SACROCOCCYGEAL CHORDOMA DIAGNOSED BY FINE NEEDLE ASPIRATION
A CASE REPORT

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ABSTRACT

A rare case of sacrococcygeal chordoma diagnosed by fine needle aspiration biopsy which was confirmed by histopathologic examination was reported.

A fine needle aspiration was done on a 39 years old man with a single, slowly growth, painless, firm and fixed nodule on the sacrococcygeal region. The smear was stained by Diff Quick. After cytology diagnosis, the nodule was biopsied and had histopathologic examination.

The cytologic features of fine needle aspiration on the nodule revealed physaliphorous cells with abundant and bubbly cytoplasm in a pale blue myxoid background. There was no atypical cell nor mitoses.

Histopathologic features showed lobulated tumor divided by thin fibrous septa. Tumor composed of physaliphorous cells which had round nuclei, well-defined borders cells, with abundant pale, vacuolated, bubbly cytoplasm. The background of tumor cells was blue myxoid stroma. There are no mitoses.

Chordoma is a very rare low grade malignant neoplasm that is thought to arise from remnant of the notochord. The sacrococcygeal region is the site of most commonly involved, accounting for about 50 percent of cases\(^1\). Chordoma generally affect adults, most are in the fifth to seven decades of life\(^1,2\). Males are affected more commonly than females\(^1\). The case was 39 year-old man, one decade younger than others.

The sacrococcygeal region is the site most commonly involved, accounting for about 50 percent of cases. The other site are sellae, sphenoidal sinus, maxilla, nasopharynk, oropharynk and intradural\(^1,3\). The case was on sacrococcygeal region, 1 cm from midline.

The clinical features depend on the site of involvement. Patients with sacrococcygeal chordoma present with low back pain, frequently of long duration\(^1,4\). The case was an asymptomatic nodule.

Chordoma has striking fine-needle aspiration cytologic features that closely parallel the histologic features. The characteristic findings are the abundant background of myxoid ground substance and the large, physaliphorous cells with abundant pale, vacuolated, bubbly cytoplasm and well-defined cells border. The cells have one, sometimes two, rounded nuclei of moderate size, a bland chromatin and small nucleoli. Moderate anisokaryosis is common. Markedly pleomorphic cells with prominent nucleoli and multinucleated giant cells may be present. The
myxoid background material often fibrilar, intensely purple in MGG smears and pale pink in H&E, forms a network encircling individual tumor cells or cells clusters. Microscopically, the case was showed typical characteristic findings of typical chordoma.

The main differential diagnosis is low grade chondrosarcoma and parachordoma. The typical physaliphorous cells are never encountered in chondrosarcoma. Site of the tumor can exclude chondrosarcoma. Some variant of parachordoma has similar histologic features with typical chordoma.

Chordoma has bad prognosis due to its malignant behaviour. It can caused local destructive surround. Distant metastases aoccur in about 20-30 percent of cases and usually involve the lungs and, less commonly, other bones and visceral organs \( (1,2,4) \).

Based on clinical, and cytologic features, the tumor was concluded as chordoma. The cytologic diagnosis was confirmed by histopathologic examination and revealed typical chordoma.

**Key words**; Chordoma, sacrocoxygeal, fine needle aspiration biopsy, histopathology examination.