Perforated Appendix Presenting with Disproportionate Jejunal Distention

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Abstract. Six cases of perforated appendix are presented in whom there was disproportionate gas distention of the jejunum without other radiographic signs of appendicitis. This appearance tended to divert one's attention from the offending cause in the right lower abdomen.

Key words: Appendicitis – Perforated appendix – Abscess – Periappendiceal – Distended jejunum – Small bowel obstruction

Fig. 1. S. S., 14 year old white female with vomiting and diarrhea. Operative findings: perforated gangrenous appendicitis but no obstruction

Fig. 2. S. A., 10 year old white male with right abdominal pain for two weeks. Had vomiting and diarrhea. Perforated appendix with peritonitis and some loculated pus in mid abdomen
Previous literature concerning roentgen features of appendicitis has generally emphasized findings in the right lower quadrant such as dilated, thickened loops of distal ileum. Distention of more proximal small bowel has been mentioned however [2].

In the past four years at LeBonheur Children's Hospital six cases of appendicitis with perforation have presented with the roentgen findings of disproportionate gas distention of the jejunum. This appearance tended to divert one from the offending cause and to focus attention on the left upper abdomen where a localized ileus or proximal small bowel obstruction was simulated.

Our experience would indicate this particular presentation of peri-appendiceal abscess is more common than generally appreciated.

In general, the cases were older children in whom diarrhea was a clinical feature.

Figs. 1–6 show the plain supine abdomen on each case which is briefly described in the legend.

Discussion

There is probably a reflex phenomenon mediated by the sympathetic nervous system that accounts for the jejunal distention. This same sympathetic neurologic disturbance could account for the diarrhea in these patients which was probably a manifestation of initial hyperperistalsis produced by stimulation of the intestine by the contiguous inflammatory appendiceal process. What contri-