



## Giant Retroperitoneal Paraganglioma

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### Clinical Image

Paraganglioma (PGL) is a rare retroperitoneal tumor and originates from neural crest cells, accounting for 1% to 3% of retroperitoneal tumors [1]. Clinically, it is divided into functional PGL and non-functional PGL according to the presence or absence of secretory function. PGL is rich in blood sinus, prone to bleeding and necrosis, which manifested as the necrosis at the center and edge of tumor on Computed Tomography (CT). The solid part would show a significant strengthening during the arterial phase and continued to strengthen during the delay phase on enhanced CT. PGL is not sensitive to radiotherapy and chemotherapy. Surgery is the only effective treatment. If the tumor is larger than 6 cm in diameter or considered malignant before surgery, open resection is preferred [2,3].

A 71-year-old man has a hospital spread due to back pain for three days. Abdominal CT revealed a low-density shadow of the mass around the head of the pancreas. The partition-like enhancement



**Figure 1:** A: The CT scan shows a rounded mass in the right front of the abdominal aorta. The boundary is clear and there is a gap inside. The maximum section is about 7 cm × 6.4 cm. B: Arterial phase shows necrosis at the center-edge of the tumor, the substantial part and interval are obviously strengthened, and the necrotic cystic zone is not strengthened; C: Portal phase shows substantial enhancement.

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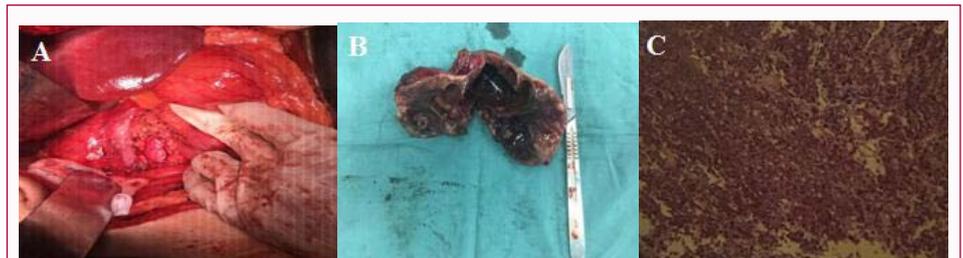
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**Figure 2:** A: The view after the tumor was removed; B: Gross view: After the tumor is cut, there are more intervals in the area, and some areas are necrotic and cystic (scale 1:2); C: microscopic view: pathologically, the tumor cells are arranged in a small nest (HE, x40).

is visible on arterial phase, and the size is about 7 cm × 6.4 cm (Figure 1). Below the head of the pancreas, to the left of the right ureter, between the inferior vena cava and the abdominal aorta, a 7 cm × 6.5 cm mass is visible (Figure 2A,2B). Postoperative pathological considerations are extra-adrenal Paraganglioma with hemorrhage and cystic changes (Figure 2C). Immunohistochemistry was performed using a panel of antibodies to tumor markers, which showed that the tumor cells were positive for Cga, Syn and negative for AE1/AE3, EMA. The cell proliferation marker, Ki67 showed a cell proliferation rate of <5%.

### References

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