ANAESTHETIC MANAGEMENT OF A PATIENT WITH A GIANT OVARIAN TUMOUR: A CASE REPORT

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ABSTRACT

Due to advanced medical sciences and improved modern technology, giant tumours are rarely found now-a-days. In addition to basic pathology, these are mainly characterised by its huge size, causing pressure symptoms. Here, we are reporting a case of giant ovarian tumour of 35kg weight successfully removed and managed by careful and meticulous peri-operative management.

KEYWORDS

Giant Ovarian Tumour, General Anaesthesia, Supine Hypotension Syndrome, Re-Expansion Pulmonary Edema.

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CASE REPORT

A 35 years old female of very thin built presented with a huge abdominal swelling. The swelling has gradually increased to present size over a period of five years. Weight of the patient was 70kg, abdominal girth was 140cm with stretched umbilicus and prominent abdominal superficial veins. Patient was dyspnoeic on supine position. Apart from routine investigations, ECG, ECHO, ABG, Liver Function Test was done and results were within normal limits. Pulmonary Function Test shows restrictive type of lung disease with FVC 77.3%, FEV₁ 75.4%. X-ray chest showed upward displacement of diaphragm. CT abdomen showing both solid and cystic masses arising from right ovary occupied both pelvic and abdominal spaces. Patient was posted for exploratory laparotomy and taken up for surgery with 2 Units of whole blood and 3 units FFP in hand.

In the OT table, patient on semi-recumbent position, pre-medicated with injection Pentaprazole, Inj. Ondansetron and Inj. Glycopyrolate 60 minute prior to surgery. Monitors like ECG, O₂ saturation (SPO₂) Non-Invasive BP (NIBP) and temperature monitors were connected. A16G I.V. line secured in a forearm vein. In-room air O₂ saturation was 92%. Patient in semi-recumbent position adequately pre-oxygenated and pre-medicated with Inj. Midazolam and Inj. Fentanyl. She was induced with Inj. Thiopentone. Rapid sequence intubation was done with Inj. Succinylcholine with cricoid pressure. Endotracheal intubation was done with cuffed ET tube and maintained by IPPV with O₂; N₂O and 0.5-1% isoflurane. Oxygen saturation fall to 85-87% after premedication even ventilation with 100% O₂.

After abdominal incision, O₂ saturation was improved to 95%. Right IJV and right radial artery cannulated for invasive monitoring. Continuous ECG, SPO₂, HR, IBP, CVP, UO, temp and ABG monitoring was done. Huge mass with both solid and cystic components arising from right ovary was removed. Intraoperative BP was maintained between 150-160mmHg (Systolic) and 90-100mmHg (Diastolic). After removal of tumour, there was severe bleeding and sudden fall of BP.

Which was managed with crystalloid, blood and FFP. At the end of the surgery, patient was reversed with Inj. Glycopyrolate and Inj. Neostigmine and extubated. For further monitoring, patient was shifted to ICU and analgesia maintained with Inj. Tramadol 50mg IM 8 hourly and Inj. Diclofenac Sodium 75mg IM 8 hourly. Patient was haemodynamically stable. On third post-operative day, patient's weight was 35kg. Post-operative x-ray of chest revealed adequate expansion of lungs.

DISCUSSION

We present the anaesthetic management of a patient with a giant ovarian tumour without major complications. There has been considerable debate over the merits of preoperative drainage of the cyst. The potential hazards of drainages are the possibility of intra-peritoneal spillage and seeding of ovarian carcinoma and increased risk of intraabdominal infection, haemorrhage and adhesions.⁽¹⁾ Our case being a solid tumour, preoperative drainage was not attempted.

General Anaesthesia administration in giant abdominal tumours have several associated risk.^(2,3) Circulatory and respiratory management are usually difficult. Due to these risks, it has been recommended that the tumour mass is to be reduced preoperatively to prevent circulatory and respiratory depression which is possible only cystic type of masses.^(2,3)

The difficult parts in anaesthetic management are 1) The influence on circulation and respiration due to pressure on the abdominal great vessels and lungs. Therefore, we put the patients on semi recumbent position. It prevents hypoxemia due to compression of lungs as well as supine hypotension syndrome. 2) A risk of aspiration during intubation was prevented by cricoid pressure. 3) Risk of massive bleeding was managed with crystalloids, blood and FFP. 4) Rapid expansion pulmonary oedema may develop due to rapid expansion of chronically collapsed lung through a mechanism of increased pulmonary vascular permeability.^(4,5) To prevent RPE, we choose to re-expand the collapsed lungs very slowly and maintain a relatively low TV.

The post-operative course was relatively uncomplicated in our patient. In this case coagulation abnormalities were not seen. Six of eight reported cases encounter post-operative ventilator difficulty.^(6,7,8) Post-operative pain is one cause of it which was managed with inj. Tramadol and inj. Diclofenac sodium.

Intraoperative and postoperative hypothermia, which is a major complication, which was avoided by giving warm saline infusion to prevent intraoperative heat loss.

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Gaseous distention due to intestinal ileus has been reported in many cases.⁽⁹⁾ However, in our case, paralytic ileus did not develop and oral feeding started on 3rd postoperative day. The patient was discharged on 12th postoperative day.

This patient was at risk of deep vein thrombosis and pulmonary embolism, which was managed by giving low molecular weight heparin and early mobilization.

Fig. 1: Large Abdominal Mass

Fig. 2: Preoperative X-Ray Chest

Fig. 3: Post-Operative X-Ray Chest

Fig. 4: CT Scan Abdomen

Fig. 5: Removal of Tumor Mass

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