On "Clivus Chordoma: Is It Enough to Image the Primary Site?" (Skull Base 2010;20:111–113)

I read the case report entitled "Clivus Chordoma: Is It Enough to Image the Primary Site?" with great interest.¹ Unfortunately, imaging and histological descriptions are not enough to know the details of the lesions, although it may depend on regulation of the instruction form for submission of articles. However, I wonder if the second lesion in the fifth lumbar vertebral body could be benign. The lesion is completely asymptomatic and was found on magnetic resonance imaging (MRI). The lesion exhibits high signal intensity on T2-weighted images and seems to be located within the vertebra. These limited but peculiar features are characteristic of benign notochordal cell tumor (BNCT).^{2,3} BNCT is a recently recognized benign counterpart of chordoma and is characterized by intraosseous proliferation of benign notochordal cells. X-ray often fails to demonstrate a lesion or shows vague sclerosis or ivory vertebra occasionally. Computed tomography reveals osteosclerosis within bone in addition to no bone destruction or extraosseous tumor extension. MRI reveals low signal intensity on T1-weighted images, high on T2-weighted images, and no contrast enhancement on gadolinium-diethyltriaminepentaacetic acid T1-weighted images. Bone scan usually fails to demonstrate any abnormal uptake. Histologically, BNCT tends to be misdiagnosed as chordoma. The lesion consists of sheets of adipocyte-like vacuolated cells combined with less vacuolated cells. The lesion lacks significant nuclear atypia and intercellular myxoid background. Mitotic figures are not seen. It is not rare to have more than one lesion at the different anatomic level of axial skeleton, and lesions are often found in patients with chordoma.⁴ BNCT does not

require any surgical treatment. Only follow-up examinations are necessary because malignant transformation to chordoma may occur.⁵ The authors do not seem to pay attention to the possibility of BNCT. The patients with multiple chordomas are documented; however, synchronous development of chordoma is very rare.⁶ To prevent unnecessary treatment, the differential diagnosis between chordoma and BNCT should be made carefully when another lesion is found during a general skeletal survey for chordoma patients.

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