Standardized Gastrografin Protocol for Small Bowel Obstructions in Community Hospital Setting

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Introduction: Small bowel obstructions (SBO) are diagnosed and treated variously. The purpose of this study is to determine whether the use of Gastrografin oral hyperosmolar contrast and serial abdominal X-rays will lead to a decreased length of stay, readmission rate, and need for surgical intervention versus current management of patients with SBO.

Methods: A retrospective review of patients who presented to our hospital with the diagnosis of SBO over two years was performed. Patients were excluded if their clinical status led to emergent operative intervention, were admitted within 30 days of bowel surgery, or were <18 years old. The leading variable for analysis was patients undergoing Gastrografin protocol versus those that did not. The leading outcome was hospital length of stay. Secondary outcomes included number of CT scans during admission, progression to surgery and 30-day readmission rate. Analyses were performed using both unpaired T-tests and Chi-squared tests.

Results: A total of 55 patients with a SBO that met study criteria were reviewed. Total patients who underwent Gastrografin protocol were 24 versus 31 who did not. Gastrografin protocol patients had a decreased length of stay (mean, 2.2 days vs 3.9 days, p=0.0048) and decreased number of CT scans during admission (mean, 1.0 scans vs 1.35 scans, p=0.0027) compared to non-protocol patients. Both Gastrografin protocol and non-protocol groups had similar progression to surgical intervention (4.2% vs 16.1%, p =0.158) and 30-day readmission rate (12.5% vs 16.1%, p=0.70).

Conclusion: The Gastrografin protocol decreases length of stay and number of CT scans for patients admitted with SBO.