarian deciduosis that was suspicious for ovarian malignant tumor, we present it with a brief review of literature.

Keywords: Decidua; Ovarian cyst; Pregnancy

The occurrence of ectopic decidua (deciduosis) has been observed most often in the cervix and appendix [1]. It has been established in approximately 90% of patients who have undergone laparotomy during pregnancy [2]. Ovarian deciduosis, however, is a less frequent in pregnancy. Ectopics decidua is a physiological phenomenon of pregnancy and arises from a progesterone-induced metaplasia of subserosal stromal cells [2,3]. We experienced an unusual case of ovarian deciduosis found at 21 weeks gestation in a primigravida with features of ovarian cyst.

Case Report

A 32-year-old woman, gravida 1, para 0, abortus 0 was referred to our institute because of an accidentally detected left ovarian cyst at 21 weeks gestation. She had no significant medical or gynecological history before. On admission, transvaginal ultrasound scan showed 10.9 × 3.9 cm sized heterogenous cystic mass with solid portion. The peritoneal cavity was filled with small amount of free fluid. Doppler ultrasonogram image of the mass shows vascularization with pulsatility, a finding that is suggestive of a malignant mass (Fig. 1) [4,5]. The magnetic resonance imaging also showed 10 × 7 × 4.8 cm sized mass lesion consisted of multicystic component and large amount of solid component, mainly along the cyst wall suggestive of left ovarian tumor, borderline to malignancy (Fig. 2) [4,5].

As the result of the imaging studies was suspicious for malignancy, we thoroughly explained the natural history, prognosis of disease, available treatment methods, and their possible risks and

discussed with the patient and her family. At last, they decided to conserve pregnancy. An exploratory laparotomy was planned at 21 weeks gestation. Through a midline incision, laparotomy was performed in the supine position. Intraoperative findings revealed about 12 × 6 × 8 cm sized multiloculated mass on the left ovary, with mixed serous and solid portion. The tubes and uterus were grossly normal. The left salpingo-oophorectomy was done. A piece of ovarian tissue was taken for histopathological examination. Frozen sections of the mass revealed a benign cyst that might be a mucinous cystadenoma. The surgery has been completed successfully. Postoperatively patient was treated with antibiotics and tocolytics. After uneventful recovery she was discharged on 11st postoperative day with ongoing pregnancy. The rest of the pregnancy was unremarkable. At 40 weeks gestation an uneventful vaginal delivery resulted in a 3,440 g normal male baby with Apgar of 7/10 and 8/10. She was doing well at the 6 month follow-

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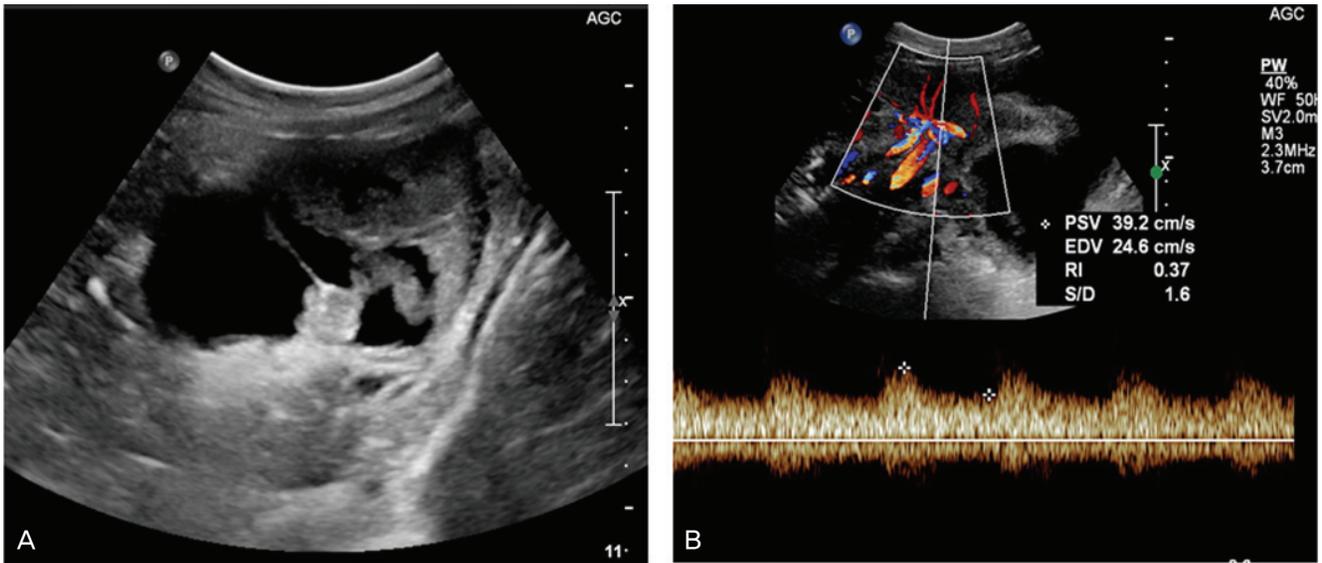


Fig. 1. (A) Transvaginal ultrasonogram image shows a 10.9×3.9 cm sized heterogenous cystic mass with 6.6×3.5 cm, 2.5×1.4 cm and 1.8×1.4 cm of solid portion on left adnexa. (B) Doppler ultrasonogram image of the mass shows vascularization with pulsatility, a finding that is suggestive of a malignant mass (resistance index [RI], RI=0.37). PSV, peak systolic velocity; EDV, end-diastolic velocity; S/D, systolic:diastolic ratio.

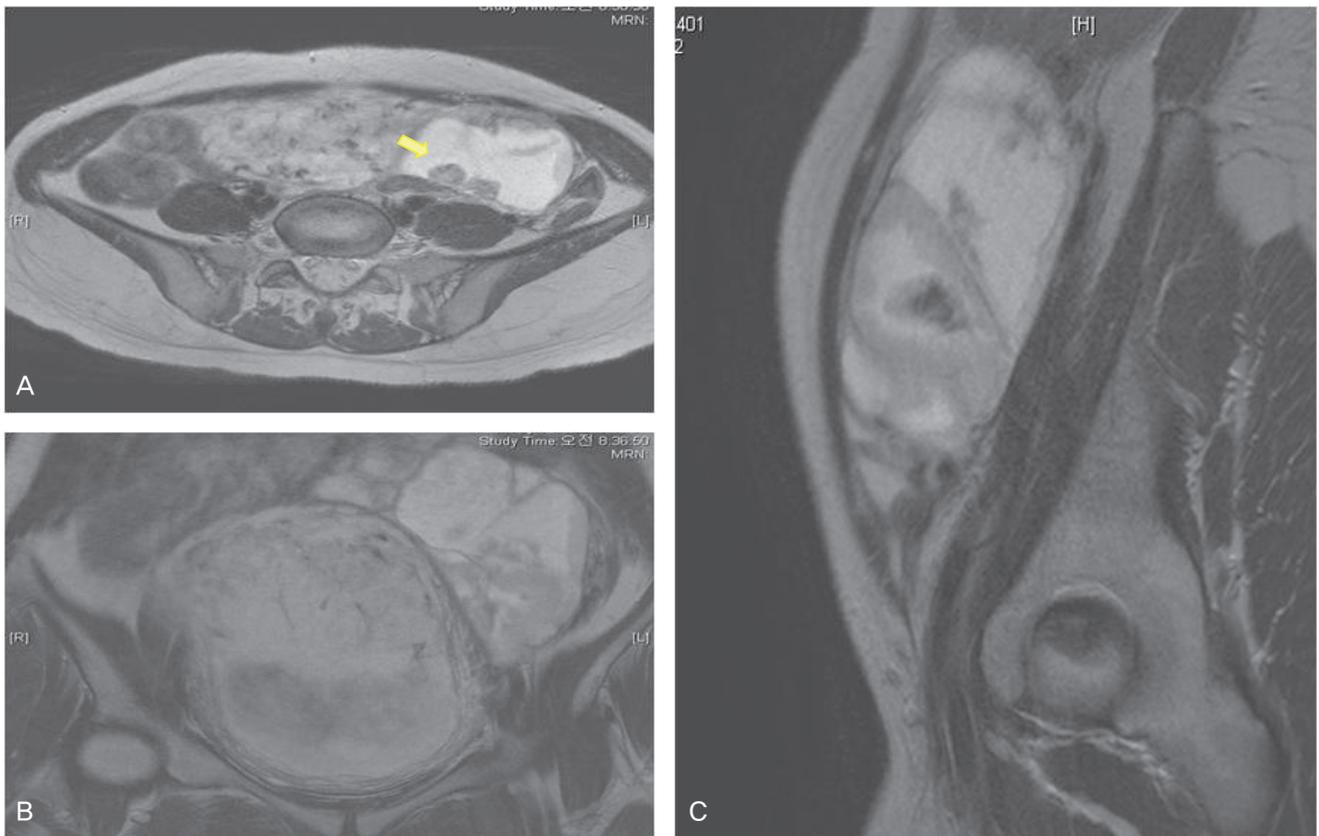


Fig. 2. Axial T2-weighted (A), coronal 2-weighted (B) and sagittal T2-weighted (C) images demonstrate late 2nd trimester pregnant state and about 10×7×4.8 cm sized mass at left adnexa. The solid component along the cyst wall shows intermediate to high signal intensity on T2-weighted images (T2WI). The nodule (arrow) with low signal intensity on T2WI is possibility of paramagnetic component such as hemosiderin. Twenty-one gestational week sized fetus is noted in (C).

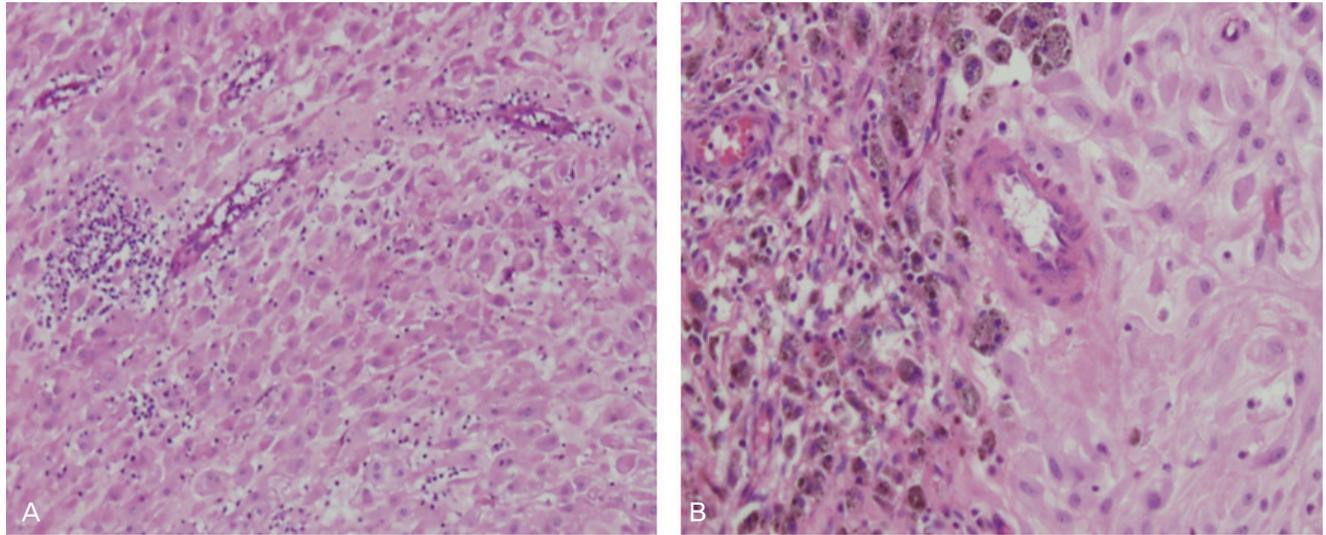


Fig. 3. Histologic findings: ovary revealed a pinkish tan colored edematous stroma (A, H&E; $\times 40$), decidualosis with hemosiderin laden macrophage (B, H&E; $\times 100$).

up after delivery.

1. Pathological findings

On microscopic examination, nest of epithelioid cells in small islands were seen. These cells were large with abundant granular cytoplasm in the specimen from the ovary. These cells were identified as decidual cells. The ovarian cyst was reported as ovarian decidualosis in permanent pathologic examination (Fig. 3).

Discussion

Decidual reaction is a well-documented physiological phenomenon of pregnancy which arises from a progesterone-induced metaplasia of subserosal stromal cells [3]. With increasing duration of pregnancy, there is vacuolar degeneration and fragmentation of the decidual cells as a manifestation of regressive changes. The involution of the decidual cells takes place in four to six weeks post partum [6]. In the absence of pregnancy, it has been considered that stimulation of appropriate cells by progesterone and progesterone-like substances from the corpus luteum or the adrenal cortex causes ectopic decidual formations [7,8]. It has been observed most often in the cervix and appendix [1,3]. Gross ovarian decidualosis is a rare lesion. The intraoperative appearance suggests mucinous cystadenoma.

Decidualosis is an incidental finding that has not been associated with clinical symptoms [3,9], however, rare life-threatening events

have been reported [10]. Decidualosis is usually an incidental microscopic finding, detected in biopsies taken during caesarian sections, postpartum tubal ligations, appendectomies and in-tubal pregnancies [1]. The decidual cells on microscopy appear large with abundant cytoplasm and a bland nucleus.

We experienced an unusual case of ovarian decidualosis in a primigravida that was suspicious for ovarian malignant tumor. Though a rare event, it should be considered as a differential diagnosis in cases presenting as ovarian malignant tumor during pregnancy.

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임신 중 발견된 ovarian deciduosis 1예

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이소성 탈락막(ectopic decida)은 자궁 이외의 부위에 발생하는 것으로 특히 난소의 이소성 탈락막은 드문 질환이다. 이는 임신 중 난소호르몬과 태반의 호르몬, 그중에서도 특히 황체호르몬(progesterone)의 영향으로 변형된 자궁내막의 기질세포(stroma cell)로 구성된다. 우리는 임신 21주에 좌측 난소 낭종의 크기 증가를 주소로 내원한 임신부에서 개복수술 후 조직학적으로 이소성 탈락막의 존재 여부를 확인한 1예를 경험하였기에 간단한 문헌 고찰과 함께 보고하는 바이다.

중심단어: 이소성 탈락막, 난소 낭종, 임신