Laparoscopic surgery in pregnancy

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Introduction:

Laparoscopic approach for therapeutic purposes in gynaecological conditions has been established and has its superiority in terms of short term and long term benefit to the patients and is increasingly useful in many fields of surgery. With wide spread acceptance of operative laparoscopic surgical indications in gynaecological disorders, it is but natural to extend the benefits of laparoscopic approach to the obstetrical patients also.

Nezhat et al (1995) state that providing therapeutic laparoscopy for pregnant patients gives the benefits of better exposure with a magnified view, decreased postoperative pain needing less analgesic agents, rapid recovery, low morbidity from thromboembolic events, early ambulation and superior cosmetic results.

Material:

We present our experience of 5 cases of pelvic pathology in early pregnancy managed laparoscopically. The modifications used over conventional operative laparoscopic procedure were avoidance of uterine handling and higher placement of verress needle and trocar in the anterior abdominal wall depending upon the size of uterus, mainly to avoid uterine injury. Verress needle and trocar were directed strictly vertically and the depths of their insertion were carefully controlled, these being blind insertions. The accessory ports were made under vision and at slightly higher levels. Minimal possible conservative surgery was performed to cut short the total operative time. All cases were discharged after 48 hrs. with no operative or post operative complications. Tocolytic drugs were used routinely in all cases. General anaesthesia with endotracheal intubations and adequate oxygenation were maintained along with proper monitoring.

One patient had bleeding per vaginum 4 weeks after surgery and was lost to follow up. All other cases delivered normally near full term.

Discussion:

Widespread use of Operative Laparoscopy for gynaecological conditions lead to an anticipated sequelae of therapeutic laparoscopy approach in other pelvic

Table 1.

Sr. No.	Clinical presentation	Gestation age	Pathological condition	Operation performed	Outcome
1.	Acute abdomen	8 Wks	Concurrent ruptured ectopic	Toilet & salpingectomy	8 months ongoing pregnancy
2.	Pain in RIF with right adnexal mass	9 Wks	Acute on chronic appendicitis	Thorough evaluation & appendectomy	Normal delivery
3.	Pain in abdomen	14 Wks	Haemorrhagic Ovarian cysts 15x15cm.	Cyst aspiration	Normal delivery
4.	Acute abdomen with hypovolaemia	8 Wks	Twisted ovarian cyst	Oopherectomy	Bleeding PV after 4 Wks, lost to follow up.
5.	Persistent abdominal discomfort	10 Wks	Ovarian cyst 14x16 cm	Cyst aspiration	Normal delivery

conditions in obstetric patients. The possibility of threatened abortion or preterm labour has been debated by various workers after laparoscopic intervention in early pregnancy. However in our experience we have not observed any undue increase in such incidence. This is primarily due to the fact that uterine manipulation or handling is totally avoided. Of course one has to be very careful to avoid injury to the much enlarged uterus and biggest danger lies while insertion of verress needle and trocar canula. The height of uterus at which operative laparoscopy can be performed has still to be decided but larger the size of the uterus the more is the risk to the gravid uterus. As a rule bare minimum laparosopic surgery should be planned. The question of the effect of CO2 pneumoperitoneum on the ongoing pregnancy is fully answered by Barnard et al (1995) and Hunter et al (1995). However further randomized prospective studies are required for longterm comment. In our short series we did not come across any major long term or short term complication affecting the pregnancy. Laparoscopic surgery should be avoided in pregnancy of more than 16 weeks in gestational height and such procedures should be done by experienced endoscopists only.

Major advantage of this approach was a short hospital stay, rapid recovery, early ambulation, reduced risk of thromboembolism and far superior cosmetic benefit apart from avoidance of exploration and its aftermath. No rise in incidence of abortion or preterm delivery was noticed.

References:

1) Barnard IM, Chafin D, Droste S. Obstet Gynecol 85: 674, 1995.

2) Hunter JG, Swanstrom L, Thornburg K: Surg. Endosc 9; 272, 1995.

3) Nezhat CR, Nezhat FR, Luciano A.A: Operative Gynecologic Laparoscopy: Principles & Techniques 1st ed. New York, Mcgrave- Hill, 1995.