## AMNIOTIC BANDS WITH INFANTILE DIGITAL FIBROMATOSIS

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Amniotic bands are uncommon conditions that may lead to malformations and fetal-infant death [1]. Amniotic bands are congenital constriction bands from the outer membrane surface into the amniotic cavity, that occur when the amniotic membrane ruptures [2]. As baby develops, amniotic bands can trap extremities and may cause immobilization, constriction or even amputation of the structure [2]. It is not so common for Dermatologists. Even Fitzpatrick's textbook does not have section for it. However, as amniotic bands compress skin directly, dermatologist should have the knowledge of it. In this report, Dr. Ambika and his colleagues showed a complication possibly caused by amniotic bands [2]. They showed that infantile digital fibromatosis was associated with amniotic bands in a newborn baby [2].

Infantile digital fibromatosis is characterized clinically by asymptomatic, flesh-colored and firm nodules affected on the fingers and toes in infants [3]. It may be present at birth. The most affected sites on fingers are the third to fifth digits [3]. It is histopathologically characterized by poorly circumscribed, interlacing bundles of myofibroblasts, in which eosinophilic, Masson trichrome stain-positive paranuclear inclusion bodies are observed [2,3]. These inclusion bodies are the hallmark of infantile digital fibromatosis, differentiating this from other conventional fibromatosis [2,3].

The unfortunate thing is that the patient did not consent to perform skin biopsy of the lesion. Therefore, as mandatory (the authors used this word in the article) biopsy for the diagnosis of infantile digital fibromatosis was not performed, it is possible that the diagnosis may have been wrong.

However, we agree the clinical diagnosis of infantile digital fibromatosis because of the typical and convincing clinical photos they showed in the article and the result of ultrasound scan.

The pathogenesis of infantile digital fibromatosis is unknown. However, it has been suggested the roles of transforming growth factor-□1 mediated differentiation of myofibroblasts from fibroblasts and of bone morphogenetic protein-mediated apoptosis [4,5]. Therefore, it is tempting to speculate that amniotic bands may enhance the expression of these growth factors in the fetus.

## **REFERENCES:**

- 1. Buccoliero AM, Castiglione F, Garbini F, Moncini D, Lapi E, Agostini E, Fiorini P, Taddei GL: Amniotic band syndrome: a case report. Pathologica 2011; 103: 11-13.
- 2. Ambika H, Sujatha C, Santhosh S: Amniotic bands with infantile digital fibromatosis. N Dermatology Online 2011; 2: X-X (this issue)
- 3. Harting M, Hicks MJ, Levy ML: Dermal hypertrophies. Wolff K, Goldsmith LA, Katz SI, Gilchrest BA, Paller AS, Leffell DJ (eds). In Fitzpatrick's Dermatology in General Medicine. 7<sup>th</sup> edition. Chapter 64, pp.550-557, 2008, McGraw Hill, New York.
- 4. Laskin WB, Miettinen M, Fetsch JF: Infantile digital fibroma/fibromatosis: a clinicopathologic and immunohistochemical study of 69 tumors from 57 patients with long-term follow-up. Am J Surg Pathol. 2009; 33:1-13. 5. Taylor HO, Gellis SE, Schmidt BA, Upton J, Rogers GF: Infantile digital fibromatosis. Ann Plast Surg. 2008;61:472-476.

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