Amniotic band and foot polydactyly: A rare case

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ABSTRACT

Amniotic band syndrome (ABS) is defined as the triad of fetal deformation, malformation, and amputation caused by adhesions and entanglement of the fetal parts by the placenta, lacking an amniotic membrane and the remnants of amniotic membrane. The current case report presents a rare case with amniotic band syndrome, in whom constriction bands in the left hand second finger and left foot second and fourth toes are accompanied by preaxial polydactyly in the left foot. ABS is a rare condition observed in infants and it is frequently accompanied by other extremity anomalies. Appropriate treatment options allow better functional and cosmetic outcomes.

Key words: Amniotic band, foot, preaxial polydactyly, surgery

Introduction

Amniotic band syndrome (ABS) is a triad of fetal deformation, malformation, and amputation caused by adhesions and entanglement of fetal parts by the placenta, which is also characterized by the lack, or remnants, of the amniotic membrane [1,2]. ABS mostly occurs as superficial and deep constriction bands and the limbs are the most commonly affected organs (83.1%). Hand and foot deformities rank first (66%) among these deformities [3]. Polydactyly is a congenital anomaly occurring as duplication of fingers or toes in various degrees. Polydactyly is classified as preaxial, central, and postaxial, depending on its anatomic location. In addition, Venn-Watson recommended a classification system of foot polydactyly into six categories, depending on the anatomic configuration of the polydactylic finger [4].

Case Report

A 15-month-old girl was referred to our clinic for the presence of constriction bands on her fingers and toes, as well as an extra digit on her left foot. The patient was born full-term via vaginal delivery with normal weight, height, and head circumference. The family history was remarkable for a second-degree consanguineous marriage. The mother did not have a history of drug use, infections, or trauma. Physical examination revealed constriction bands on the proximal phalanx of the left thumb, the middle phalanx of the fourth finger of the left hand and the second and fourth proximal phalanges on the left foot, along with preaxial polydactyly with abnormal location on the left foot (Figures 1-3). The radiographies of both hands and feet did not reveal any pathological findings other than a duplicated metatarsal bone articulating with the tarsometatarsal joint of the big toe.
The present case had type 3 polydactyly. There were deep constriction bands on the second and fourth toes of the foot and superficial constriction bands on the fourth finger of the hand. The circulation of the fingers was not affected. The parents did not report any complaints related to polydactyly except difficulty in wearing shoes and its unaesthetic appearance. The parents rejected any surgical intervention on the amniotic bands due to the risk of circulatory problems. The patient was operated upon under general anesthesia for polydactyly repair (Figure 4).

The current patient presented with a rare case of amniotic band syndrome involving constriction bands on the digits of the hand and foot that was accompanied by preaxial polydactyly of the left foot. This case therefore represents a rare form of polydactyly for which co-occurrence with amniotic band syndrome has not been previously reported.

Conflict of interest statement
The authors have no conflicts of interest to declare.

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