

# **Flexor Digitorum Accessorius Longus Muscle in Resistant Clubfoot Patients - Introduction of a New Sign, Predicting its Presence**

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## **Introduction**

Talipes Equino Varus (TEV) is a common congenital foot anomaly known as clubfoot. It usually responds to conservative treatment. There are many causes for resistant clubfeet and aberrant muscles are one cause.

## **Objective**

The purpose of the study is to determine the characteristics of patients with resistant TEV who need extensive soft tissue release with the presence of an aberrant muscle, flexor digitorum accessorius longus (FDAL), which is usually discovered during surgery. From the characteristics observed in the study, a novel medical sign can be determined which surgeons can use to predict the presence of FDAL.

## **Methods**

We reviewed the records of clubfoot patients treated with extensive surgery between 2007 and 2012 at the Sudan Clubfoot Project, including their demographic characteristics. Only patients with idiopathic TEV were included in the study. Clinical examinations of patients with clubfoot seen during the study period were also included.

## **Results**

Resistant clubfeet necessitated extensive release in 261 patients (197 males and 64 females). Ages ranged between one day and 15 years old at presentation. The study included 411 feet. In the studied patients, FLAD muscle was found in 48 patients (54 feet) (13.14%). In 46 out of the 48 patients (95.8%) the presence of the FDAL could be predicted by a sign. On clinical examination it was observed that, when the big toe is in extension position, while the other toes are in flexion position, FDAL was present- a sign that could be potentially designated as the Samir-Adam sign (%).

## **Conclusion**

FDAL is prevalent in 13.14% of TEV conditions where there was a need for extensive soft tissue release. Surgeons can expect resistant clubfoot and predict presence of the FDAL in over 95% before they operate by checking for the Samir-Adam sign.