A rare case of adenomatoid tumour presented as back pain: case report and brief review of the literature

Abstract

Adenomatoid tumours of mesothelial origin are rare neoplasms. The incidences of these findings make difficult the differential diagnosis in most cases. The newest evidence obtained from the ultrastructural and immunohistochemical findings indicate that adenomatoid tumours are of a mesothelial nature, although differential diagnosis is challenging, as in the case of a 49 yr male presented with cough and back pain.

Keywords: adenomatoid tumour, rare neoplasms, adrenal gland

Background

Adenomatoid tumours are presented as rare neoplasms of mesothelial origin, with different location, which can easily mimic specific diseases presented as adrenal incidentelomas, eg pheochromytoma, Cushing syndrome or adrenal carcinoma. The incidence does not allow providing specific pathognomic characteristics and the differential diagnosis may be proven challenging.

Case presentation

NK, a 49 year old mechanic engineer, without remarkable medical history, non smoker, was examined by cardiologist (IM) & pneumologist (NB) due to atypical chest & mostly back pain., after having visited public hospital (2th 2017). Where blood count, troponine, biochemical analysis, chest Xray & heart doppler revealed anything notable. The chest ct scan ordered by NB revealed multiple shadings up to 3mm, propably as remains of lung infection. The findings where constant of a large eggsize tumour, weight 95 gr, dimension of 8x6,5x1,8 cm, with smooth external surface. The patient did not complain for fatigue, weight loss, tachycardia, palpations or perspirations and the findings where of inotic places. The immunochemistry revealed CK 27 +, Vim (+), epitheliods cells are in some locations wasllowed in dense stroma. Takopyia of the analysis was ordered. The first revealed any oversecretion of cortisole (F30min 22.2μg/dl), meaning that no need of replacement is required (Figure 3) (Figure 4). The second measurement a slight increase of blood pressure (155/90mmHg). Nevertheless, the low dosage dexamethasone suppression test was negative for secretion (F:0.6) Free plasma normetanephrines & metanephrines (Mayo Clinic) revealed any abnormal results. VMA was repeated & proven within normal ranges at the second measurement.

An expert opinion was kindly given by AV, who recommended surgical removal due to the characteristics, dimension & hormonal measurements of the mass.

Radiologic findings

A localized specific adrenal CT scan revealed a hypodense, clear delimited mass of the right adrenal gland, with dimensions of 8x8x6.6 cm, without contrast enhancement, measured of 11 Housefield units., mainly characterized by the radiologist as adenoma see Figure 1.

Surgical procedure

MR NM was consulted by GS, who operated the patient by open technique (04/05/2017), without any serious postsurgical complication, other than a mild lung infection which recovered easily after antibiotic treatment. The whole procedure durated three days.

Histopathologic examination

The findings where consistent of a large eggsize tumour, weight 95 gr, dimension of 8x6,5x1,8 cm, with smooth external surface. The epitheliods cells are in some locations wasllowed in dense stroma of inotic places. The immunochemistry revealed CK 27 +, Vim (+), Calretinin(-), Chromogranin (-), CK20(-), findings which represent mostly adenomatoid tumour of right adrenal gland (Figure 2).

Mr NK, was reassured that the mass, although seemed as of adrenal origin was categorized as adenomatoid tumour, meaning that the prognosis, after the removal may be better than (eg) of an adrenal carcinoma & the possibility of malignancy remains low.

The patient reexamined 6 mo later, where the adrenal axis has been examined through act suppression test, with normal response of cortisole (F30min 22.2μg/dl), meaning that no need of replacement is required (Figure 3) (Figure 4).
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Discussion

Adrenal adenomatoid tumors are derived from mesothelial rests in the adrenal gland.1,2 During embryogenesis there is close relationship between the adrenal glands and the Mullerian tract, so mesothelial rests could be present in this unexpected site such as the adrenal gland. These tumors are mostly nonfunctional, asymptomatic and discovered incidentally, during radiological examinations, surgery or on autopsy. Adenomatoid tumors are not associated with diabetes, but seven cases were found to be associated with hypertension.3

Acknowledgments

None.

Conflict of interest

No conflicts of interest. Informed written consent was obtained by the patient.

References