ABSTRACT

Introduction: Laparoscopic splenectomy has become the procedure of choice for those patients who need to have a splenectomy. The skills required to perform a laparoscopic splenectomy are not easy to learn and therefore may limit the availability of this procedure to patients.

Methods: We present a hand-assisted technique that allows the performance of a laparoscopic splenectomy safely and rapidly by surgeons without a great deal of experience with this procedure.

Results: A laparoscopic hand-assisted splenectomy was performed by a chief resident who had not performed this procedure before. The operative time was comparable to that of a laparoscopic splenectomy performed by an experienced laparoscopic surgeon at our institution (65 vs 62 min).

Conclusions: The hand-assisted technique is useful in a number of laparoscopic situations. We suggest that hand-assisted laparoscopic surgery might be used as an adjunct for surgeons with limited laparoscopic experience and for residents who are learning advanced laparoscopic skills.

Key Words: HALS, Laparoscopy, Splenectomy.
to assist a resident who is learning the technique of laparoscopic splenectomy.

METHODS

A 43-year-old male initially presented with left lower quadrant pain. He was evaluated for diverticulitis with a computed tomography (CT) scan. In addition to demonstrating mild inflammation around the sigmoid colon, he was noted to have 15 to 20 lesions <1 cm within the spleen. Once he recovered from his diverticulitis, he underwent a follow-up CT scan that revealed that the lesions in his spleen had grown. He underwent an extensive workup that included magnetic resonance imaging (MRI) of the abdomen, positron emission tomography (PET) scan, bone marrow biopsy, multiple blood cultures, laboratory tests, and peripheral blood smears. The differential diagnosis included malignancy, sarcoidosis, and infections. Because the workup failed to reveal a cause for the lesions in his spleen, he was referred for a splenectomy.

The patient underwent a hand-assisted laparoscopic splenectomy. The surgery was conducted by a chief resident with the assistance of an experienced laparoscopic surgeon. A hand port was inserted in the periumbilical position. Two additional ports were placed under direct vision (Figure 1).

The splenectomy was then carried out in a standard fashion: ligation of the short gastric vessels, dissection of the hilum, use of the endo-GIA for the splenic vessels, dissection of the peritoneal attachments, removal of the intact spleen through the hand port, and closure of ports.

The patient recovered uneventfully from his splenectomy. The pathology revealed noncaseating granulomas. He was subsequently diagnosed with Bartonella (Cat Scratch Disease) and treated with doxycycline.

RESULTS

A hand-assisted laparoscopic splenectomy was performed by a chief resident who had not performed this procedure before. He accomplished the surgery in 65 minutes. This is comparable to an experienced laparoscopic surgeon’s time performing a laparoscopic splenectomy without a hand port (average time, 62 min).

CONCLUSIONS

The hand-assisted technique is useful in a number of different situations. Specifically, it can be used as an aid in the removal of a massive spleen as well as in the setting of traumatic rupture of the spleen. It can also be used instead of converting to an open procedure when the anatomy is difficult or bleeding is encountered. In addition, we suggest that since a chief resident was able to perform the procedure efficiently using HALS splenectomy, it should also be considered as a possible bridge to performing a strictly laparoscopic splenectomy. Future studies are needed and should attempt to investigate whether the hand-assisted technique offers the same benefits as laparoscopy in terms of postoperative pain, better cosmesis, faster return of bowel function, early return to normal activities, and shorter hospital stays.

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