Sir,

Amniotic band syndrome (ABS) is a spectrum of asymmetrical congenital malformations owing to ring-like constrictive bands in the limbs, head, face, or occasionally the trunk.[1,2] Originally thought to be due to a primary germ cell defect,[3] later studies of the placenta and fetus have led to the widely accepted concept of amniotic rupture.[4,5] We report two cases of ABS with ectrodactyly.

A 10-year-old male child born of a nonconsanguineous marriage presented with deformities of both upper and lower limbs since birth. His mother was giving a history of forceps delivery. On cutaneous examination, he had constricted band at the middle of both legs. The constricted bands also involved the fingers of both hands and the great toe of the right foot, which led to the autoamputation of the index, middle, and ring finger of the right hand and the thumb of left hand. Examination of the left foot revealed clefting (ectrodactyly) with edema [Figures 1 and 2].

An 8-year-old female child presented with deformities of hands and feet.

On examination, there was absence of index and middle finger of the right hand. Autoamputated middle and ring fingers of the left hand were mild edematous. Constriction bands were seen over great toe and second digit of the right foot. The band was also appreciated at the lower one-third of the right leg. Clefting of left foot (ectrodactyly) was an important finding. The fifth digit of the left foot was also autoamputated [Figures 3 and 4].

ABS etiopathogenesis is unknown, but there are two main theories. Widely accepted “extrinsic model,” proposed by Torpin and Faulkner in 1966 explains defects genesis by rupture of the amnion in early pregnancy, with forming of amniotic bands and amniotic liquid loss, followed by extrusion of all or parts of the fetus into the chorionic cavity. Bands entrap the parts of the growing fetus, and fetus’ limbs and other body parts become entangled and subjected to compression, which compromises fetal circulation and also his growth and development with consecutive disturbances of functions and anatomy. The “intrinsic model” was proposed by Streeter.

Figure 1: First Case: Amniotic band with ectrodactyly over left lower extremity shown by arrow

Figure 2: First Case: The Constricted bands also involved the fingers of both hands and the great toe of right foot which led to the autoamputation of index, middle and ring finger of right hand and the thumb of left hand. Examination of left foot revealed clefting of left foot (ectrodactyly) with edema

Mohabat D. Baria
Department of Dermatology and Venereology, Zydus Medical College and Hospital, Dahod, Gujarat, India

Address for correspondence:
Dr. Mohabat D. Baria,
Department of Dermatology and Venereology, Zydus Medical College and Hospital, Dahod - 389 151, Gujarat, India.
E-mail: dr.mohabatbaria@gmail.com

How to cite this article: Baria MD. Amniotic band syndrome with ectrodactyly-two cases. Indian Dermatol Online J 2020;11:101-2.
Received: December, 2018. Revised: June, 2019. Accepted: June, 2019. Published: January, 2020.
in 1930 and suggests that the anomalies and fibrous bands have a common origin, caused by a perturbation of developing germinal disc of the early embryo.\[^{3}\]

Both the patients had ABS. The similar and interesting finding in the two cases was ectrodactyly of the left foot. Sex of the patients was different. The male child had a history of forceps delivery. There was no evidence of cleft lip, cleft palate, ectodermal dysplasia, and other skeletal abnormalities. There was neither family history nor the history of consanguineous marriage.

ABS can present with ectrodactyly, which requires a team approach of specialists and complete physical and systemic examination.

**Declaration of patient consent**

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

**Financial support and sponsorship**

Nil.

**Conflicts of interest**

There are no conflicts of interest.

**References**

1. Das D, Das G, Gayen S, Konar A. Median facial cleft in amniotic band syndrome. Middle East Afr J Ophthalmol 2011;18:192-4.
2. Verma A, Mohan S, Kumar S. Late presentation of amniotic band syndrome: A case report. J Clin Diag Res 2007;1:65-8.
3. Verma BS, Shah SH, Bhatt DR. Congenital constrictions. Indian J Dermatol Venereol Leprol 1967;33:273-5.
4. Torpin R, Faulkner S. Intrauterine amputation with the nursing member found in the fetal membranes. JAMA 1966;198:185-7.
5. Torpin R. Amniochorionic mesoblastic fibrous strings and amniotic bands: Associated constricting fetal malformations or fetal death. Am J Obstet Gynecol 1965;91:65-75.