Case report:

Extra skeletal soft tissue chondroma (ESSC) of right thumb- a benign tumour diagnosed by FNAC – a rare case report

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Abstract:

Extra skeletal soft tissue chondroma (ESSC) is very rare slowly growing benign tumours usually occur in hands and feet. Lesion must be differentiated from other benign and malignant lesions in these locations by clinical, radiological, cytological and histopathological examination for proper management of such benign entity. A case is presenting here in a thirty five years old lady suffering from similar type of lesion over right thumb diagnosed preoperatively by fine needle aspiration cytology because of rarity. Diagnosis was confirmed by surgical excision and histopathological examination.

Keywords: Soft tissue chondroma, thumb, FNAC.

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Introduction:

Extra skeletal soft tissue chondroma (ESSC) a benign cartilaginous tumour originating in the soft tissue is very rare. It is slowly growing has a tendency to occur in the hands and feet specially in fingers^{1,4} in adult persons of both sexes. Because of rarity it may misdiagnosed clinically with other lesions. Extra skeletal soft tissue chondroma (ESSC) and extra synovial chondroma mostly composed of hyaline cartilage of adult type. Here we are presenting of such a case arising over thumb of right side which was diagnosed preoperatively by fine needle aspiration cytology because of rarity.

Case Report:

A thirty five years old lady attended in the surgical outpatient department of Bankura Sammilani Medical College, Bankura, and West Bengal in the month of February 2018 with the history of slowly increasing lobulated mass over three years each having 2-3 mm in size with occasional pain over palmer aspect of right thumb (Fig I) and fine

needle aspiration cytology (FNAC) was done in the department of pathology. The mass was not adhering to skin and underlying bone or periosteal tissue without producing any neurological involvement. Her laboratory investigations and related systemic examinations were within normal limit. X-Ray of antero-posterior, lateral views right hand showed normal bony skeleton with multiple irregular cartilaginous masses without any connection and bony erosions (Fig II). FNAC of masses revealed mostly cartilaginous matrix mixed with chondrocytes suggestive of a soft tissue cartilaginous lesion (Fig III). Histopathological examination after excision of mass the case was diagnosed as extra skeletal soft tissue chondroma composed of hyaline cartilage with focal calcification (Fig IV). Patient was followed up for till date without any complain.

Discussion:

Chondroma is a common tumor but extra skeletal soft tissue chondroma (ESSC) clinically is very rare benign lesion probably appear as de novo

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without any existing lesions near tendon sheath or tendon, joint capsule or periosteum. Lesion may arise from fibrous stroma but not from mature cartilaginous or osseous tissue ^{2, 3, 5} and can be differentiated from juxtacortical or periosteal chondroma which is a benign tumor located between the bone and periosteum ^{2, 3}.

Clinically it is slowly growing usually painless small single or multiple nodules smooth to irregular lobulated soft tissue mass and often ignored by the patients. One case of bilateral chondroma was reported by Dellon et al in left ring and right fingers with renal failure ^{6, 7}. In our presenting case it was slowly growing for three years and presented to clinician due to occasional pain. As chondroma can occur in multiple sites within different bones, periosteum of short bones and joints as well as in different tissue thorough clinical and radiological examinations must be done before final evaluation and management. Clinically this benign lesion must be differentiated from ganglion cyst, giant cell tumour of tendon sheath, osteochondroma, myositis ossificans, other fibro osseous lesions and malignant lesions

like synovial sarcoma, chondro sarcoma as well as soft tissue osteosarcoma ^{8, 9}.

For successful diagnosis radiological, cytological and Histopathological examination are important. Preoperative examination of cytological smears may help to exclude malignant lesions by cytological pleomorphism and malignant nature for proper management and prognosis of the lesion. The presenting case also diagnosed preoperatively by cytological evaluation by FNAC and final diagnosis was confirmed by histopathological evaluation. Simple surgical excision is the treatment of choice but may have a chance of recurrence. The presenting case was also symptom free after six months of surgical excision without any evidence of recurrence ^{8, 10, 11}.

Conclusion:

Extra skeletal soft tissue chondroma a rare slowly growing benign tumour commonly affecting hands and feet and can be misdiagnosed as a malignant lesion. Thorough careful clinical, radiological and preoperative cytodagnosis and final histopathological examination are necessary to find out the benign nature of this lesion.

Fig I Photograph showing irregular lobulated mass of soft tissue chondroma over right thumb

Fig II X-Ray photograph showing soft tissue chondroma of right thumb.

Fig III Photomicrograph showing cytological features of chondroma (Leishman stain)

Fig IV Photomicrograph showing histopathological features of chondroma (LP, H&E stain)

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