

# Letters to the Editor

## Diagnostic Aspiration Cytology of Sacral Chordoma

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To the Editor,

Chordoma is a rarely encountered slowly growing encapsulated malignant tumour of fetal notochord origin affecting axial skeleton, which mainly involves sacrum, base of skull and cervico-thoracic spine in decreasing frequency.<sup>1</sup> On microscopy, the tumour shows varied but characteristic morphological features and a pre-operative fine needle aspiration biopsy (FNAB) examination of the tumour is diagnostic.<sup>2</sup> Very few case reports are available of pre-operative cytological diagnosis of chordoma.<sup>3</sup> We recently came across an unusual case of sacral mass where fine needle aspiration biopsy cytology along with radiological findings clinched the diagnosis of chordoma.

A 70 year old female was admitted with the complaints of gradually increasing pain in lower spinal region, heaviness in anorectal region and constipation for the last five months. On clinical examination, tenderness was felt in sacro-coccygeal region. Per-rectal examination detected a soft cystic mass in pre-sacral region about five centimeters in diameter, pushing the posterior rectal wall anteriorly. Motor and sensory functions of both lower limbs and anal reflexes were normal.

Routine investigations were within normal limits. Radiography examination of sacro-coccygeal region revealed an osteolytic lesion in sacral 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> vertebrae. Computed tomography scan showed osteolysis of sacrum with large soft tissue mass in the pre-sacral region pushing the posterior rectal wall forward.

FNAB of the mass yielded blood stained material. The smears were highly cellular and showed classic physaliphorous cells in small groups and many isolated cells in fibrillary myxoid background. The cells were large, round with one or two centrally placed small round nuclei, fine chromatin network, prominent nucleoli and abundant clear bubbly cytoplasm (Fig.1). Many small round epithelial cells with small round

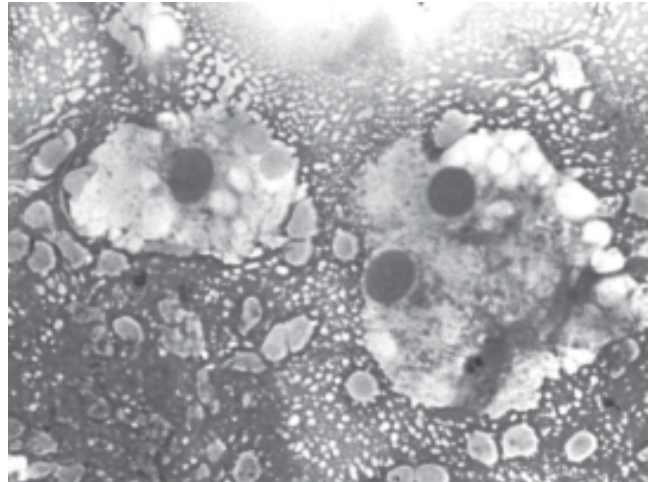


Fig. 1: Smear showing large physaliphorous cells having small round nuclei and bubbly clear cytoplasm (H&E, x 450).

nuclei and scanty basophilic cytoplasm were also present. A diagnosis of chordoma was made on the basis of physaliphorous cells in fibromyxoid background.

The tumour was completely excised under general anesthesia and histopathology examination of the excised mass revealed similar microscopic features as seen in FNAB smears, confirming the diagnosis of chordoma.

In our experience, FNAB is a safe, simple and quick method of early pre-operative diagnosis of chordoma because of the distinct cytological features.

### References

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**Bohra M\*, Mogra N\*\*, Patni A\*, Sujnani S\***

\*Assistant Professor, \*\*Associate Professor, Department of Pathology, RNT Medical College, Udaipur, Rajasthan.

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Reprint requests: Dr Manju Bohra, 86/ 11, Hiran Magri, Vakil Colony, Udaipur, Rajasthan -313001.

Email: dr\_manju10@yahoo.co.in