LATE SEQUEL OF MENINGOCOCCEMIA: PRESENTING AS SKELETAL DYSPLASIA

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Introduction

Although there is considerable literature dealing with the diagnosis, initial management and early complications of meningococcemia,data about late complications is scarce. Growth plates may be influenced permanently by ischemia leading to late orthopedic complications such as leg length discrepancy, angular deformity and distorted body proportion. We present a patient with disproportionate short stature due to late squeal of meningococcemia who was misdiagnosed and followed as skeletal dysplasia for many years.

Case Presentation

A 12–year-8-month-old boy was referred for short stature, limb length discrepancy and angulation of legs which became apparent at 5 years of age who was diagnosed and followed as skeletal dysplasia before. He was born at term as child of healthy non-consanguineous parents. His birth weight was 3,250 gr and height 50cm. At 5 months of age he was hospitalized in an ICU for 20 days due to meningococcemia. He survived with phalangeal amputations. He later had surgery for the correction of genu varum at age 4 years. His height was 125 cm (-3,77 SDS), weight 57,8 kg (0,97 SDS) and body mass index 37 kg/m2 (3,68 SDS). Sitting height to height ratio (0, 61) was increased, 'arm span-height' was decreased (-8cm, <-2SD) with mesomelic shortening of both upper and lower extremities.The right leg was 3 cm shorter than left leg with genu varum deformity despite corrective surgery. Second and fourth distal phalanges of right hand and distal phalanx of the fifth finger on the left were amputated. Soft tissue scarring of the scalp, both wrists, forearms and legs including ankles were also noted (**Figure 1**). Most striking radiological feature was early closure of epiphysis and resultant herniation into metaphyseal bone giving "ball and socket" sign in extremities **(Figure 2)**. In light of similar cases reported in literature and with almost identical radiological features mentioned above, we confidently conclude that he is suffering a post-meningococcal late skeletal sequelae.

Conclusion

Epiphyseal growth plate injury secondary to ischemia during infantile meningococcemia may be insidious initially and may present years later with skeletal disturbances. Referals for disproportionate short stature and possible skeletal dysplasia must not blind pediatricians in the field towards relevant clinical history taking

Figure 1

Figure 2. Lower limbs: Right femur is shorter than the left one and both distal femoral epiphyseal lines are partially closed, particularly in the right side. Genu varum deformity is seen in the knees. Proximal tibia epiphyseal lines are almost closed and partial epiphyseal closure are seen in the distal tibial epiphyseal lines. Note that bilateral proximal tibial epiphysis are irregular and epiphyseal part of the bones herniate into metaphysis giving "ball and socket" sign.

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