CT IMAGING FEATURES OF PRIMARY PERITONEAL TUMORS
WITH PATHOLOGICAL CORRELATION

DR RASHMI CHAND, DR SAUGATA SEN AND DR DIVYA MIDHA- TATA MEDICAL CENTER, KOLKATA, INDIA

The purpose of the exhibit is to review the CT imaging patterns of primary peritoneal tumors and correlate with the pathological findings. Primary peritoneal tumors are defined as tumors with primary manifestation in the peritoneum in the absence of a visceral site of origin .The peritoneum is a thin, translucent serosal membrane of mesodermal origin. They arise from Mesothelial , Sub mesothelia , Mesenchymal and Uncommitted stem cells.

Based on the proposed histogenesis, they are classified into :1. Mesothelial 2. Epithelial 3. Smooth muscle 4. Uncertain origin groups
MESOTHELIAL ORIGIN 1: Peritoneal malignant mesothelioma- Diffuse and localized 2. Cystic mesothelioma3. Papillary 4. Adenomatoid

Diffuse malignant Mesothelioma with multiple serosal deposits.

Diffuse Mesothelioma

Localised Mesothelioma

Invasion of GB serosa

EPITHELIAL ORIGIN – 1. Primary peritoneal serous carcinoma 2. Primary Peritoneal serous borderline tumor

Primary Peritoneal Serous Carcinoma

Normal Ovaries

Normal Serosa of ovaries

SMOOTH MUSCLE TUMOR – 1 Leiomyomatosis peritonealis disseminate (LPD)

LPD - Multiple Enhancing deposits throughout peritoneum and Pelvis with Ascites

Fascicles of benign smooth muscle cells

TUMORS OF UNKNOWN ORIGIN – 1. Desmoplastic small round cell tumor (DSRC) 2. Solitary fibrous tumor (SFT)

DSRC with peritoneal deposits

DSRC with small round cells

SFT with degeneration

SFT with spindle cells & Collagen

CONCLUSION : Imaging appearances of primary peritoneal tumors overlap yet are distinctly different clinically. Hence differentiating from metastatic disease is important for appropriate management.