Reviewer's report

Title: Minimal-fat Angiomyolipoma Mimicking a Renal Cell Carcinoma

Version: 1 Date: 25 October 2012

Reviewer: Daniel Athanazio

Reviewer's report:

The authors present a rare case of angiomyolipoma with small fat content and multiple calcifications which led to the preoperative impression, based on imaging studies, of epithelial malignancy of the kidney.

Major concern. It is not uncommon that angiomyolipomas (AMLs) may have a small content of fat tissues. In these cases, imaging studies will not easily recognize AMLs. The authors indeed include the citation that “AMLs accounts for 5.7% of renal masses suspected to be RCC”. The rare finding of the report is the presence of calcifications which is a rare but already well described in the literature.

Abstract and elsewhere. “mimicking a renal cell carcinoma” is a misleading expression. All references to potential confusion between AML and RCC should emphasize that it is “based on imaging studies”. As (briefly) described on the pathology report, it seems that there was no difficulty to obtain the correct diagnosis at the microscopic level.

The difficulty to obtain a preoperative diagnosis in AMLs with small fat content is indeed described in reference book of WHO.

Reference: Eble JN, Sauter G, Epstein JI, Sesterhenn IA (eds). Pathology and Genetics of Tumours of the Urinary System and Male Genital Organs. Lyon, IARCPress, 2004

Example. Introduction. First line. AMLsof the kidney can be diagnosed PREOPERATIVELY…

Case presentation. The microscopic description is very brief. Many cases of solid AMLs with small fat content represent epithelioid AMLs. The authors should clarify if it is the case. If it is the case, many parameters that may predict aggressive behavior should be described. In a series of 40 EAML with atypical cytology (now arbitrarily defining EAML with at least 5% epithelioid morphology). In this series, the following features of aggressive disease were listed: lymphovascular invasion (n=3), renal vein invasion (n=3), hilar involvement (n=5), perinephric fat involvement (n=6), recurrence or metastasis (n=9) and death (n=4). The authors elaborated a predicted model of clinically malignant course (able to identify 78% of malignant and 100% of benign outcomes) based on the following morphologic criteria: # 70% epithelioid cell component; # 2 mitotic figures per 10 hifg-power-fields; atypical mitotic figures; and necrosis.


Discussion: “There are only four case reports on AMLs with calcification [2-5]. RCCs are highly suspected when encountering solid renal tumors with both fatty components and multiple calcifications”. It is very strange to state that RCCs may contain intratumoral fat and that is a clue for the diagnosis.

**Level of interest:** An article of insufficient interest to warrant publication in a scientific/medical journal

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests