Introduction & Objectives: The aim of our study is to determinate the effectiveness of the Robot assisted approach for the treatment of renal cancer with vena caval thrombectomy.

Materials & Methods: The present case is of a 59-year-old man, BMI is 25. He is a non-smoker. Due to the appearance of macrohaematuria he performed abdominal CT scan and MRI documenting a heteroformed lesion on the right kidney that completely occupies the lower-middle III (11x6x9 cm), with irregular and ill-defined margins as if due to infiltrative phenomena, infiltration of the hilar structures with complete thrombosis of the ipsilateral renal vein extending to the inferior cava.

Results: The patient underwent robot assisted radical nephrectomy with vena caval thrombectomy, using the Xi Da Vinci System. During the surgical procedure during cavectomy there was profuse bleeding with blood loss of 1750 cc requiring transfusion of concentrated red blood cell units. It was not necessary to convert the surgery to open.

Conclusions: Robot assisted approach is safe and provides good approach to renal cancer with cava vena thrombus, even in the presence of intraoperative complications.