Reviewer's report

Title: Association between TGFBR1*6A and susceptibility to osteosarcoma in the case-control study

Version: 1 Date: 7 December 2009

Reviewer: Adela Castillejo

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Yun-Seng Hu et al. examined the TGFBR1*6A in patients with osteosarcoma and the matched controls. They described an association of TGFBR1*6A with osteosarcoma, and established TGFBR1*6A as a risk factor for osteosarcoma in the Chinese population. Their works provided additional evidence for TGFBR1 in carcinogenesis.

Major Compulsory Revisions

1. The study is under powered to detect differences between cases and controls. The authors should acknowledge this weakness.

2. This is a hospital-based case-control study with 168 subjects. The controls have been selected from the same hospital. A question is which diseases they had and is there any association between the exposure of interest and those diseases. More information should be provided about cases and controls.

3. The statistics from Table 1 in the Additive model is not correct, authors should calculate the p for trend (Armitage’s trend test).

4. Table 2 should be re-make, authors should applied the additive model and use as a reference the ancestral genotype (9A/9A individuals) and not the characteristics.

Minor Essential Revisions

1. In the Abstract the phrase: “The ORs of TGFBR1*6A genotypes in dominant model and in recessive model were 3.48 [95% CI, 1.92-6.17] and 4.03 [95% CI, 1.99-6.87], respectively.” could be eliminated. In contrast, they should include the OR an CI for the association of osteosarcoma with metastasis.

2. Authors should consider to indicate in the title: “in a Chinese population”.

3. In the introduction there is a mistake, TGF-# binds first with TGFBR2 which is the sensor part of the receptor, and then with TGFBR1 which is the tranducer element.

4. In the text authors doesn’t specify if hereditary forms of osteosarcoma has
been excluded from their series.

5. In the discussion the association with metastasis should be discussed in more detailed.

Discretionary Revisions

1. The authors should cite a recent report by Castillejo et al, Int J Cancer 2009, 124(3):608-13, showing that TGFBR1*6A is not associated with bladder cancer.

**Level of interest:** An article of limited interest

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

'I declare that I have no competing interests'