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CASE REPORT

A CASE OF TIBIO-FIBULAR SCOLIOSIS FOLLOWING CHILDHOOD OSTEOMYELITIS OF TIBIA: A CASE REPORT

Kali Varaprasad Vadlamani[1], V. Ravindranath[2], K. Krishnamohan Reddy[3]

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ABSTRACT: INTRODUCTION: Osteomyelitis of the long bones is not uncommon in children. The post infective sequelae are very much unpredictable. In this case report we would like to present a very rare complication of childhood Osteomyelitis i.e. gross deformity of distal 3rd of Tibia and Fibula in patient of 19 year old male and tethering of the skin on concave side the Tibia. **PROCEDURE:** The patient with the deformity of the both bones of leg on right side was thoroughly evaluated clinically and radiologically. The deformity was corrected gradually with the Ilizarov frame. The case was followed and the result was discussed in detail. **CONCLUSIONS:** The deformity of the Tibia was corrected by minimal incision corticotomy of the Tibia and the result was satisfying to the patient.
KEYWORDS: scoliosis, ilizarov frame, corticotomy.

INTRODUCTION: Osteomyelitis is still common childhood infections of the bones even in these days. The treatment of osteomyelitis is still challenging to the orthopaedic surgeons in the sense the cure and its complications are very unpredictable. There are a variety of complications described in the literature like growth abnormalities, pathological fractures and contractures of the neighboring joints.

CASE REPORT: The present case, a 19 year old male, had come to our outpatient department with deformity (Fig. no. 1), difficulty in walking for the past 15 years. On examination the patient was seen walking on the lateral aspect of the right forefoot. There was a tethered skin scar on the anteromedial aspect of the lower 4th of the right leg. The calf muscles were hypotrophied. There were no sinuses. The ankle was in equinus and there was varus deformity at the subtalar joint. The sole was normal but for the callosities on the lateral border of the fore foot and over the plantar aspect of the lateral three toes. The ipsilateral knee, hip and contralateral ankle and foot were normal. The radiograph (Fig. no. 2) showed signs of healed chronic osteomyelitis like thickened cortices and obliteration of the medullary canal of the Tibia. The Fibula was also grossly deformed. The Ankle mortise was not parallel to the ground.

The patient was evaluated for fitness for the anaesthesia and for the surgery. The surgical procedure included was a hinged three ring construct of Ilizarov frame applied to the Tibia and a distal corticotomy of the Tibia and an osteotomy fibula were done in the lower one 4th (vide ref no 1, 2, 3, 4, 5, 6, 7, 8). After 10days, the differential distraction was done gradually till the required correction was obtained. The post- operative period was uneventful. The patient was mobile all through on a walker and was followed for a period of 2 years. There was clinico-radiological union of the Tibia and the Fibula with good correction of the deformity of the leg (Fig. no. 2). The patient was seen walking on the plantigrade foot with a plumb line going through the center of the ankle even though there was some deformity. The case was presented for its rarity of the deformity and a good follow up.

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DISCUSSION: Childhood osteomyelitis of long bones is still a common scenario even now in the rural areas. The complications are growth disturbance, deformities, joint stiffness and pathological fractures. In this case report a rare complication following childhood osteomyelitis with a gross deformity of the leg was managed completely with a good result. The skin on the antero medial side of the leg in the lower third was contracted and tethered to the underlying Tibia. The Tibia was deformed due the growth disturbance, could be due to the damage to the lower physis. The Fibula also followed the Tibia in the deformity. In view of the deformity the patient was walking on the lateral border of the fore foot and on the lateral three toes. The result was satisfactory with the procedure described.

CONCLUSION: This type of presentation of childhood osteomyelitis is relatively very rare. The deformity of the Tibia was corrected by minimal incision corticotomy of the Tibia and the result was satisfying to the patient. Though the follow up radiographs show some residual deformity one can appreciate the improvement of the gait after the surgical procedure.

CLINICAL MESSAGE: One should keep in mind these deformities, though they are rare. The technique described in this case report was very useful and gratifying to the patient. The duration of the treatment was about 5 months.

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Fig. no. 1: Clinical deformity

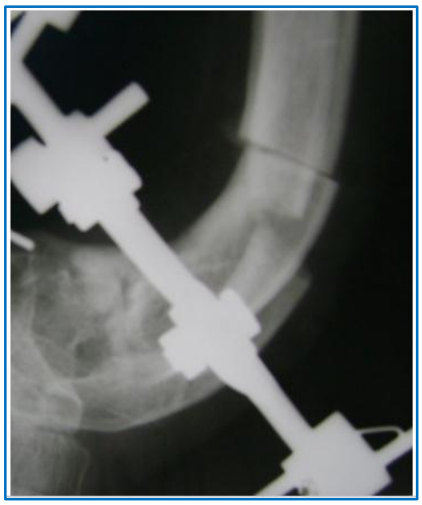

Fig. no. 2: Corticotomy

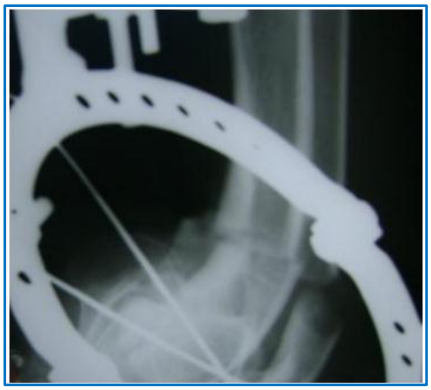

Fig. no. 3: Early differential distraction

Fig. no. 4: Clinical picture of follow up

Fig. no. 5: Correction after removal of the frame AP view

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CASE REPORT

Fig. no. 6: Correction after removal of the frame Lateral view

AUTHORS:

1. Kali Varaprasad Vadlamani
2. V. Ravindranath
3. K. Krishnamohan Reddy

PARTICULARS OF CONTRIBUTORS:

1. Associate Professor, Department of Orthopaedics, Osmania Medical College, Hyderabad.
2. I/C Professor, Department of Orthopaedics, Osmania Medical College, Hyderabad.
3. Senior Resident, Department of Orthopaedics, Osmania Medical College, Hyderabad.

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NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:
Dr. Kali Varaprasad Vadlamani,
Associate Professor,
Department of Orthopedics,
304, Sneha Enclave, Street No. 4,
West Marredpally,
Secundrabad,
Telangana.
E-mail: prasadvkv@gmail.com

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