

# Lutein Cyst: Benign Disorder Masquerading As An Ovarian Neoplasm

Dr.S.Vaishali

Dr.A.Padma

Pondicherry Institute Of Medical Sciences,Puducherry

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## **Abstract:**

*Hyperreaction luteinalis is most often bilateral and found incidentally at the time of ovarian cystectomy.. There are multiple benign ovarian lesions including hyperreactio luteinalis that can mimic ovarian neoplasms. However, HL may presents as an abdominal mass or acute abdomen. Hyperreactio luteinalis (HL) refers to moderate to marked cystic enlargement of the ovaries due to multiple benign theca lutein .The cause of this condition is unknown, but is believed to be related to elevated levels of, or abnormal ovarian response to, human chorionic and pituitary gonadotropins. HL is often associated with high maternal serum levels of  $\beta$ -HCG and hyperandrogenic state. The diagnosis was often made incidentally with extra-ovarian symptoms including maternal virilization. HL can occur during spontaneous pregnancy although commonly seen in patients with high serum  $\beta$ -HCG levels similarly to gestational trophoblastic disease, multiple pregnancies,hydrops fetalis and after fertility treatment*

*We report case of a 26 years old lady, bilateral ovarian cyst with secondary infertility presented with chief complaints of abdominal distension for 12 months gradually increasing in size and complaints of lower abdominal pain on and off. Ultrasonography (USG) showed large abdominopelvic cystic lesion measuring 26\*22\*21 cm with multiple thick septations (max. Thickness 4.9 mm ) extending superiorly upto epigastric region . It showed multiple thick septations with vascularity pointing towards malignancy. MRI- two large cyst abdominopelvic in location with upper level extending upto subhepatic and subsplenic location cyst fluid - ? mucinous neoplasm. CA-125 was elevated to 174.7 U/ml ,B HcG- <0.100mIU/ml. Laparotomy was undertaken. Intraoperatively, bilateral huge, congested, bosselated, multicystic ovarian masses were present which replaced normal ovaries and appeared malignant. Bilateral ovarian cyst aspiration was done and partial right cystectomywas done. Cystic aspiration of 7800 ml. Specimens received for histopathological examination showed hyalinised thick collagenous undulating cyst wall noted lined by multiple layers of lutein cyst. Cells- large, polygonal with abundant pale esinophilic to granular cytoplasm and have small vacuoles, small capillaries are noted along with hemorrhage in lining and in cyst wall – suggestive of lutein cyst. On microscopic examination diagnosis of Hyperreactio luteinalis, bilateral ovarian masses were made.*

*HL can be misinterpreted on USG or laparotomy as ovarian malignancy resulting in unnecessary surgical intervention. . A conservative approach is indicated with wedge biopsy and frozen section diagnosis. Oophorectomy is necessary only to remove infarcted tissue or to control hemorrhage.*

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