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# Adrenal carcinoma in a potential organ donor: a case of "unacceptable" oncological risk for transplantation

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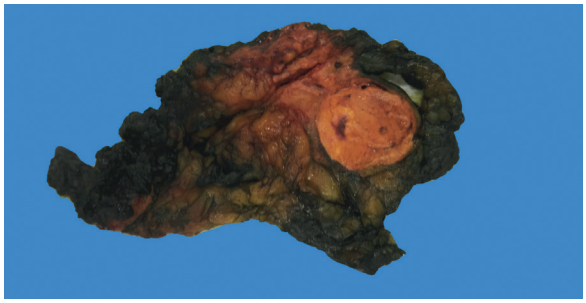

**Figure 1.** Macroscopic view of the adrenal lesion. A roundish, yellow-ochre mass of 38 g, 2.7 cm in maximum diameter, with haemorrhagic-necrotic micro-foci is observed

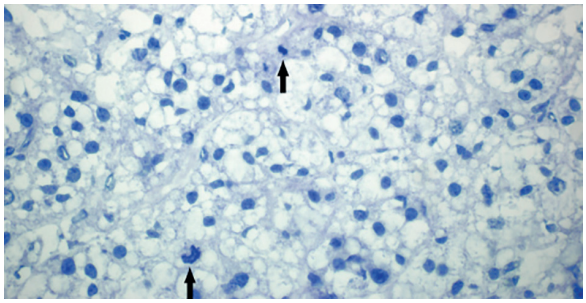

**Figure 2.** Microphotograph of frozen histological section (toluidine blue staining; microscopic magnification: 40x), showing the presence of scattered mitoses in the neoplastic cells (arrows)

Adrenal carcinoma is a rare aggressive neoplasm originating from the adrenal cortex, with high risk of lymph node and blood metastases [1], that exclude the transplantability of organs by leading to an "unacceptable" oncological risk for the recipient. The images refer to a right adrenal neoplasm accidentally discovered in a 77-year-old brain-dead male who was a candidate to become an organ donor. The adrenal gland was sent for fast histopathological examination (fig. 1), to quickly determine whether or not to proceed with the transplantation. An examination was performed on multiple frozen sections. Weiss histological criteria [2] were applied: diffuse architecture greater than ⅓ of the lesion: no; clear cell tumour component ≤ to 25%: no; nuclear G3/G4 (Fuhrman's grading): yes; mitotic count >5/50 high power field (HPF): yes (7 mitoses/50 HPF), (fig. 2); atypical mitotic figures: yes; necrosis: yes; venous invasion: no; sinusoidal invasion: no; capsular invasion: yes. Findings consistent with adrenal cortical neoplasia showing at least 3 positive criteria, suggesting a malignant behaviour. This histological report stopped transplantation procedures. Weiss' criteria were also applied on formalin-fixed and paraffin-embedded histological sections, confirming it to be adrenal carcinoma and demonstrating the possible applicability of these criteria even on frozen histological sections.

## References

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