

Case Report

Osteochondroma-Cases Presentation

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Abstract

Definition: Developmental osseous anomaly resulting in exophytic outgrowth on surface of bone. Osteochondromas account for about 12% of bone tumors. In morphologic view we separate as pedunculate and sessile form. Clinical are usually painless for a few years, the pain appear when nerves and blood vessels are touched by osseous growth. The diagnosis is done using x-ray, CT, MRI, Ultrasound, angiography, scintigraphy bone scan and histological examination. X-ray is first method of examination and gives us a many information about bone pathology. Later we can evaluate bone pathology with other methods.

Conclusion: In this case, we have described a patient 15 year old with pain and limited movements. We used X-ray, CT, MRI, Scintigraphy and histological results for lesion assessment. After these results our patient is operated by orthopedist. In Histopathology department, they take material of surgery and the result was osteochondroma. Finally, we want to say that early diagnosis is very important to except malign transformation or nerves and blood vessels complications.

Keywords: Osteochondroma; Pedunculate; Sessile; Diagnostic Methods; Histopathology Department

Background

Osteochondroma is a process that develops as an anomaly that results in increased growth on the surface of long bone. Osteochondrosis appears in the metaphyses of long bones about knee insertion, the proximal part of the humerus, rarely seen in the scapula skull, the clavicle, the bones of the laca as well as in the rings processors etc. Morphologically seen as peduncular mass or as sessile lesion.

Epidemiology

Osteochondrosis is considered as a developed lesion rather than as a true neoplasm. Osteokondrosis by WHO, is defined as an osteochondral exostosis with continuity in the cortical and medullary part. Osteochondromal ethylogenic factors they are unknown, but it is thought that the nose tumor is associated with an abnormality on the growth plate, causing bone flaconism that rises far away from the bone. Osteochondromas has intercourse with mutations of EXT1 and EXT2 genes that are related to the biosynthesis of heparan sulfate proteoglycans, which may favor epiphyseal growth. Generally, Osteochondromines appear in the first and third decades of life, appear especially in children, teenagers, without a sex preference. as well as diagnostic procedures; ray-x, CT, RM, HP as well as other diagnostic methods.

Case Report

Patients, A.B. 15 years old is admitted to the clinic because of the restriction of motion on the right knee. The main complaints have started before 6 weeks with pain and edema of the distal part of the right femoral. Patients are initially subjected to laboratory blood tests and their outcome is at the limit of reference values. After the anlizas is also the art radiography. right knees where it is

presented as degrading: After clinical examinations of Rtg, CT, MRI and laboratory tests, indications for operative intervention, operation and extractable material are sent for biopsy. After the operation, a rehabilitation treatment was applied.

Discussion

Osteochondroma is an unusual hereditary disease that occurs in long bone metaphs, around the knee articulation, the proximal knee, rarely patches on the ribs, the scalpel, the clavicle and the bones of the bone. This disease occurs in the first decade to the third of the life. The reported case is typical of the localization and for two main reasons: the age of the disease for 15 years based on the worldly likelihood as well as the disease and the localization. Osteochondria develops faster in younger age than in the elderly. Localization of Osteochondromes in the knee region of the diseased may give rise to obstructions in motion, degenerative arthritis, and neurovascular suppression by shaking even more health problems. At the young age degenerative arthritis is more rare than in the elderly. CT of the right knee, axial and sagittal plan, Changes in images obtained from 3mm MDCT images show changes in the meta-diaphysic region of the femoral artery in the distal front of the femoral arm coupled with cardiac cap and minimal cortical destruction .

MRI

Exophytic mas lesion (30×10) in anterior aspect of distal metaphysio-diaphyseal region of right femur. T2-hyperintensity overlyng lesion is cartilage cap.

There is impression for cortical irregularities in anterior edge of lesion. It is consistent with sessile osteochondroma. Maximum cartilage cap thickness is measured as 6 mm. MRI up is recommended

Histopathology. Tumoral tissue has zoned architecture, the

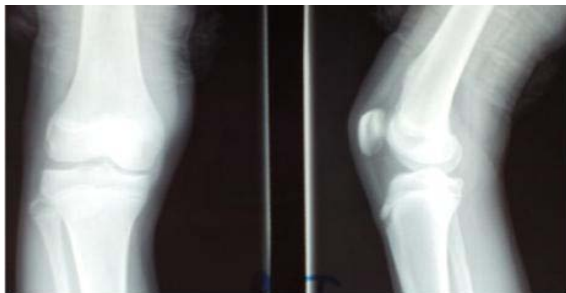


Figure 1: Projection and latero-lateral. The broad base of bone lesion in relation to the cortex in the distal front part of the metaphysis-diaphyseal region of the femur has been identified, with relatively clear boundaries; this is well noted in the lateral projection.

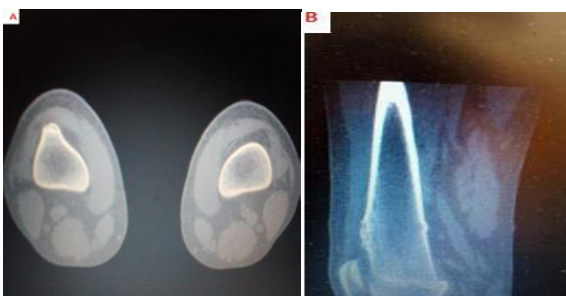


Figure 2: Osteochondroma, right knee joint, axial plan. (A) and sagittal (B), changes presented in images obtained by MDCT with 3mm cutting changes recorded in the meta-diafyal region of the femur, ekzostoze in the anterior distal femoral be coupled with the cap of cartilage and minimal cortical being destructive.

superficial part is constructed of well-differentiated chondrocyte, located in the background of the abundant chondrocyte matrix, the cartilaginous depth of the tissue is replaced by the osteoid trabeculae with regular osteoblasts.

Among osteoarthritis trabeculae is the yellow palette built from sebaceous indigo. According to world literature, about 40-50% of cases may occur at any age, especially at the age of 10 to 30, while most often affect males. 70% of the bone metaphors are 60-70% long. Whereas cases of malignancy are rarely seen, and the recurrences are around 5-10%. Laboratory analyzes are not convincing for the Osteochondromes' identification, but were within the limits of the reference values, but radiological diagnostics with CT and RMI are convincing methods for diagnosis.

Conclusion

Osteochondria appear in the first and third decades of life, especially in children, adolescents, without a sex preference, and in the event of the occurrence of pain and limited motion, the sufferer should be told to the doctor for further diagnosis and treatment. Radiology diagnostic approaches are of great importance to native radiography, CT, MRI and histopathological examination and with a few diagnostic laboratories.

After the diagnostic operative intervention is required. After the operation should begin the rehabilitation phase and treatment with cryotherapy and kinesiotherapy, should also be recommended



Figure 3: MRI of the distal femur: Examination Technique MRI images of the right knee were obtained using TSE/PDW + T2W (with fat saturation) sequence in axial, coronal, sagittal planes and TSE /T1W sequence in coronal plane. Findings: There is exophytic mass lesion (30x10 mm) in anterior aspect of distal metaphysis –diaphyseal region of right femur. T2-hyperintensity overlying lesion cartilage cap. It is consistent with sessile osteochondroma. Maximum cartilage cap thickness is measured as 6 mm. There is impression for cortical irregularities in anterior edge of lesion. Otherwise cortical and distal femura and patella are normal. No periosteal reaction.

Anterior and posterior cruciate ligaments are normal in their course and linear in their contour. There is abnormal signal associated with these ligaments. Quadriceps tendon is normal. All muscles within imaging field are normal in morphology and signal. Fascial planes are intact.

MRI. Exophytic mass lesion (30x10) in anterior aspect of distal metaphysis-diaphyseal region of right femur. T2-hyperintensity overlying lesion is cartilage cap. There is impression for cortical irregularities in anterior edge of lesion. It is consistent with sessile osteochondroma. Maximum cartilage cap thickness is measured as 6 mm. MRI follow up is recommended.

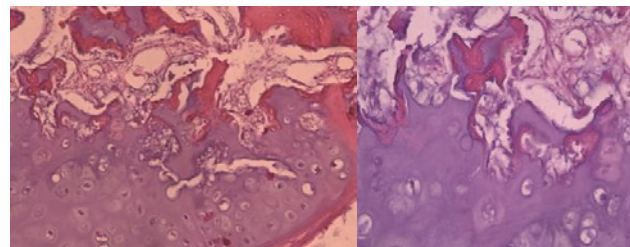


Figure 4: Histopathological report; Tumoral India has zonal architecture: the superficial part is constructed of well differentiated chondrocyte, placed in the background of the abundant chondrocyte matrix; the cartilage depth is replaced by the osteoid trabeculae demarcated with regular osteoblasts. Among osteoarthritis trabeculae is the yellow palette built from sebaceous indigo.

ambulatory treatment.

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