

00434 **Anaesthesia in Cyto-reductive Nephrectomy With Inferior Vena Cava Thrombectomy and Caval Reconstruction: A Case Report**

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Aims: Renal cell carcinoma (RCC) has the recognized propensity of invading the renal vasculature, potentially metastasizing to the inferior vena cava (IVC). In such cases of metastatic RCC, cyto-reductive nephrectomy with IVC thrombectomy prior to chemotherapy is the mainstay of treatment. To prevent tumour embolization from the IVC and its disastrous complications, cross-clamping of the vessel with cardiopulmonary bypass (CPB) may be required intraoperatively. The decision on the need for CPB necessitates extensive and careful preoperative planning across multiple disciplines. In a setting where CPB is not readily accessible, literature is scarce on management approaches.

Methodology: We report the case of a 42-year-old Chinese male (60kg, 177cm) who underwent open radical right nephrectomy for a Mayo Level III RCC. After comprehensive discussion involving surgical teams (Urology and Vascular) along with the Oncology and Radiology service, he was offered radical nephrectomy with IVC thrombectomy to reduce tumour burden, followed by chemotherapy. Based on the tumour location and degree of tumour adherence to the IVC, CPB was deemed unnecessary. The surgery was planned as a combined urological and vascular procedure in a hybrid operating theatre. Intraoperatively, invasive lines were inserted with cardiac output monitoring. An IVC filter (CapturexR) was then deployed pre-emptively to prevent tumour embolization. Radical right nephrectomy then proceeded without incident. The patient required Noradrenaline intraoperatively (up to 0.05mcg/kg/min) to maintain a mean arterial pressure of 60mmHg.

Result: Post-operatively, he was admitted to the critical care unit and was subsequently transferred to high dependency on the first post-operative day (POD). Histology confirmed renal carcinoma of the clear cell variety. He remained hemodynamically stable during his inpatient stay and was discharged well on POD5.

Conclusion: In formulating approaches to complex surgeries, close communication across relevant disciplines is of paramount importance. In this case, a multidisciplinary approach avoided excessive procedures while maintaining provision of optimal care.