Reviewer's report

Title: Challenging dedifferentiated liposarcoma identified by MDM2-amplification, two case reports

Version: 2 Date: 7 May 2014

Reviewer: Agnes Neuville

Reviewer's report:

Minor Essential Revisions

1. The use of term “liposarcoma with low differentiation” can be confusing. MDM2 amplification in undifferentiated sarcoma, correlated with location and clinical presentation, is characteristic for dedifferentiated liposarcoma (DDLPS). It will be more appropriate to use only the term DDLPS.

2. In the Table 1, complete the code 8851/3 for well differentiated liposarcoma/atypical lipomatous tumour by the code 8851/1, according to the last WHO Classification of Soft Tissue Tumours.

3. In the Table 1, suppress the term “mixed liposarcoma” which is not in the last WHO Classification of Soft Tissue Tumours (Fletcher CDM, et al. World Health Organization classification of tumours of soft tissue and bone. 2013).

4. MDM2 amplification is observed in low grade osteosarcoma arising on the surface of bone, but not in osteosarcoma of soft tissue that is a complex genomic sarcoma without recurrent MDM2 amplification. In consequence, the authors should modify in the abstract and in the fourth paragraph of the chapter conclusion the discussion on the differential diagnosis between osteosarcoma of soft tissue and osseous heterologous component of DDLPS.

5. In the third paragraph of the chapter conclusion: “only a fraction of pleomorphic liposarcoma has MDM2 amplification”. Pleomorphic liposarcoma is a complex genomic sarcoma with lipoblasts, but without MDM2 amplification. It has been recently demonstrated that even without a well-differentiated component, a peripheral undifferentiated sarcoma with MDM2 amplification corresponds to a dedifferentiated sarcoma (Le Guellec et al, Am J Surg Pathol. 2014, 38:293-304). I think that a clear message should be sent about the different types of liposarcoma: no MDM2 amplification in pleomorphic and myxoid liposarcoma.

6. When the name of the gene is used, it should be italicized (MDM2).

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.
Declaration of competing interests:

No competing interests