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Brief Clinical Report

Laparoscopic Closure of Gastric Stab Wounds: A Case Report

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Summary: For years laparoscopy has been used selectively in the diagnosis of blunt and penetrating injuries to the abdomen. Recent advances in instrumentation have taken laparoscopy beyond its limited role in diagnosis. Use of the laparoscope for therapeutic intervention in selected cases of abdominal trauma is now possible. Here we report the use of laparoscopic techniques to diagnose and treat two stab wounds to the anterior wall of the stomach. **Key Words:** Trauma—Laparoscopy—Stomach.

The management of penetrating abdominal trauma is in the process of evolution. Mandatory laparotomy following penetrating abdominal trauma has been replaced by selective intervention (1). Whereas most abdominal gunshot wounds are best treated by laparotomy, abdominal stab wounds in many instances call for selective management. The high incidence of nontherapeutic laparotomies and their associated morbidity in patients who have abdominal stab wounds but who are stable and without significant physical findings has led to this change in management (1,2).

Selective operation in patients with abdominal stab wounds has decreased the incidence of negative laparotomy dramatically (3–7). In an attempt to reduce this incidence further, use of laparoscopy has been proposed (8–11). Until recently laparoscopy has been considered only as a diagnostic modality. New instrumentation combined with a realization of the potentials for laparoscopic intervention will change this view.

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CASE REPORT

A 38-year-old man was brought to the trauma room by paramedics after he sustained two abdominal stab wounds. Injuries included a 1-cm stab wound in the left midaxillary line at the level of T10 and a 1-cm stab wound in the left midclavicular line just below the costal margin. Neither wound was actively bleeding. Physical examination revealed abdominal wall tenderness in the region of the wounds but no peritoneal signs. Hemodynamics were entirely stable. Laboratory studies showed a hematocrit of 41% and a white blood cell count of 5,900 cells/mm^3. Chest and abdominal x-rays revealed no pneumothorax or hemothorax and no pneumoperitoneum. In light of the above findings, the patient was admitted to the hospital for observation.

Eighteen hours after admission, the patient's temperature had risen to 100.8° F and his white blood cell count had climbed to 16,000 cells/mm^3. On physical examination, the patient's subjective complaints and objective findings had appeared to be limited only to the wounds themselves; because of his elevated temperature and white blood cell count, the patient was taken to the operating room for laparoscopic exploration.

Pneumoperitoneum was created through a 10- to 11-mm sheath placed infraumbilically using the