

Case	(065) Benign multicystic peritoneal mesothelioma: cause of a cecal volvulus?
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CASE PRESENTATION

56-year-old patient presented to the emergency department with 24-hour history of acute abdominal pain, nausea and no defecation. Abdominal examination revealed a painful tumour on the lower part of the abdomen. Abdominal X-ray showed an air-distended large bowel in the central and left lower quadrant of the abdomen.

CECT (venous phase) showed a loop-type cecal volvulus, involving the terminal ileum and the ascending colon, showing the two limbs of the looped obstruction gradually tapering at the site of the torsion (bird beak sign). In the right lower quadrant, the twist of the collapsed segments of the ascending colon and the terminal ileum, the mesentery and the associated engorged vessels were also observed (whirl sign). In addition, several hypodense, rounded morphology and different size lesions were observed throughout the abdomen, in contact with the intestine. Emergency surgical intervention confirmed a cecal volvulus.

Vesicles of different sizes were observed in the visceral peritoneum of the entire intestinal package. Ileo-colic resection and latero-lateral anastomosis was performed. Microscopic exploration showed that the vesicle-like lesions had cystic cavities coated by mesothelium without atypia. The final diagnosis was benign multicystic peritoneal mesothelioma (BMPM).

DISCUSSION

Cecal volvulus is the torsion of the cecum around its mesentery. There are 3 types: axial torsion type (the cecum rotates around its long axis and appears in the right lower quadrant), loop-type (the cecum twist and inverts, occupying usually the left upper quadrant) and a variant named "cecal bascule" (the cecum folds anteriorly over the ascending colon without any torsion). Conventional radiography findings include an air-distended loop with haustral fold visualization directed towards the left upper quadrant (coffee-bean shape).

Main MDCT signs include a distended cecum located in the left upper quadrant, bird beak sign and whirl sign.

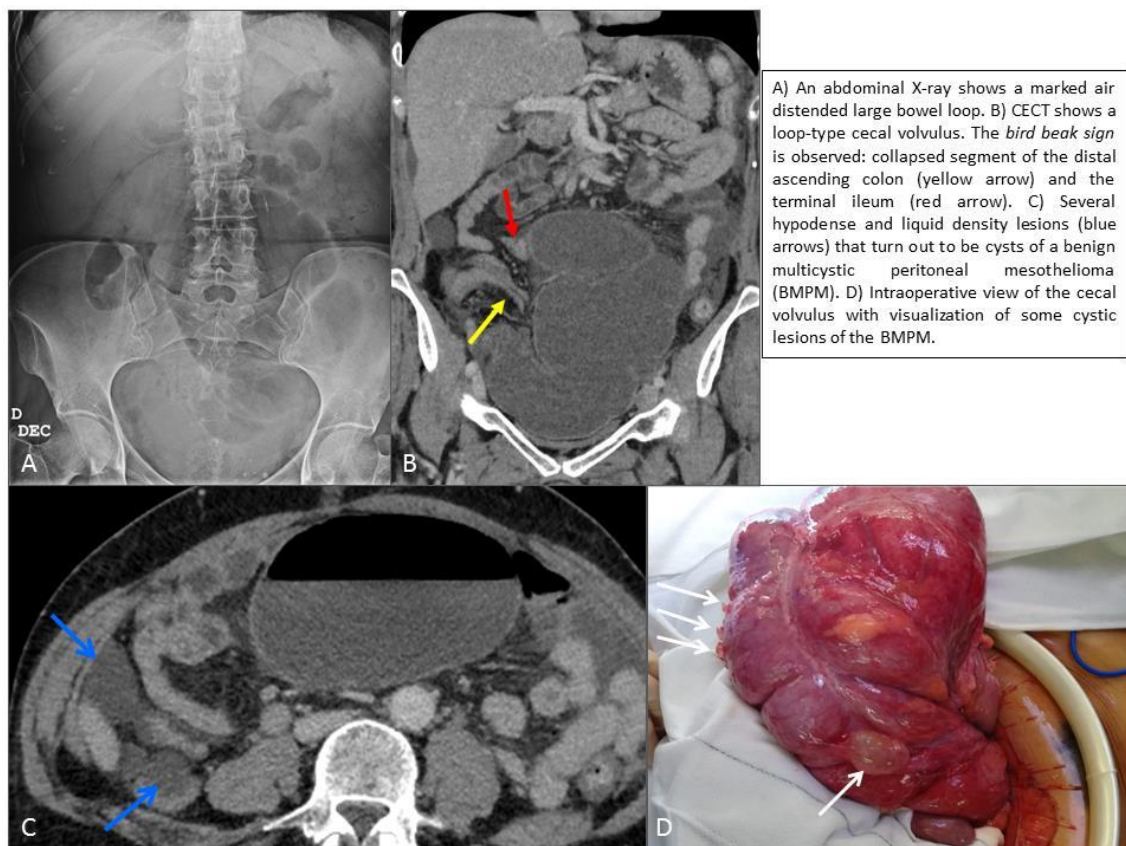
BMPM is an extremely rare mesentery-derived neoplasm, characterized by multiple cysts adhered to the abdominal cavity. Etiology is unknown and is more frequent in women of reproductive age. It is usually asymptomatic and is discovered accidentally. The better treatment option is the complete resection of the tumour, but the recurrence rate is up to 50%. Definitive diagnosis will be made by the pathologist.

To the best of our knowledge, there is no published case that links the BMPM to cecal volvulus. However, cystic lesions in the cecal area may have served as a fulcrum for rotation.

CONCLUSION

Cecal volvulus MDCT signs include an anomalous location of a distended cecum, the bird beak sign and the whirl sign.

BMPM is a rare mesentery neoplasm that radiologist should think about when multiple cysts are found in the abdomen.



BIBLIOGRAPHY

Rosenblat JM, Rozenblit AM, Wolf EL, DuBrow RA, Den EI, Levsky JM. Findings of cecal volvulus at CT. *Radiology* 2010;256:169-175.

Tentes A, Zorbas G, Pallas N, Fiska A. Multicystic peritoneal mesothelioma. *Am J Case Rep* 2012;13:262-264.