

Answers to Medical Quiz

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A1. These CT images demonstrate low density material through out the abdominal cavity (Fig.1) extending into the paraumbilical hernia (Fig.2), resembling ascitis. This material has a higher density than water, causing mass effect on adjacent organs, displacing bowel. Scalloping of the liver edge also is present (Fig.3). Areas of calcification are evident within the peritoneal cavity. The appendix is distended with the same material in the abdominal cavity and calcification is noted in its wall (Fig.2 & 4). Ultrasound image shows hypoechoic multiloculated collections in the abdominal cavity. The appendix is distended with multiloculated fluid and calcification in the wall is seen (Fig.4).

Ultrasound image shows hypoechoic multiloculated collections in the abdominal cavity. The appendix is distended with multiloculated fluid and calcification in the wall is seen (Fig.4).

A2. Pseudomyxoma Peritoni. Pseudomyxoma peritoni is the presence of gelatinous or mucinous material in the peritoneal cavity. It is produced by the rupture of mucin-producing neoplasm in to the peritoneal cavity. It can be either a malignant process, such as a mucinous adenocarcinoma, or a benign process, such as a mucocele. Once the tumour ruptures, it continues to produce mucin within the peritoneum, and the process tends to be progressive whether it is the result of a benign or a malignant cause¹.

In women by far the most common cause of pseudomyxoma peritoni is mucinous cystadenocarcinoma of the ovary. In men the usual origin of the process is an appendiceal tumour, such as a mucocele of the appendix or a mucinous cystadenocarcinoma.

Mucinous cystic tumours of the pancreas also may cause this condition. Mucinous tumours of the stomach, intestines, or bile ducts are even more rare. In this patient the scalloping of the liver and the calcification favour the diagnosis of a malignant mucinous process due to an appendiceal tumour.

The classic CT appearance is multiple loculated intraperitoneal fluid collections, slightly above water density, which cause mass effect on adjacent organs, displacing bowel and indenting the contours of the liver and spleen. Septations within the fluid are frequently thickened or calcified², these septations are better seen on ultrasound.

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Treatment is typically supportive because the material cannot be successfully removed surgically. The remaining cells within the peritoneum will continue to produce the material.

REFERENCES

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2. Putman CE, Ravin CE. *Textbook of Diagnostic Imaging*. W.B. Saunders Company, 1994:2092-93.