

for various pressures and flow rates. It provides insufflation pressure up to 25 mm Hg. The risk of air-embolism was reduced by working at low pressure on 12-14 mm Hg and meticulous common place technique. Meticulous homeostasis was achieved during dissection so that no venules are left open for air-embolism. There had been no explosion and fire injury during use of electrocautery. The only disadvantage of air is the discomfort produced by residual subphrenic air, as air is absorbed very slowly. This can be minimized by complete evacuation of air at the end of procedure.

Anesthesia

We used local anesthesia for small procedures like lap-biopsy, diagnostic lap, ascites drainage and chromotubation. For upper abdominal surgery epidural anesthesia was used and lower abdominal procedures were carried out under subarachnoidal anesthesia. This was done to avoid the complications of general anesthesia reduce the cost of anesthesia, as spinal anesthesia is much cheaper as compared to GA. There have been no cardio respiratory problems at insufflations pressure of 12-14 mm Hg, under spinal anesthesia.

DISCUSSION AND CONCLUSIONS

In rural areas the surgeon has to live up to the popular acceptance of patients, However there are deep rooted myths which are to be addressed. The *myths* are:- (a) gas is filled in abdomen during surgery and patient suffers life long with "GASTIC". (b) it is not possible to remove specimen through the small hole. (c) laparoscopic surgery is incomplete. (d) it is a "current" operation. (e) it is a costly operation.

The most important point in the regard is excellent communication skills and explanation of procedure in detail, with emphasis on laparoscopic surgery to the patient and likely need for conversion in case of any complication. He must build on an excellent rapport, and take responsibility of training of staff in operative steps and handling of costly equipments. He should also develop excellent report with other professional colleagues for back up.

The complications in relation to needle and trocar placement can be prevented by proper techniques and following basic principles of laparoscopic surgery.

Procedure-related complications can be avoided by adhering to basic principles and meticulous dissection and setting danger limits. Every possible complication should be kept in mind and should be detected during procedure at the earliest as we do not have access to CT and ERCP.

Reopening and referral to higher centers makes a surgeon and the procedure very unpopular. It can tarnish his image and career to no ends. This is more evident in rural areas. Complications related to pneumoperitoneum can be tackled by proper monitoring. With proper monitoring, use of proper technique, appropriate pressure, and complete homeostasis there is no chance of air embolism with the use of atmospheric air as insufflating material. There is practically no chance of explosion and fire injury with the use of air with electrocautery. Cost of surgery is also reduced with use of air. Complications related to GA are also reduced with use of spinal and local anesthesia and there is further reduction of cost. But strict patient monitoring and pre-operative fluid loading is must. There must be arrangement of GA and endotracheal intubations in case of any unexpected complication. There should be arrangement of inverter/generator in hospital as power failure is very frequent in rural areas. Surgeon has to keep himself updated about latest technologies. He must get himself trained by attending CME programmes and workshops and should do ethical surgery. He has to develop excellent communication skills and must display excellent PR skills to convince the patient that he has their best interest at heart. He must be meticulous to minimize complication. He needs to be an excellent teacher to his staff and a faithful healer to people.

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