LAPAROSCOPICALLY ASSISTED TRANSPARIETAL REMOVAL OF BENIGN CYSTS AND TUMOUR OF THE OVARIES

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SUMMARY

'Big surgeons make big incision', was the teaching to most of the young resident surgeons three decades ago.

Following incredible advances in bio-engineering, optics and instrumentation more and more is now being done with less and less trauma. With minimally invasive surgery, there has been a positive change in the right direction, whereby surgeons now are attempting to reduce patients' concern about post-operative pain, discomfort, duration of hospitalisation, time away from normal activity and total cost of the treatment of illness.

It has been a standard practice to perform laparotomy and ovarian cystectomy or ovariectomy for benign organic cysts and tumours of ovaries.

As the concept of minimally invasive surgery is becoming more popular, a reappraisal of this approach should be considered.

In this communication, we describe management of four cases of benign adnexal ovarian masses - which were removed by Laparoscopically assisted transparietal technique. Two were cases of dermoid cysts, third one of arrheno-blastoma of ovary and the fourth was a para-ovarian cyst.

Details regarding the patients operated by this technique are shown in Table I.

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MATERIAL AND METHODS

All these patients were seen in the infertility clinic of Baheti Hospital, Kota. Incidentally, in all of them the lesion was in left ovary. Laparoscopy was carried out only after ultra-sound evaluation of the adnexal mass - whereby malignancy was ruled out.

Under intratracheal gas-oxygen-halothane anaesthesia laparoscope was introduced into the peritoneal cavity through 10 mm. Subumbilical portal after pneumoperitoneum with carbon-di-oxide. The endoscopic camera was attached to laparoscope. Preliminary examination of the abdominal cavity was made after initial inspection of the pelvic organs. After making sure that the ovarian mass was benign in nature, 5 mm. port was made on the right side in lower abdomen just lateral to rectus muscle about 3 cm. above the inguinal ligament.

In cases 1, 2 and 4, the fluid contents of the cyst were aspirated using an aspiration canula; greasy yellow fluid was obtained in cases 1 and 2, which solidified to a waxy consistency readily in open air. In case 4, thin watery colourless fluid about 50 ml. was aspirated. At this stage only heavier sebaceous contents, hair and solid portion remained within the lower part of the cyst in case 1 and 2 and only the collapsed cyst wall in case 4.

The grasping forceps was then introduced into the peritoneal cavity through 5 mm. portal on right side. The utero-ovarian ligament was grasped and traction exerted on the ovary and ovary lifted up against the anterior abdominal wall. Another 3 cm. lower abdominal transverse incision was made on left through the deep fascia but not through peritoneum. This incision was made over the location of ovary against abdominal wall checked laparoscopically. One long Kocher's forceps was inserted through this incision and under laparoscopic vision it was forced through the peritoneum and ovary containing the cyst and tumour was pulled up flush against the peritoneum. Perinoneal incision was extended laterly over the cyst just enough to deliver the cyst to exterior. Deflation of peritoneal cavity at this stage is advantageous as the stretch on ovarian pedicle is thereby reduced.

In cases one and two ovarian cyst was excised and remaining normal sleeve of ovarian tissue was returned back to abdomen after applying two or three haemostatic catgut stitches.

In case 3, total ovariectomy was done and ligated pedicle along with ipsilateral fallopian tube was returned back to abdomen.

In case 4, the collapsed cyst wall after initial laparoscopic aspiration of fluid content was dissected and removed from between the two leaves of broad ligament and the defect in broad ligament repaired with chronic 2-0 interupted stitches.

In all these cases the lower abdominal incisions were closed in layers and the pneumoperitoneum re-established. Pelvic cavity was thoroughly lavaged with ringer lactate. The small ports were then stitched with interrupted silk stitches.

RESULTS

In cases 1, 2 and 3 both fallopian tubes were normal and opposite ovaries were normal. In case 4, the patent left tube

Table I

Details of the patients operated by Laparoscopically assisted transparietal technique

Case	Age (years)	Parity	Community	Symptom	Diameter of cyst (cm.)
1	26	0	Hindu	Nil	5
2	31	1 + 3	Hindu	Irregular Menses	3.5
3	20	0 + 1	Muslim	Amenorrhree 3yrs.	5
4	25	1 + 1	Hindu	Nil	6

which was initially stretched on the para-orvarian cyst and thus seperated from left ovary was after the procedure in normal relation with left ovary.

The cut surface of ovarian tumour in case 3 shows a yellowish pink-lesion in the centre. The capsule was intact. Histology in case 1 and 2 was dermoid cysts and case 3 was Sertoli-leydig cell tumour of intermediate differentiation.

None of these patients had post-operative ileus. The oral intakes was started in the next morning. They were discharged home after 48 hrs. The stay in the hospital could have been further reduced; since we had limited experience with the procedures, we preferred to exercise caution by delaying their discharge. All operations were performed without complications. Operating time ranged from 60-80 minutes. Blood loss in each case was minimal. Due to through pelvic lavage, there was no peritonitis in any of the cases.

DISCUSSION

The combined technique described here was greater benefits than conventional laparotomy or laparoscopy alone.

By exteriorizing the ovary, the lesion can be entirely orientated, studied and sampled for pathology. By applying conventional clamp to pedicle, it can be suture ligated. In our case No. 4, the peritoneum of the broad-ligament could be repaired after removal of the para-ovarian cyst.

The advantages over the conventional laparotomy are many.

The benefits to the patients are numerous. Morbidity of repeated anaesthesia is minimised as diagnostic and therapeutic proceduers are normally routinely combined. Additional benefits are - reduction in pelvic adhesions due to less dehydration of peritoneal surfaces, almost no post-operative ileus, ability to start oral intake early, less pain, less discomfort, less medications, shorter stay in the hospital, improved cosmetic results and most important for the employee (patient) and employer - the reduction in total cost of the treatment in terms of medication, stay in the hospital and early return to work.

Most of the patients can resume normal activity within 7-10 days in contrast to standard 4 to 6 x weeks time

suggested after laparotomy.

Remote post-operative complications like incisional hernia, keloid-formation, hyperesthesia are less common as compared to standard laparotomy.

The greatest benefit to the surgeon is a sense of achievement, progress and joy due to rewarding appreciation of the patient.