EARLY POST PARTUM LAPAROSCOPIC STERILIZATION

by

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Laparoscopic sterilization is one of the recent techniques for female sterilization, well accepted all over the world. The aim of this study was to find out if laparoscopic sterilization could be extended to early post partum period to minimise the hospital stay of the patients.

Material

From 1st April 1974 to 15th Sept. 1976, 882 female sterilizations have been carried out in the author's unit in the Mayo General Hospital, Nagpur. Of these 423 were laparoscopic sterilizations, and 150 of them were in the early post partum period. Barring few abdominal sterilizations the rest were performed by the author personally.

Procedure

All cases were examined routinely for medical check up and routine investigations like, haemoglobin %, urine examination. All cases were free from gross heart and lung diseases.

Anaesthesia

In the beginning, most cases were given 10 mgms of Calmpose (Diazepam) and 50 mgms of Pethidine Hydrochloride I.V. by two different syringes. Some cases were done with only local infiltration anaesthesia without any I.V. medication. Majority had no pain but a few complained of some discomfort. In the post partum cases 2½ litres of Carbon Dioxide was instilled into the peritoneal cavity, instead of 2 litres used for non-puerperal cases.

Technique

The tubes were approached by a single incision at the lower border of the umbilicus. In the post partum cases instead of the Rubin's cannula, a No. 8 or 10 suction curette was used to steady the uterus. I.V. Ergometrine was given before starting the laparoscopy so that the uterus was well contracted. In the early post-partum cases the tube was grasped 1 cm away from the cornual end and a piece was removed, taking care to avoid any big vein in the vicinity in the mesosalpinx. In these cases the cornual end is very vascular and hence the tubes are not coagulated near the cornual end, as in the cold cases.

Visualization of the tubes is very easy in the cold cases and in cases with Medical termination of pregnancy; but in early post partum cases and cases where M.T.P. is done with saline the tubes were well behind the uterus and very near the lateral wall of the abdomen and were not easily located in the beginning till practice was achieved. Very often it was observed that in the early post partum cases there was a thin layer of omentum in front of the uterus and it did not move with the added Trendelenberg position, but could be moved with the gentle movement of the cautery forceps.

It is essential to take another precaution while introducing the needle and trocar and cannula lest the enlarged

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uterus is damaged. So in these cases it is advisable to introduce the needle and the trocar and cannula pointing not towards the pelvis but directly backwards with a very slight tilt downwards, after palpating the uterus.

In the saline M.T.P. cases the size of the uterus was about 16 to 18 weeks, which was also roughly the size of the uterus in post partum cases. If the two are grouped together then the total of post partum cases comes to 150.

Time of Operation in Post Partum Cases

The uterus should be atleast 2 to 3. fingers below the umbilicus at the time of the operation. In this series the postponement of operation on the 4th day or beyond was not due to any technical difficulty but due to departmental convenience to get the operation theatre and obtain atleast a junior anaesthetist to stand by. Lately we do not require even the stand by anaesthetist.

Day of Delivery	No of Lap. Sterilizations
1st day	Nil
2nd day	7
3rd day	23
4th day	34
5th day	29
6th day	16
7th day	12
8th day	5
9th day	Nil
10th day	2
11th day	3
12th day	
13th day	1
14th day	Nil
15th day	2
20 and above	2
	137

Thus of the 150 cases reported above 137 were in the early post partum cases and 13 were after saline M.T.P. either on the next day of abortion or later as the departmental convenience suited.

In 1967 Steptoe suggested that laparoscopic sterilizations should not be done in the early post partum cases but one should wait for about 8 weeks after delivery, because the uterus is too big and fragile. However, Steptoe (1973) has now changed his view. The author feels that with practice post partum sterilization is not difficult. This procedure has reduced the hospital stay of the patients.

Complications

Various complications have been reported after laparoscopic sterilizations. Complications like surgical emphysema of the anterior abdominal wall, cardiac and respiratory distress during induction of pneumoperitoneum, were not observed in this series. Perforation of the bowel with the needle or trocar have been reported but non occurred in this series. In one case only there was injury to the uterus, as while the trocar was being pushed the assistant simultaneously pushed the uterus up. Immediate laparotomy was done and injury dealt with. In one case there was bleeding from the cornual end, which required exploration. Hence it is recommended that the tube in the post partum cases should not be cauterized near the cornual end but atleast one cm. away. There was no case of bowel injury in the 150 cases reported above.

Follow up

There is no big follow up of these cases so far, hence it is difficult to comment on the failure rate and other facts.

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Reference

1. Steptoe, P. C.: Quoted from Population Report, Series C No. 2 March 1973.