

Laparoscopic closure of perforated duodenal ulcer.

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Abstract:

Background: Medical treatment of peptic ulcer is highly successful, and the eradication of *Helicobacter pylori* (*H. pylori*) reduces ulcer recurrence. However, the incidence of perforated duodenal ulcer and its associated mortality have not been reduced by modern methods of therapy. Laparoscopic simple closure and omental plug by suturing, fibrin glue, and stapler have been successful. Methods: Over a 1-year period (1996-97), 21 patients with perforated duodenal ulcer were operated on in our hospital by laparoscopic simple closure and omental patch. The mean age was 36.4 \pm 11.8 years (range, 18-61). Twenty patients were male (93.7%). The mean duration of pain was 9.1 \pm 11.7 hs (range, 2-48). Three patients had a previous history of duodenal ulcer (14.3%), and another three (14.3%) patients had a history of nonsteroidal antiinflammatory drug (NSAID) intake. Erect chest radiograph showed that 19 patients had air under the diaphragm (90.5%). Sixteen patients (76.2%) had frank pus in the abdomen, and five patients had a minimal peritoneal reaction (23.8%). Results: The mean operative time was 71.6 \pm 24.6 mins (range, 40-120), and the mean hospital stay was 5.2 \pm 1.6 days (range, 3-9). The mean time to resume oral fluids was 3.1 \pm 0.8 days (range, 2-4). Only one patient was reoperated due to leakage identified by gastrographin swallow. Conclusions: This procedure is safe and efficient; however, further study of its long-term effectiveness and comparability to existing therapy is still needed.