

Peritoneal Deciduosis: A Case Report

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Abstract

Peritoneal deciduosis is a rare incidental finding on caesarean section. This is a self-limited metaplastic change of submesothelial mesenchymal cells during pregnancy. We report a case of diffuse peritoneal ectopic decidual reaction discovered during caesarean section as pale whitish nodules simulating tubercles. Histology showed omentum studded with nodular groups of decidual cells with transition to spindle cells resembling myofibroblasts.

Key Words

Decidua, Pregnancy, Peritoneal, Deciduosis

Introduction

Ectopic decidua has been commonly observed in pregnant women in the ovaries, uterus and cervix. However, the presence of gross nodules within peritoneal cavity and omentum (deciduosis) is a rare incidental finding on caesarean section (1). This is considered to be a metaplastic process of submesothelial mesenchymal cells related to progesterone. It is a benign self-limited condition but occasionally can present with haemorrhage, abdominal pain, dystocia, irritable bowel syndrome and can mimic appendicitis. Peritoneal deciduosis can be confused with carcinomatosis or granulomas and can cause distress during a naturally stressful period of new parenthood. Biopsy of the lesions solves the dilemma. We report here a case of peritoneal deciduosis in a 25 year old asymptomatic woman discovered during caesarean section which raised suspicion of tubercular granulomas.

Case Report

A 25 year old female, G2P1, admitted in SMGS hospital, Govt. Medical College Jammu as full term pregnancy in labour, underwent caesarean under spinal anaesthesia for imminent fetal distress and delivered a healthy male baby. Here antenatal period in the both the pregnancies was uneventful. During surgery, the surgeon noticed diffuse

nodularity on anterior and posterior surface of uterus, cervix, external surfaces of fallopian tubes, uterine ligaments and omentum. The ovaries were normal. On the omentum, the area covered over by nodularity was about 10 cm in d. The nodules were pale white colored and varied from 2 to 4 mm in size raising suspicion of granulomatous disease; though there was no history of tuberculosis in the past. Malignancy was not suspected keeping in view young age of the woman. Surgical biopsy of the omentum was taken and sent for histopathology. The postpartum period was normal and she was discharged on 7th day.

Pathological Findings: The omental biopsy consisted of a piece of omentum 3x2 cm, yellow brown, firm with congested areas. It showed greyish nodularity varying from 2 to 4 mm nodules (*Fig 1*). Microscopic examination of H&E stained paraffin sections showed the omentum studded with nodular collections of cells with abundant granular eosinophilic cytoplasm and nuclei with open chromatin and inconspicuous nucleoli resembling decidual cells (*Fig 2*). The nodules were vascular with sprinkling of lymphocytes. Some of the nodules were confluent. Decidual cells in part transforming to spindle cells were present. Some of the cellular nodules were predominantly spindle shaped resembling myofibroblasts (*Fig 3*).

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Fig 1. Omentum Showing Diffuse Nodularity

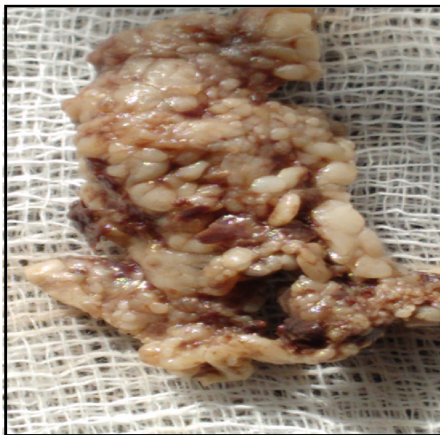


Fig 2. Shows Subperitoneal Nodular Groups of Epithelioid Decidual Cells in Omentum (H&E X 100)

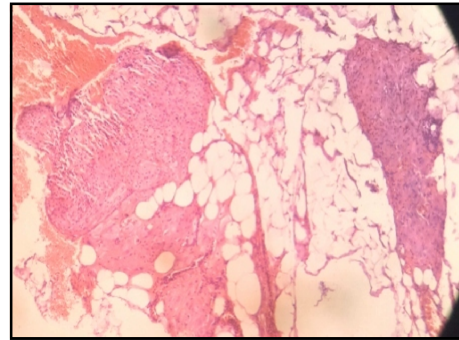
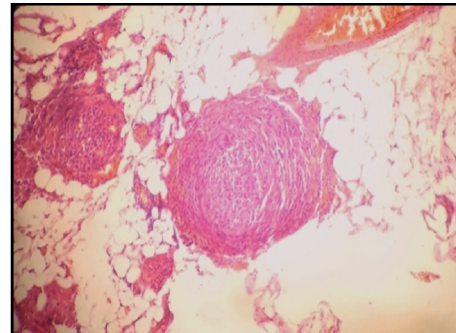


Fig 3. Shows Cellular Nodules Predominantly Composed of Spindled Cells



Discussion

Gross peritoneal deciduosis is a rare lesion. It can involve ovaries, uterus, pelvis, omentum (2) and intestines. The surgeon can mistake the lesion for carcinomatosis and granulomas (3,4,5). A few case reports of gross peritoneal deciduosis have been reported in Indian literature. Shukla *et al* (4) reported a series of three cases of this condition in young pregnant women with involvement of omentum and suspected the nodules to be tubercular granulomas. In the present case, the obstetrician while doing caesarean section noted wide spread nodules and suspected it to be tuberculous granulomas. Carcinomatosis was not considered because of young age of the woman. Histology is important for diagnosis. The differential diagnosis of peritoneal deciduosis includes deciduoid mesothelioma, metastatic carcinoma and metastatic melanoma (6). No cellular atypia or mitotic activity was present in our case. Ectopic decidual change is thought to be due to metaplasia of submesothelial mesenchymal cells due to stimulation by progesterone or progesterone like substances from corpus luteum or the adrenal cortex. The lesion involutes 4 to 6 weeks postpartum. Occasionally the condition is associated with intraperitoneal haemorrhage, dystocia (3), irritable bowel syndrome (7), subacute intestinal obstruction and appendicitis.

Spindle cells probably derived from submesothelial mesenchymal cells may be admixed (1). Decidual cell and cells transitional in form between muscle and decidual cells may be found in nodules (2) in pregnant women as observed in the present case. This finding has not been described in any of the case reports from India.

Conclusion

Gross deciduosis peritonei is a rare benign self-limited metaplastic condition of peritoneum incidentally discovered during caesarean section and it can raise suspicion of tubercles and carcinomatosis. Histology is important for diagnosis.

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