Barium Contrast Medium in the Abdominal Cavity

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Picture 1. The abdominal radiograph shows barium contrast medium in the abdominal cavity.

Picture 2. CT image (coronal multiplanar reconstruction image) reveals barium contrast medium within the peritoneal cavity.

Picture 3. 3D CT image obtains barium contrast medium with bowel gas, liver, and spleen.

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A 91-year-old woman with abdominal pain and vomiting was admitted to the hospital. Laboratory findings indicated an inflammatory process. An abdominal radiograph (Picture 1) and noncontrast computed tomography (Pictures 2, 3) revealed barium contrast medium in the abdominal cavity. She had a history of duodenal ulcer perforation. An upper GI series with barium contrast medium had been performed 12 years earlier. Two days after the GI series, she developed sudden severe abdominal pain and an emergency operation was performed for a diagnosis of duodenal ulcer

perforation. At that time, she was treated for an open ulcer, but the barium coating on the peritoneum was not removed. On the present admission, we diagnosed her with enteritis and treated her with flomoxef sodium. She is now doing well.

Barium contrast medium in the abdominal cavity is rare. Peritonitis and adhesive ileus resulting from barium in the abdominal cavity are possible, and therefore long-term follow-up is necessary.