

## Laparoscopy as an Adjuvant in Appendectomy

The acutely inflamed appendix is, at least in the United Kingdom, not usually approached by laparoscopy, as its place in the treatment of this condition has been questioned (1). However, in our experience it has been advantageous to use a laparoscope as an adjuvant during appendectomy.

When starting with the now usual transverse incision (2) with its improved cosmesis but decreased field of vision (Figure 1), the surgeon often finds it necessary to extend the wound in order to inspect the abdominal cavity, particularly in the symptomatic younger female when the appendix is unexpectedly found to be innocent (3). However, this does not happen often enough to warrant laparoscopic evaluation prior to appendectomy in all cases, as suggested by Olsen et al. in 1993 (4).

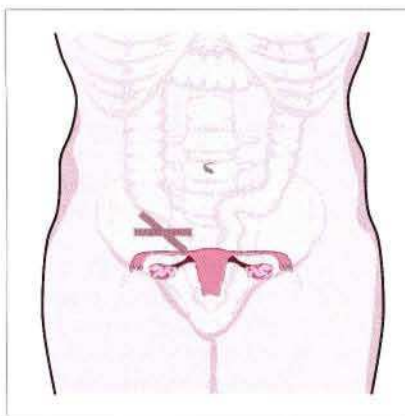
To avoid a large incision but still obtain good illumination and visualization, we have found it advantageous to use a standard straight laparoscope to inspect the small pelvis and the abdomen. The insertion is safe, since the abdominal cavity is entered under vision. As the anterior abdominal wall is elevated by gentle retraction, the scope itself illuminates the area of interest, and at the same time enables the surgeon to inspect the organs and even to close in on possible pathology. Figure 2 shows the laparoscope inspecting both ovaries easily. The view occasionally has to be improved, particularly in the more obese patient, by inflating the abdominal cavity with small amounts of carbon dioxide. This is possible with a reusable Lap-Port, around which the peritoneum is closed with an airtight seal using a Vicryl purse-string suture. The inspection can be extended to part of the upper abdomen as well, but the positioning of the patient (head up vs. head down, etc.) needs to be altered accordingly.

We have used this method in 32 patients when the initial inspection showed that the appendix was apparently not the cause of the symptoms, and although no direct inspection was possible, we were able to confirm a diagnosis of salpingitis and small ruptured ovarian cysts, not requiring any further surgical intervention, in thirteen cases. The twisted ovarian cysts that were encountered were excised using standard laparoscopic techniques. As in conventional appendectomy, a formal laparotomy needs to be performed if other serious pathology is detected elsewhere in the abdominal cavity, which cannot be dealt with using laparoscopic techniques. On the three occasions on which this was necessary, the transverse incision was closed, and a midline or Pfannenstiel approach was used to re-enter the abdomen. Two cases of hydrosalpinx, and one of haematosalpinx with a contralateral hydrosalpinx, were successfully treated using this approach. For the remaining 13 patients, we used the laparoscope to establish that no other pathology was present before closing the abdomen.

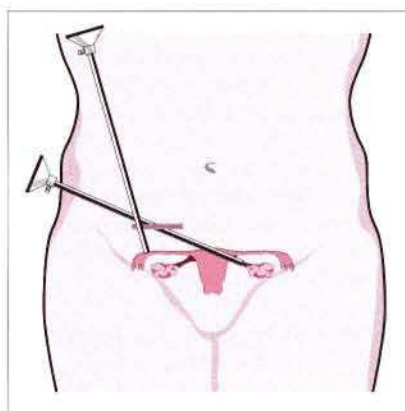
S. A. Verborg<sup>1</sup>, P. Zejdl<sup>1</sup>, I. M. Williams<sup>2</sup>

<sup>1</sup> Dept. of General Surgery, East Glamorgan Hospital, Pontypridd, Mid Glamorgan, Wales

<sup>2</sup> Dept. of Surgery, Whittington Hospital, Manchester, England



**Figure 1:** Oblique and transverse incision and their relation to the ovaries and adnexa.



**Figure 2:** Accessibility of the small pelvis by laparoscopy.

## References

1. Esser G. Hat die laparoskopische Appendektomie noch einen Stellenwert bei der akuten Appendicitis? *Langenbecks Arch Chir* 1992; 377: 317–21.
2. Mellrath DC. Surgical disorder of the vermiform appendix. In: Sabiston DC, editor. *Essentials of surgery*. Saunders, Philadelphia: 1987: 464–5.
3. Sinanan MA. Acute abdomen and appendix. In: Greenfield LJ, editor. *Surgery: Scientific principles and practice*. Lippincott, Philadelphia: 1993: 1140–2.
4. Olsen JB, Myrén CJ, Haahr PE. Randomized study of the value of laparoscopy before appendectomy. *Br J Surg* 1993; 80: 922–3.

## Corresponding Author

S. A. Verborg  
Dept. of General Surgery  
East Glamorgan Hospital  
Churchvillage, nr. Pontypridd  
Mid Glamorgan  
Wales  
United Kingdom  
Fax: ++44 443 206852/217775