Anaesthetic Management of a 40-hour Complex Recurrent Sacral Chordoma Resection: A Case Report

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Patients with malignancies who were not candidates for tumour resections in the past are now presenting for extensive oncological resections. Complications of these complex surgeries include massive haemorrhage, coagulopathy, haemodynamic instability and prolonged intensive care unit stay. We report our experience with the anaesthetic management of a 40-hour complex recurrent sacral chordoma resection.

A 32-year-old woman post pelvic exenteration for sacral chordoma presented for resection of a large recurrent sacral chordoma which extended into the uterus, spinal canal and retroperitoneal structures. The surgery involved six surgical teams (Orthopaedics, Gynaecology, Urology, Colorectal, Vascular, Plastics) and four anaesthetic teams. Surgical procedures performed included laparotomy, adhesiolysis, total hysterectomy, bilateral salpingo-oophorectomy, left common to external iliac vein bypass graft, wide resection of sacral chordoma, spinopelvic instrumentation and reconstruction, and gluteal rotational flap to sacral defect. Total estimated blood loss was 17 litres. A total of 45 units of packed red cells, 5 litres of fresh frozen plasma, 3 units of pooled platelets and 20 units of cryoprecipitate were transfused, guided by thromboelastometry. Massive blood transfusion was complicated by hyperkalemia which was promptly corrected. Intravenous thyroxine was given in view of massive haemorrhage and transfusion, upon consultation with Endocrine team. Arterial blood gas at the end of surgery showed normal acid-base status without electrolyte derangements. The patient was kept intubated postoperatively and transferred to the surgical intensive care unit for further management. She was extubated on the second postoperative day and underwent intensive inpatient rehabilitation before hospital discharge on postoperative day 50.

Anaesthetic management of patients undergoing complex oncological surgeries is challenging. Good communication and teamwork among multidisciplinary surgical and anaesthetic teams is crucial. Meticulous care, anticipating the complications with timely treatment can lead to excellent outcomes.