

## A Newborn with Lower Limb Gangrene Due to a Congenital Band

Sir,

Amniotic band syndrome, also called amniotic band sequence (ABS), is a well recognized entity with a spectrum of clinical presentations.<sup>1</sup> Herein, we report an unusual case of a 36-hour old baby who was brought-in with swollen, brownish-black left leg. The baby, an unbooked case, was delivered at full-term at home by a traditional birth attendant. There was no reported antenatal visits to any doctor. The blackening of the leg was noted at birth but treatment was not sought. As no improvement in the condition of the limb occurred, baby was taken to a nearby secondary level hospital from where he was referred to our institute. Patient was immediately shifted to the operation room for examination and further procedure.

On examination, baby was a 2.1 kg male, clinically jaundiced with multiple anomalies. An encircling band constriction was found at the level of left distal femur leading to gangrene of distal part of the extremity (Figure 1). The limb was almost detached, hanging on a bridge of skin and underlying dead subcutaneous tissue. A firm to hard globular swelling was present at medial aspect of left femur. Right lower limb had a wrinkled appearance with talipes-equinovarus deformity. Erb's palsy was noted in right upper limb. Nails in upper and lower limbs had black pigmentation with pitted appearance. Rest of the head to toe physical examination was unremarkable. After taking informed and written consent, the dead limb was excised without any significant bleeding. The resulted small raw area was dressed. Patient was advised admission for further investigations and care, but the family left against medical advice.

ABS refers to spectrum of congenital anomalies, including disruptions, deformations and malformations, in which mostly limbs are affected. These disruptions may be caused by adhesions or constrictions by amniotic bands (extrinsic theory). According to a hypothesis, amnion rupture may lead to oligohydramnios. Less amniotic fluid can result in limited fetal mobility and potential of tethering of fetal parts. The constricted part may get engorged due to obstruction to blood flow leading to tissue oedema, ischaemia and necrosis. This may result in deformity or amputation of the part involved. This is most likely the cause in this patient. According to another (intrinsic) theory, anomalies result from damage to developing germinal plate in early gestation period.<sup>2</sup>



**Figure 1:** Newborn with brownish black left lower limb, a distinct band encircling the limb at the level of distal thigh, a globular swelling on medial aspect of left leg and right talipes- equinovarus.

The condition can be diagnosed on antenatal ultrasound and *in-utero* techniques and salvage of limbs have been reported.<sup>3</sup> The index case had many unique features. Firstly, presentation of a newborn with gangrene of the limb at birth is not found in literature to the best of our knowledge. It appears that pathological events in reported patient were due to extrinsic compression after fetal parts were already developed. It is also believed that event may have occurred late in gestation as tissues were swollen with well recognized features. The other anomalies like talipes-equinovarus, wrinkled appearance, are also suggestive of oligohydramnios with limited fetal mobility.

This case also highlights the lack of healthcare facilities and the health-seeking behaviours even in urban areas, where such facilities are provided free of cost. Poor socioeconomic status, illiteracy and absence of social services contribute to low health-related indices as highlighted in present case.

### REFERENCES

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