Abdominal Cocoon Syndrome – A Case Report

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A 30 year old primipara married 12 years with no living child was investigated for secondary infertility. She had her first pregnancy 10 years back which was an uneventful delivery. The neonate died within 1 week after delivery due to aspiration Her menstrual history, general examination and gynaecological examinations were normal. Investigations for infertility revealed that the male factor was normal.

She was undertaken for a diagnostic laparoscopy, chromotubation under general anaesthesia after a pre-anaesthetic checkup. On examination, the abdomen was soft, no mass was felt. Per speculum examination revealed a healthy cervix with a patulous os. The uterus was parus, anteverted and the fornices were free, the uterocervical canal measured 3 inches.

Pnumoperitoneum was attempted with CO_2 using veress needle. However, after insertion of the trocar and canula followed by laparoscope, it was thought to be extraperitoneal. Repeated attempts to enter the peritoneal cavity failed. Hence, it was decided to undertake an open laparoscpy. The incision was extended upto 2 to 3 cm but as peritoneum could not be opened even after multiple attempts. A decision to proceed for laparotomy was taken because of failure to open the peritoneum and with suspicion of any injury to intraperitoneal structures.

Abdomen was opened by a midline subumbilical incision. After incising the rectus sheath the parietal peritoneum was found closely adherent to the small bowel loops which were slightly distended. Hence a general surgeon was called with a provisional diagnosis of abdominal cocoon syndrome. The adhesions were found to be flimsy but were closely adherent encasing the whole bowel. These could be separated with finger dissection and sharp dissection. There was no evidence suggestive of tuberculosis. A 1 x 1 cm perforation on small intestine about 3 feet from the duodenum was found and was repaired in 2 layers. All small and large bowels were separated. It was a difficult task to enter the pelvic cavity. The internal reproductive organs were also covered with the same thin but densely adherent membrane. There was a right sided hydrosalphinx of about 10 x 6 cm with spongy consistency. Right ovary was not visualised separately. Left tube could not be visualised. Left ovary appeared normal. Uterus appeared normal. POD was completely obliterated with this membrane between rectum and uterus. Right sided salphingo-oopherectomy was performed. Blood loss was minimal and abdomen was closed in layers. She had a stormy postoperative course and finally recovered on 11th postoperative day. Histopathological examination was consistent with chronic inflammation. The final diagnosis was abdominal cocoon syndrome.

The case is reported because of its rarity and due to its asymptomatic status. It forms one of the contraindications to laparoscopy as it is difficult to enter the peritoneal cavity. Abdominal cocoon was reported in olden days in young adolescent girls without any history of previous laparotomy or documented peritonitis. Retrograde menstruation with superimposed viral infection and subclinical peritonitis was thought to be one of the underlying causes.