Laparoscopy: How good could it get!

Dear Editor,

This is with reference to the article "Laparoscopic Management of ectopic pregnancies" published in MJAFI 2004; 60(4): 220-223. Laparoscopic surgery has its own dangers. The duration of laparoscopy, the risk of unsuspected visceral injury and the difficulty in evaluating the amount of blood loss, make anaesthesia for laparoscopy a high-risk procedure. A quarter of the reported cardiac arrests, which occurred during induction of pneumoperitoneum, resulted in death, possibly due to gas embolism. Though a decline in mortality has been seen over time, Mintz has stated that laparoscopists are dangerous, not laparoscopy [1]. Visceral injury during introduction of the Verres needle and trocar may require conversion to laparotomy. Other complications include pneumothorax, pneumomediastinum, pneumopericardium and subcutaneous emphysema.

Hypovolemia is a contraindication to laparoscopy and pneumoperitoneum. Hemoperitoneum of 2000 ml in the laparoscopy group of the series is a lot of blood! Not only would it make the patient's haemodynamics unstable, but would leave the surgeon fishing in the dark. Is it prudent and justifiable to do the procedure when there is active bleeding from the tubal rupture site or the fimbrial end?

REPLY

Most studies have suggested laparoscopic surgery is superior to laparotomy. Advantages of laparoscopy include shorter hospital stay, less surgical blood loss, less analgesia requirement and short post-operative convalescence. In year 2000 laparoscopic surgery accounted for 40% of urologic procedures, 50% of general surgery procedures and 70% of gynaecologic procedures performed in United States. As no surgical procedure is without risk, survey of laparoscopic complications in UK revealed an incidence of 1.4-4.7/1000 operative laparoscopies. The American Association of Gynaecological Laparoscopists was founded in 1972 and since then complications have decreased from 78% in 1972 to as low as 12% in 1993. Hence improved training and credentialing can help ameliorate complications relating to improper technique.

Laparoscopic management of ectopic pregnancies is accepted worldwide in haemodynamically stable patients. In our series the

It is a challenge for an anaesthesiologist when a patient with cardiac disease is subjected to laparoscopy surgery. Whether laparoscopy is more dangerous than laparotomy has not been explored. It is creditable that a patient of rheumatic heart disease with prosthetic valve on oral anticoagulants safely underwent laparoscopy in the series.

All patients who underwent laparoscopy were discharged home after two to three days, as compared to laparotomy patients who stayed in hospital for seven days. The discharge criteria and indices of postoperative morbidity have not been mentioned in the article. With advent of epidural post-operative analgesia even patients of laparotomies tend to have less morbid postoperative periods and may be discharged sooner than ever before.

References

1. Mintz M. Le risqué et la prophylaxie des accidents en coelioscopie gynécologique: enquête portant sur 100,000 cas. J Gynecol Obstet Biol Reprod (Paris) 1976; 5:681.
2. Knos GB, Sung YF, Toledo A. Pneumopericardium associated with laparoscopy. J Clin Anesth 1991; 3: 56.

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patient with 2000ml haemoperitoneum was haemodynamically stable. The presence of haemoperitoneum should not preclude laparoscopic treatment and utilizing a wide bore suction irrigator blood can be evacuated. Endovision camera with high gain, xenon light source, excellent telescopes and electronic carbon dioxide endoflator provide excellent visibility and surgeon's don't have to fish in dark.

Most patients with rheumatic heart disease after valve replacement have optimal cardiac functions and anaesthesia with cardiac monitoring and skillfully performed laparoscopy is advantageous over laparotomy.

Patients after laparotomy are discharged in two days and ability to resume normal activity is much better with laparoscopy.

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