COMPLIANCE OF WEARING FOOT ABDUCTION ORTHOSIS (FAO) AND RELAPSE OF CTEV FOLLOWING TREATMENT WITH PONSETI METHOD

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BACKGROUND:
Congenital talipes equinovarus (CTEV) is a common congenital foot deformity. Ponseti method has high success rate of treatment, with up to 90% of reported successful rate. Nonetheless, there is still significant number of relapse cases. Bracing plays an important role in increasing the long-term treatment success and had been reported to have 10 times greater risk of relapse in non-adherence parents.

AIM:
The purpose of this study is to compare risk of relapse of CTEV with poor compliance in wearing foot abduction orthosis (FAO).

METHOD:
Medical folders of all patients treated in the clubfoot clinic from 1st June 2015 to 31st Dec 2018 were retrieved. All patients diagnosed with CTEV treated with Ponseti method within the period stated will be recruited. Patients with underlying neuromuscular conditions, syndromic patients, and deformities related to trauma, tumour and infection were excluded from the study. Those with flexible clubfeet that did not require any manipulation or casting were also excluded. Phone calls were made to all patients recruited to interview the caretakers to fill up the questionnaires.

RESULTS:
A total of 46 patients (69 feet) with congenital clubfoot were interviewed. Mean follow up for the patients was 39 months. 13 (28%) patients with 20 feet had recurrence of the deformity. 9 (69%) out of 13 patients who had recurrence were male. 7 patients (54%) had the recurrence of bilateral feet. 9 (69%) patients who had recurrence of the deformity were not compliant to the foot ankle orthosis. There is no significant association between compliance of ankle foot orthosis with relapse of clubfoot (p-Value 0.056). Regardless of the status of recurrence of the clubfoot, all patients except one reported excellent outcome in term of appearance subscale of the Roye's DSI score. All parents report excellent outcome in term of function outcomes. All three patients who required further surgical intervention to correct the deformity following relapse reported excellent outcomes in both function and appearance satisfaction.

CONCLUSION:
CTEV is a common daily encounter disease. Early detection and initiation of the treatment and compliance of the ankle foot orthosis should be effectuated in order to reduce the risk of recurrence of clubfoot, ensuring that the affected children to have painless, plantigrade and shoe-able feet.

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