

of both artery and vein in young patients is difficult to substantiate.

Catheterisation of the bladder with the risks of iatrogenic urethral injury is not considered by us to be essential for a laparoscopic procedure. We safely perform laparoscopy on most children without catheterisation by asking the child to void before coming to theatre and palpating the abdomen before preparation. In addition, as most bladder injuries are the result of blind primary port insertion our policy has been to adopt a modified Hasson's procedure so that the primary port is placed under direct vision and off its trocar.

Instrumentation for use in children is becoming available and our standard port sizes are a 10 mm port enabling use of endoclips with two 4 mm working ports. It is possible to obtain a pneumoperitoneum sufficient to work within with an intra-abdominal pressure considerably less than that used by Al-Shareef *et al.*; in our experience a pressure between 6 and 10 mmHg is usually sufficient. The use of the lowest possible volume of CO₂ is recommended to reduce distension-related morbidity.

Although the early results of laparoscopic management of varicoceles are encouraging, long-term follow-up is required before this should replace the current gold standards, and until then parents/patients must be aware of the limited experience available with this technique when obtaining consent. Unfortunately, the short follow-up in Al-Shareef *et al.*'s paper has gone little way to resolving this issue, although they have confirmed our beliefs that anatomically it is a superior approach and that it will probably prove to be the operation of choice.

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References

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More than 30 years ago a seminal article on 'The nature and surgical treatment of varicocele' by Hanley and Harrison (1) emphasised that, in the great majority of cases, a varicocele is produced by varicosity of the cremasteric veins and does not involve the testicular veins which are generally normal. They pointed out that ligation of the cremasteric veins is dramatically effective in relieving pain and improving fertility and that ligation of the testicular veins alone is usually ineffective.

The article on 'Laparoscopic ligation of varicoceles: an anatomically superior operation', by Zain H Al-Shareef *et al.* (*Annals*, September 1993, vol 75, p345) could cause serious confusion. The summary states that "26 varicoceles were treated by laparoscopic ligation of the internal spermatic veins". However, the description of the surgical procedure

states that "all veins (my emphasis) were dissected individually", implying that the operative procedure may also have included ligation of the cremasteric veins which usually drain into the inferior epigastric. The follow-up in these cases ranged from only 3 weeks to 9 months.

As a retired surgeon I have no experience of laparoscopic surgery. However, during my practising years, in those relatively few patients where surgical treatment of a varicocele was clearly necessary, I have since 1962 always followed the Hanley/Harrison teaching with surgical trainees. One of my former registrars, Mr David Dunn, now a consultant surgeon in Cambridge, who has extensive experience of different types of laparoscopic surgery and who has used this technique for varicocele, confirms Hanley's findings (personal communication, 1993).

I fear that this particular branch of laparoscopic surgery may quite undeservedly get a bad name if surgeons are led to believe that all they need do is to ligate the testicular vessels. Perhaps the authors of your article could now clarify this very important matter.

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Reference

- 1 Hanley H, Harrison RG. The nature and surgical treatment of varicocele. *Br J Surg* 1962; **219**: 64–7.

Authors' reply

Sir Reginald Murley's letter raises three questions:

- 1 Of the three groups of veins (spermatic, cremasteric and vasal) which group constitutes the varicocele?
- 2 At what level should the venous ligation be performed?
- 3 Is laparoscopic surgery safe and acceptable in dealing with varicoceles?

It is well recognised that all the three groups of veins contribute for the formation of a varicocele. If only one component is interrupted the remaining veins would be responsible for the recurrence (1). Therefore, it may be ideal in most cases to deal with all three groups of veins using the laparoscopic method.

However, the testicular venous drainage may have extensive anastomoses with various veins, eg renospermatic, lumbar capsular, contralateral internal spermatic, scrotal and saphenous. Some of these collaterals account for the recurrence in a few instances (2,3).

Concerning the level of ligation, scrotal level ligation, as suggested by Hanley and Harrison has a high recurrence rate and carries the risk of devascularising the testis. The best results quoted by them and Sir Reginald are not achieved by most surgeons using this method. The procedure does not seem rational when compared with alternative techniques (4). The method which we described in our article corresponds with the Palomo operation (5). The difference being: (a) the interruption of the internal spermatic veins (testicular) is effected laparoscopically, (b) the veins are clipped individually, (c) the testicular artery is preserved.

The laparoscopic ligation of varicoceles has been proved to be safe and effective (6–10). So far, in our unit we have carried out such ligations on 73 patients. In this ongoing trial the follow-up period now ranges from 2 weeks to 21 months and we have come across two cases of recurrence. We await the long-term results of our own and those of other centres. Perhaps these should mirror, if not improve, on the long-term results of the