Reply to Letter to the Editor

New Tendon Transfer for Correction of Drop-foot in Common Peroneal Nerve Palsy

Adolfo Vigasio MD, Ignazio M. Marcoccio MD

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Titolo and colleagues proposed a modified version of Vigasio tendon transfer [7, 8] in which surgeons reroute only half of the anterior tibialis tendon. The remaining half of the anterior tibialis tendon is used as a rein to “improve in dorsiflexion the correct balance of pronation/supination of the foot especially when the exit hole of the transosseous tunnel at the third cuneiform is not perfectly centered on the axis of the ankle,” according to Titolo and colleagues’ letter to the editor.

The basis for their proposal is not new. Numerous papers [2–6, 9] play on the “reins” concept in order to obtain a balanced foot dorsiflexion. Several bone attachments have also been tested (first, second, third cuneiform, cuboid, and the base of the fifth metacarpal bone). Goh and colleagues [1] demonstrated that the ideal tendon insertion to achieve a balanced foot dorsiflexion is on the third cuneiform.

(Re: Vigasio A, Marcoccio I, Patelli A, Mattiuzzo V, Prestini G. New Tendon Transfer for Correction of Drop-foot in Common Peroneal Nerve Palsy. *Clin Orthop Relat Res*. 2008;466:1454–1466.)
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A. Vigasio, I. M. Marcoccio (✉)
Istituto Clinico Città di Brescia—Gruppo San Donato, 2° Unità
Operativa di Chirurgia della Mano e Microchirurgia Ortopedica,
Via Gualla 15, 25123 Brescia, Italy
e-mail: info@ignaziomarcoccio.it

Generally, a “reins” procedure, like the one proposed by Titolo, has not been widely adopted among surgeons because the approach is technically demanding. Additionally, the procedure does not respect the “straight line of pull principle” on tendon transfer [1]. According to this principle, if two or more tendons are sutured with an oblique angle of incidence, the donor tendon further dissipates the residual contraction power, risking the creation of a tenodesis effect rather than a voluntary, dynamic dorsiflexion of the ankle and digits.

The anterior tibialis tendon rerouting technique as described by Vigasio [7, 8] use an anterior tibialis tendon as a single rein. When correctly extracted from the third cuneiform, the tendon gives a working balanced foot dorsiflexion.

We understand that surgical techniques continually need updates and revisions, and we thank Titolo and coauthors for their proposal.

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