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LAPAROSCOPIC SPLENECTOMY — NOT FOR THE FAINT OF HEART

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This issue of the Journal (page 28) contains another in a series of articles by Dr. Eric Poulin and his colleagues on the laparoscopic approach to splenectomy. This excellent report details the results of laparoscopic splenectomy in 51 consecutive patients and reminds us of the lessons that have been learned along a rather protracted learning curve.

The forthright report by Poulin and Mamazza on the development of the current technique for splenectomy is a welcome addition to an increasing literature on this procedure, which challenges those of us operating on the spleen, especially for the management of idiopathic thrombocytopenic purpura in which the

spleen is usually close to normal size.

Recent reports from Belgium, and Arizona, Missouri and Ohio in the United States¹⁻⁴ attest to the fact that this procedure is being increasingly applied. Furthermore, with access to the Internet, a significant number of patients will likely be requesting or demanding a laparoscopic approach to their disease in the future.

The lessons that Poulin and Mamazza underline for us are, in summary, that the procedure is best performed in spleens no longer than 30 cm and that the lateral approach with the patient in a steep right lateral decubitus position has made the procedure much easier. The do not recommend, as they did in an early publication,⁵ the

uniform use of prior splenic artery embolization.

For those colleagues who wish to learn this technique, careful adoption of the technical aspects of positioning and the steps along the way will be essential to the development of their abilities in this difficult but "do-able" procedure. I have attempted 9 laparoscopic splenectomies, 5 of which were completed laparoscopically. I encountered a number of difficulties, which I believe will be useful to share with readers of the Journal.

Because I have been in close contact with Dr. Poulin since he began doing this operation in Canada, my approach to laparoscopic splenectomy has developed along the same lines. The change

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in positioning the patient to the right lateral position has been extremely important and has helped immeasurably. Nonetheless, there is a need for better instruments to retract the spleen and the liver as well as to elevate the lower pole of the spleen once its lateral attachments have been divided. The upper pole is more accessible once some mobility has been achieved in the lower pole dissection. However, access to the main vessels in the hilum is not easy unless a soft atraumatic retractor is available to tip the spleen back over to the left side superiorly for good visualization. One of my worst nightmares in this operation is the “bagging” of the spleen once it has been fully mobilized. Manipulation of the organ in the abdomen is challenging, and the technique of removal using a “ziplock” bag, which Poulin has perfected, is one that I have been unable to master. There are a number of commercially available bags, including one mounted on a firm ring that opens out and provides the operator with a “fishing net” approach. For me, this type of bag is the most useful for isolating the spleen.

Each surgeon who begins to do this procedure will find a number of tricks to make this operation technically easier. I strongly recommend teaming with a colleague as an assistant, especially early on, because this provides an excellent opportunity for learning and collaboration.

The surgeon must be prepared for a long operation, at least initially until experience grows. Poulin averaged 2 hours 18 minutes on his last 15 cases. I doubt that the procedure can be done in less than 2 hours, and if preoperative positioning is included, 3 hours of the operating schedule is probably needed for this operation. The increasing difficulty of access to operating room time more than anything else is likely to be the rate-limiting step to the development of laparoscopic splenectomy.

The use of the laparoscope for splenectomy is an exciting and challenging approach, which I believe needs verification and must be justified on the basis of shorter hospital stay and increased patient comfort. The occasional requirement to remove the spleen through an open surgical incision will certainly hamper the ability to discharge patients much earlier than would have been possible with a limited left subcostal incision or an upper midline approach.

The call for a national prospective randomized study on laparoscopic splenectomy is timely and should be supported by all who are interested in extending the use of laparoscopic techniques to procedures outside the biliary tract. If this study can be completed by enthusiastic surgeons across the country under Dr. Tandan’s excellent protocol,* we may be able to define scientifically the role of laparoscopic

splenectomy in the future management of hematologic disorders requiring removal of the spleen.

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