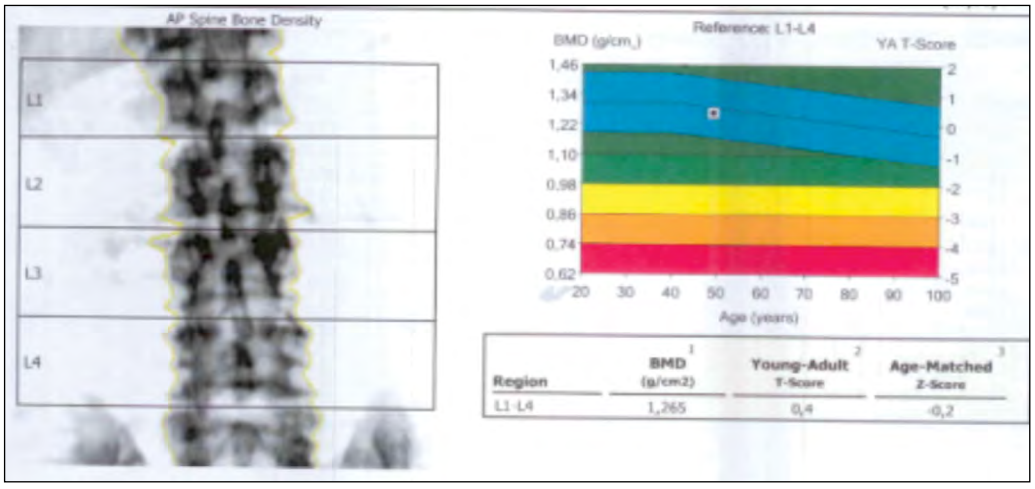

FIGURE 3. *Normal central DXA (lumbar spine, GE Lunar Prodigy device)*

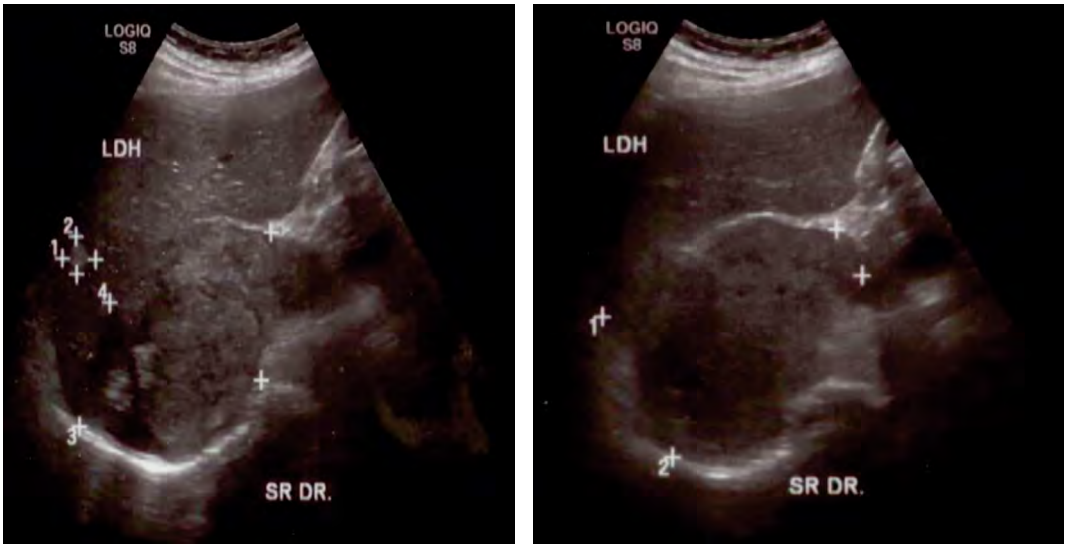

FIGURE 4. *Large right adrenal tumour with liver invasion at abdominal ultrasound (different sections)*

mour. It is less possible to be associated with a synchronous medullary thyroid cancer since the values of calcitonin were only mildly increased and the thyroid ultrasound pattern was not suggestive. Fine needle aspiration might have been an investigational tool but not a feasible option due to the emergency aspect. MEN 2A (multiple endocrine neoplasia) syndrome also involves at least one adrenal tumour and increased calcitonin but this was not such a case (11). However, adrenocortical carcinoma as this case is usually included in classification of neuroendocrine tumours (12).

Cancer-related hypercalcemia

In this case hypercalcemia was a paraneoplasic expression which was not caused by bone metastasis as revealed by whole body bone scintigram but most probable by adrenal cancer-derivate PTH related protein (PTHrP) (13). The suppression of PTH seems consecutive to hypercalemia while DXA exam was irrelevant for the present circumstance (14). Up to 30% of malignancies associate high serum calcium and it usually represents a poor prognosis (14). PTHrP production or humoral hypercalcemia represents the most common subtype of hypercalcemia but PTHrP is not assessed in daily practice (15,16).

Adrenocortical carcinoma-associated anaemia

In this particular case the clinical presentation a part from abdominal pain and mass was marked by rapidly deterioration of haemoglobin levels. All the hematologic tests showed that the only cause was most probably intra-tumour haemorrhage. The potential alternative mechanisms are: primary adrenal insufficiency in cases with adrenal cancer and contralateral metastases that display more than 90% from adrenal parenchyma, male hypog-

onadism, and bone marrow metastasis (17). Cystic transformation of an adrenal tumour because of the necrosis is possible in adrenocortical carcinoma but it is more frequent in pheocromocytoma, especially in children (18,19).

Poor prognosis of adrenal cancer

The present case introduces a malignant adrenal tumour (although there was not pathological confirmation) with a fatal outcome within days since presentation at Endocrinology Department. Generally a poor prognosis is expected in this type of malignancy despite the progress of technology and therapy (20). Cortisol producing subtype of adrenal cancer has the highest rate of mortality (as was this case) when compared to the subtypes with other endocrine profile (21).

CONCLUSION

Severe bleeding at the level of the adrenal carcinoma causing symptomatic anaemia is a rare event. The prognosis in adrenocortical carcinoma is poor and the presence of humoral hypercalcemia represents a sign of short survival time as well as active cortisol production.

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