Unusual Encounter of Bilateral Genu Varum in a Child with Multiple Hereditary Exostosis: A Case Report

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INTRODUCTION:

Multiple hereditary exostosis (MHE) or known as osteochondroma is a benign cartilage-capped bony tumour affecting appendicular skeleton. It can be associated with complications such as bony deformity, restricted joint motion, and shortened stature. We report a case of MHE causing bilateral genu varum in a paediatric patient in our centre.

REPORT:

A 4-year-old boy presented to orthopaedic outpatient clinic for bilateral lower limb deformity for 6 months duration after being noticed by his grandmother. It was associated with multiple bony swellings, noted over bilateral proximal leg and bilateral wrist. Otherwise, the swellings are painless, not affecting his ambulation. His mother also had similar problem since childhood. Clinically he walks in varus thrust gait, no syndromic facies, no cutaneous stigmata of neurofibromatosis. Bilateral genu varum, worse over the right side with genu recurvatum right leg. There was presence of bony swelling over proximal right fibula measuring 1x3cm, well defined margin, non-tender and not mobile. Range of movement right knee full. Lateral collateral ligament laxity grade 2. Presence of limb length discrepancy 1 cm over the right side with 15-degree tibiofemoral angle. Radiograph of tibia fibula taken showed multiple mixed pedunculated and sessile type lesions over proximal bilateral tibia and fibula and bilateral distal femur. The lesions have cortical continuity with the bones. He underwent lateral hemiepiphysiodesis proximal right tibia and right fibula osteotomy to correct the angular deformity. Surgery went uneventful and he was discharged home day 2 post-operative.

DISCUSSION:

Multiple hereditary exostosis (MHE) is a benign, autosomal dominant cartilage-capped bony tumours affecting appendicular bones. The most common regions affected are the metaphyseal-diaphyseal region of long bones. MHE often causes genu valgum when knee joint is involved, affecting approximately one third of the patients. However, in this patient proximal fibula and tibia exostosis causes genu varum deformity. In paediatrics patient, deformity correction surgery is done to improve functional activity and to prevent further worsening of the deformity. We decided to proceed with temporary hemiepiphysiodesis by using 8-plate to correct the varus deformity.

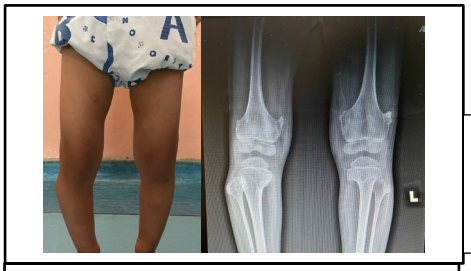

Figure 1: Pre op radiograph

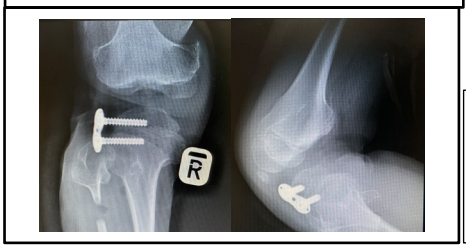

Figure 2: Post op radiograph

CONCLUSION:

Multiple hereditary exostosis (MHE) is a benign autosomal dominant tumour usually diagnosed in paediatrics age group. Although not all are symptomatic, some patient may develop complications such as deformity, neurovascular and chronic pain. Careful assessment and follow up should be done to decide whether intervention is indicated.

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