

The Predictive Role of Computed Tomography with Oral Contrast in the Successful Management of Adhesive Small Bowel Obstruction

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Abstract:

Background: Adhesive small bowel obstruction (SBO) stands out as one of the most frequent and clinically significant complications following abdominal surgery. The present study aimed to investigate the role of computed tomography (CT) with oral contrast media in guiding treatment and predicting the success of conservative treatment in patients presenting with adhesive SBO.

Patients and Methods: This is a prospective study that was conducted on adult patients who were clinically and radiologically proven to have SBO and had a history of at least one previous abdominal surgical intervention. The included patients underwent CT examination of the abdomen and pelvis with oral contrast. Patients who had the oral contrast seen reaching the right colon were admitted and completed conservative management. Surgical intervention was indicated in patients who showed failure of treatment with oral contrast.

Results: This study included 70 patients, of whom 29 (41.4%) had contrast in the right colon during CT examination after the first oral contrast administration. The remaining patients (n=41, 58.6%) indicated a second oral contrast CT study after 24 h. Sixteen (22.9%) patients had nonresolving obstructions and underwent surgical intervention. Overall, 52 (74.3%) patients were successfully treated with

oral contrast studies, with no subsequent morbidity. Significant predictors for surgical intervention were a history of more than one previous surgical intervention (OR=6.08, CI: 1.75–21.14, P=0.005) and nonpassage of contrast to the right colon in the CT study (OR=0.099, CI: 0.029–0.341, P<0.001).

Conclusion: This study highlights the clinical relevance of CT with oral contrast studies in guiding management. A history of multiple previous surgeries and nonpassage of the oral contrast to the right colon emerged as a significant predictor for surgical intervention.

Keywords:

adhesions, adhesive small bowel obstruction, computed tomography with oral contrast, previous abdominal surgery.