

## AB041. 253. Small bowel obstruction: CT role in guiding management

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**Abstract:** Small bowel obstruction (SBO) accounts for about 4% of all emergency admissions and about 15% to 20% of emergency surgical interventions. Symptoms are well known (vomiting, abdominal distension, constipation, abdominal pain). Diagnostic imaging including plain abdominal radiographs and MDCT plays a pivotal role in obtaining answers to four main questions: is there mechanical SBO or not? Location of SBO? The underlying cause? And are there complications warranting emergency surgical intervention (ischemia, peritoneal reaction, or bowel perforation). CT signs suggesting SBO include: small bowel loops distension, bowel wall thickening, presence of transition zone, feces sign, beak sign, abnormal course of the mesenteric vessels (whirl sign), C- or U-shaped appearance of bowel loop and presence of free peritoneal fluid. CT findings associated with success of conservative management include anterior parietal adhesion, Feces sign and Lack of beak sign. CT signs associated with failure of conservative

management include Presence of two beak signs or more, Presence of whirl sign, C or U-shaped appearance of bowel loop and High grade SBO. High quality abdominopelvic CT scan is the most valuable initial diagnostic tool, especially with appropriate contrast enhancement, in order to determine ischemic, inflammatory or neoplastic changes associated with SBO at the time of hospital admission that may require early operative intervention. In patients with acute SBO that are initially treated nonoperatively, clinical course after hospital admission, with return of bowel function or failure to improve, remains the most relevant factor affecting management decisions to proceed with surgical intervention. Traditional medical teaching "Never let the sun rise or set on an obstructed abdomen" is not valid anymore nowadays with the recent practice guidelines supported by level 1 evidence recommending non-operative management, regardless of radiologic findings, in patients with SBO (partial or complete) without evidence of peritoneal signs or clinical and laboratory evidence of deterioration.

**Keywords:** Small bowel obstruction (SBO); computed tomography (CT)

doi: 10.21037/map.2018.AB041

**Cite this abstract as:** Atyani S, O'Brien J, Hodnett P. Small Bowel Obstruction: CT Role in Guiding Management. *Mesentery Peritoneum* 2018;2:AB041. doi: 10.21037/map.2018.AB041