‘Supramalleolar orthoses and postural stability in children with Down syndrome – Banta replies’

SIR–The recent article by Martin¹ entitled the ‘Effects of supramalleolar orthoses on postural stability in children with Down syndrome’ raises several questions. The study included 17 children (mean age 5y 7mo). However, three children, representing 17% of the study population, were dropped from the analysis. One child was intolerant of the orthosis (for unexplained reasons), one could not be tested, and one was a ‘low score outlier’. Of the remaining 14 participants, only 11 were of sufficient age for testing with the Bruininks-Oseretsky Test of Motor Performance, representing another 21% loss of participants.

Testing sessions were performed over a period of only 10 weeks, although the author declares in the abstract that ‘immediate and longer-term… improvement in postural stability’ was noted. The rationale for using an orthosis to provide postural stability for a child during daytime activity is to provide that support for the duration of the activities. The test protocol only required 8 hours use daily, yet the children averaged only 5.68 hours daily.

In discussing results based upon the Gross Motor Function Measure (GMFM) scores, the author states that ‘2 percentage points could mean completing a floor to stand transition’ and later that ‘approximately 3 percentage points could mean stepping over tall obstacles independently’. These statements in the final analysis are rather vague extrapolations of a testing program, the design of which extended for a period of only 10 weeks.

The author is to be congratulated for incorporating the newer testing modalities, e.g. the GMFM, which has become widely accepted in the field of developmental pediatric disorders. However, the number of test participants and the brief study period does not qualify the work for classification as a long-term clinical evaluation. ‘The Journal of Bone and Joint Surgery’, for example, requires a minimum follow-up period of two years before publication of clinical studies as opposed to unique case reports. Orthotic design changes which assist a child with Down syndrome in overcoming the inherent laxity of the weight bearing joints, thus allowing better performance, are commendable, but a more detailed analysis would be recommended before encouraging the use of expensive orthotic devices.

Perhaps ‘Developmental Medicine and Child Neurology’ editorial policy might be revisited to consider classification of published papers as preliminary reports versus long term studies, as the rapid and long-term growth potential of our pediatric population spans birth to late adolescence.

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Reference

Errata

The Clinical Management of Craniosynostosis
Clinics in Developmental Medicine No. 163
Hayward et al. Mac Keith Press 2004
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On page 366, first line of the paragraph headed ‘Pain Management’, the dosage of fentanyl is incorrect. It should read:

5–10 µg/kg

We recommend that the correct dose is written onto the page.

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Clinical characteristics of language regression in children

It has been drawn to our attention that the first author’s name was printed incorrectly. Rather than ‘Sy Wilson’, it should have been ‘Wilson Sy’.

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