Case 426

2. Incomplete torsion ileus

【Progress】

Ileus tube was inserted near the occlusive site. The following day, she got laparoscopic surgery, which revealed small intestine volvulus. She got laparoscopic detorsion of the small bowel.

【Discussion】

The reason why small bowel mesentery volvulus occurs is not yet to be clarified. In western countries including Japan and Korea, the incidence of small bowel volvulus is rare, while in Arab and African countries the incidence is comparatively higher (1). After hunger terms of Lama dan periods, plenty of food ingestion is reported to the emergency of small bowel volvulus (1).

The symptoms of small bowel volvulus are the same as small bowel torsion ileus like abdominal pain, ischemia, necrosis, perforation and peritonitis depending on the degree and terms of small bowel volvulus (1-3).

As bowel volvulus, sigmoid colon volvulus is well known, followed by cecum volvulus irrespective of associated with malrotation of bowels or not. Meanwhile, although secondary small bowel volvulus is sometimes encountered in real clinical situations, spontaneous small mesentery volvulus is rare with incidence of 1% of all small bowel obstruction (1). In fact, mild volvulus of small intestine mesentery is experienced with small incidence, but it does not cause any symptoms. Once volvulus of bowel rotates 180 degrees or more, small bowel obstruction eventually occurs with symptoms of pain, nausea or vomiting (1, 2).

When volvulus is completed, radiologic findings of volvulus are like torsion ileus. Namely, double beak sigh should appear radiologically with occlusion of inner lumen. In our case, one beak sign, namely with one knot sign was clear but another was obscure, namely not complete, remaining narrowing lumen. We diagnosed it possible torsion ileus. Endoscopic surgery revealed no necrosis of bowel but redness of bowel surface, indicative of necessity for surgical approach. As a result, radiological diagnosis of small bowel occlusion with possible torsion ileus is possible but not diagnostic to small bowel mesentery volvulus. In literature, whirl sign is often acknowledged in volvulus of small bowel mesentery (3-7), but whirl sign is not diagnostic to torsion ileus or small bowel mesentery because whirl sigh is found in either case and further in other cases with adhesion ileus or dietary ileus or even in healthy bowel. Then, the role of imaging diagnosis of CT is to indicate the presence of small bowel obstruction with double beak sign, single beak sign or whirl sign. One report described the ileus tube alone brought out the release of small bowel volvulus.

In our case with one beak sign and one incomplete beak sign, our surgeon commented that based on intraoperative findings, surgical approach was necessary as a result.

【Summary】

We presented an eighty-two-year-old female transported by ambulance with abdominal pain. One complete beak sign with one knot associated with another incomplete beak sign with intraluminal narrowing was found on abdomen CT. Endoscopically surgical treatment revealed small bowel volvulus without necrosis, serving detorsion of small bowel. It is borne in mind that there is no existence of image findings diagnostic of small bowel volvulus but alike image findings of torsion ileus such as whirl sign, beak sign, and double beak sign that refer small bowel obstruction. Then, imaging diagnosis using CT is limited to contribute to judging whether surgical treatment is necessary or not.

【References】

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