

Determination of therapeutic strategy for adhesive small bowel obstruction using water-soluble contrast agents: An audit of 776 cases in a single center

Haruki Mori, MD, Yuji Kaneoka, MD, PhD, Atsuyuki Maeda, MD, PhD, Yuichi Takayama, MD, PhD, Takamasa Takahashi, MD, PhD, Shunsuke Onoe, MD, PhD, and Yasuyuki Fukami, MD, PhD, Gifu, Japan

Background. Several studies have investigated the diagnostic and therapeutic role of water-soluble contrast agents in adhesive small bowel obstruction, but there is no clear diagnostic classification for the determination of therapeutic strategy. The aim of this study was to clarify the clinical value of classification using water-soluble contrast agents in patients with adhesive small bowel obstruction.

Methods. Between January 2009 and December 2015, 776 consecutive patients with adhesive small bowel obstruction were managed initially with water-soluble contrast agents and were included in the study. Abdominal x-rays were taken 5 hours after administration of 100 mL water-soluble contrast agents and classified into 4 types. The medical records of the patients with adhesive small bowel obstruction were analyzed retrospectively and divided into 2 groups of patients with complete obstruction (ie, the absence of contrast agent in the colon) with (type I) or without (type II) a detectable point of obstruction and a group with an incomplete obstruction (ie, the presence of contrast agent in the colon) with (type IIIA) or without (type IIIB) dilated small intestine.

Results. Types I, II, IIIA, and IIIB were identified in 27, 90, 358, and 301 patients, respectively. The overall operative rate was 16.6%. In the patients treated conservatively (types IIIA and IIIB), 647 patients (98.2%) were treated successfully without operative intervention. The operative rate was 3.4% (n = 12/358) in type IIIA vs 0% (n = 0/301) in the type IIIB group (P = .001). Compared with type IIIA, type IIIB was associated with earlier initiation of oral intake (2.1 vs 2.6 days, P < .001) and a lesser hospital stays (9 vs 11 days, P < .001).

Conclusion. This new classification using water-soluble contrast agents is a simple and useful diagnostic method for the determination of therapeutic strategy for adhesive small bowel obstruction. (Surgery 2017;■:■-■.)

From the Department of Surgery, Ogaki Municipal Hospital, Gifu, Japan

SMALL BOWEL OBSTRUCTION caused by adhesions after abdominal operation (ASBO) is one of the most common postoperative morbidities. ASBO is characterized by the presence of abdominal pain, vomiting, distention, and constipation and is

confirmed by imaging.¹⁻⁴ Appropriate management using a proper diagnostic and therapeutic pathway is necessary. Emergency operative intervention is required when strangulation is suspected. Conversely, conservative management is often sufficient in the majority of patients without signs of strangulation, but operative intervention is required in 15% to 30% of cases.¹⁻⁴ Various methods have been used to direct either operative or conservative management in patients with ASBO, and there are several conservative treatments for ASBO. Nevertheless, the ideal management of ASBO remains controversial.⁵⁻¹⁰

Water-soluble contrast agents (WSCA) have a high osmolarity and can thereby draw fluid from intravascular and extracellular spaces into the

The authors have no conflicts of interest to disclose.

Accepted for publication January 31, 2017.

Reprint requests: Yasuyuki Fukami, MD, PhD, Department of Surgery, Ogaki Municipal Hospital, 4-86 Minaminokawa-cho, Ogaki, Gifu 5038502, Japan. E-mail: yasuyuki490225@yahoo.co.jp.

0039-6060/\$ - see front matter

© 2017 Elsevier Inc. All rights reserved.

<http://dx.doi.org/10.1016/j.surg.2017.01.023>

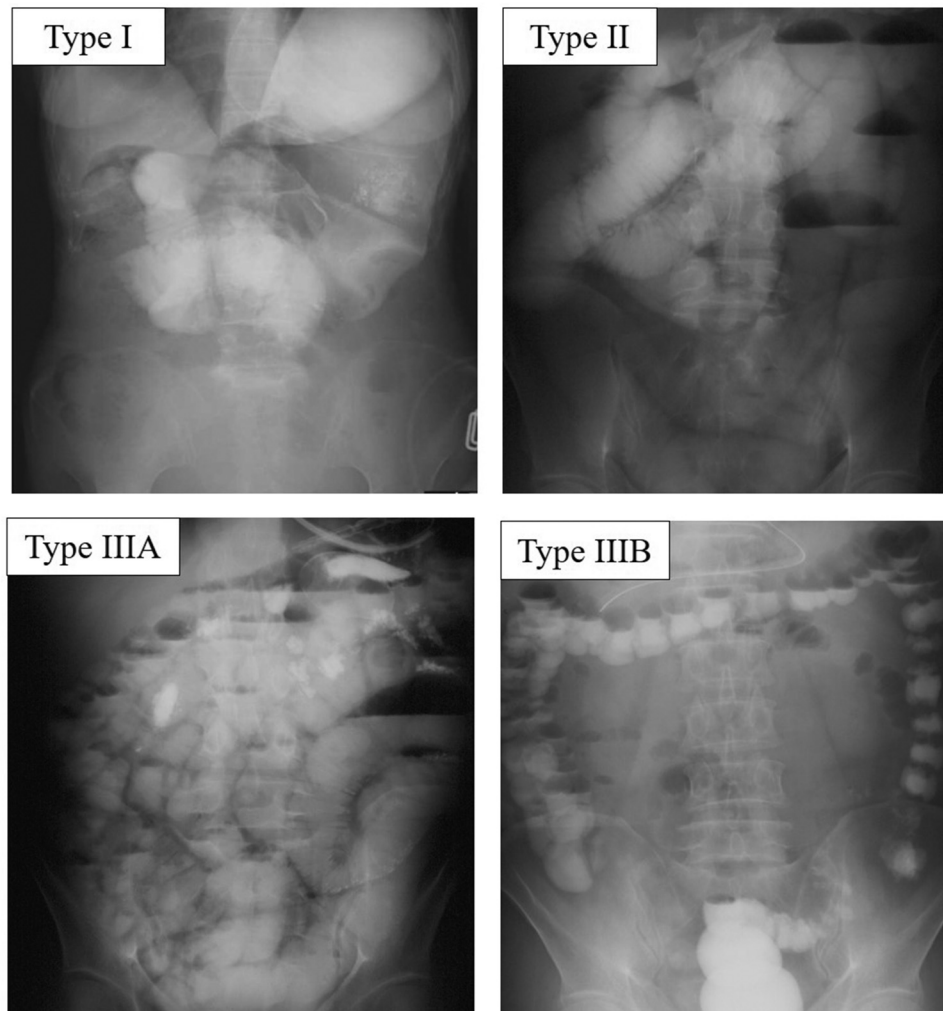


Fig 1. Ogaki classification using water-soluble contrast agent. Complete obstruction group: type I: the absence of contrast agent in the colon with a detectable point of complete obstruction; type II: the absence of contrast agent in the colon without a detectable point of complete obstruction. Incomplete obstruction group: type IIIA: the presence of contrast agent in the colon with dilated small intestine; type IIIB: the presence of contrast agent in the colon without dilated small intestine.

lumen, promoting proximal bowel distention. Thus, this hyperosmotic solution increases the pressure gradient across the site of obstruction and is believed to stimulate motility. A number of studies have investigated the diagnostic and therapeutic role of WSCA in patients with ASBO^{4,6,11-18}; however, there is no clear diagnostic classification for the determination of therapeutic strategy. The aim of this study was to clarify the clinical value of classification using WSCA in patients with ASBO.

PATIENTS AND METHODS

Between January 2009 and December 2015, 776 consecutive patients with ASBO who received WSCA (Gastrografin; Bayer Co, Osaka, Japan)

initially at Ogaki Municipal Hospital were included in the study. Diagnostic criteria for ASBO included a history of previous abdominal operation more than 4 weeks prior; clinical symptoms and signs of mechanical obstruction, such as abdominal pain, vomiting, abdominal distension, and constipation; and results of plain abdominal radiographs performed with the patient upright and routine computed tomography (CT) showing dilated loops of small intestine.

Emergency abdominal exploration was undertaken in patients with suspected strangulation or peritonitis, these patients were excluded from the present study. In addition, patients with a history of an abdominal operation for cancer and who showed recurrence were also excluded by routine

Download English Version:

<https://daneshyari.com/en/article/5734610>

Download Persian Version:

<https://daneshyari.com/article/5734610>

[Daneshyari.com](https://daneshyari.com)