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The Importance of Identifying the Status of Ilio-Tibial Band in all Cases of Lower Limb Deformities before Operative Treatment Is Undertaken.

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ABSTRACT

Sometimes a deformity of a region may not be due a local structure alone. There are structures which can cross lot of regions. This may cause confusion as to which is the actual structure causing the deformity . Familiarity with complex deforming forces is must and careful clinical examination to rule out the other causes before entertaining.

Keywords: Identifying, status , ilio- tibial band , lower limb deformities, local structure.

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INTRODUCTION

Sometimes a deformity may not be due a local structure alone. There are structures which can cross lot of regions. This may cause confusion as to which is the actual structure causing the deformity. Familiarity with complex deforming forces is must and thoroughly ruling out the other causes before contemplating any invasive procedures is necessary.

Case example

An 11 year old boy presented with deformity in his right knee joint .An apparently normal child developed a gradual deformity of the right knee which was insidious. This has been going on for three years. there was neither an history of any intra muscular injections nor an history of an illness suggestive of polio myelitis. The boy regularly consumes milk in tea and coffee of around 100 ml two times daily. He presented here wanting a corrective surgery to his right knee as it was in gross knocking each other.



Figure 1: Patient is seen standing. From the front, the genu valgum on the right side is obvious.



Figure 2: Patient is seen standing. From the back, the genu valgum on the right side is obvious.



Figure 3: Patient is seen squatting; the genu valgum on the right side is less obvious with knee in flexion.



Figure 4. Patient is seen standing. From the side, the flexion at the knee and equinus on the right side are obvious.



Figure 5: Patient is seen standing after undressing. From the back, pelvic tilt to the right side along with the genu valgum on the same side are obvious.

Patient presented with genu valgum. His height was 130cms. On careful examination apart from genu valgum, he had a mild scoliosis, pelvic tilt, equines and a shortening of three cms. He also had abduction contracture of the right hip. An Ober's test done on the right side showed an ilio-tibial band contracture. The patient was advised ilio-tibial band release in the form of Yount's procedure.



Figure 6: Patient is seen lying on his right side. From a flexed abducted leg is dropped slowly the knee goes to the couch indicating no tightness of the ilio-tibial band.



Figure 7: Patient is seen lying on his left side. From a flexed abducted leg is dropped slowly the knee does not go to the couch as on left side indicating tightness of the ilio-tibial band.

The patient was advised further evaluation and he had release of the ilio-tibial band.

DISCUSSION

An early work on the deformities produced by the ilio tibial band contracture was put forward clearly.¹ There was another case report of a 14-year-old boy with melorheostosis and severe ilio-tibial band tightness which was associated with femoral shortening, severe external rotational deformity of the femur, genu valgum and patellar dislocation in the right lower extremity. Magnetic resonance (MR) imaging showed of the ilio-tibial band thickening [1,2]. Abnormal insertion of ilio-tibial band on patella can cause congenital dislocation of patella. One such case was seen in post-polio residual paralysis where a hip flexion-abduction deformity was associated with congenital dislocation of patella. This case was treated with release of the tight ilio-tibial band from the patella along with other tight lateral structures along with medial reinforcing along with realignment of distal attachment of the patellar ligament [3]. Fixed pelvic obliquity in patients after poliomyelitis was earlier classified based on the level of the pelvis relative to the short leg. There were subsections based on direction and severity of the scoliosis. The procedures that were advised after the classification was proposed were a permutation of surgical procedures to improve pelvic obliquity in most patients. Stabilisation of the hip by triple innominate osteotomy with or without trans-iliac lengthening, lumbo-dorsal fasciotomy, abductor fasciotomy and spinal fusion were some of the procedures [4]. As far as the polio patients are concerned, one should assess the patient completely and provide the maximum that is possible. The patient must not go into a condition of second disability [5] or by a wrong surgery without addressing the patient holistically into a third disability.

CONCLUSION

The status of ilio- tibial band must be thoroughly assessed in all cases of lower limb deformities before any operative treatment is undertaken

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