

## Author's Response

Doctors Harkness and Thorburn infer that cases of mandibular asymmetry due to condylar trauma will spontaneously improve due to condylar regeneration, while cases of hemifacial microsomia are due to genetic factors and therefore do not have any inherent growth potential. Both suggestions are speculative. Proffit, et al.<sup>1</sup> reported on four cases of severe mandibular growth inhibition due to condylar fractures, none of which demonstrated spontaneous correction. Melsen, et al.<sup>2</sup> reported on three cases, two of which had condylar trauma. None showed spontaneous improvement. Cohen, et al.<sup>3</sup> report that hemifacial microsomia is both etiologically and pathogenetically heterogeneous. Moss and Rankow<sup>4</sup> consider the functional matrix to be the significant factor in mandibular growth.

Doctors Harkness and Thorburn showed condylar regeneration in their case between four and seven years of age. The subject of my report was previously seen by the Departments of Pediatric Dentistry and Oral and Maxillofacial Surgery in The Oregon Health Sciences University at age 3 years, 10 months. They ascertained that the patient's lower jaw deformity existed since birth. The attending pediatrician found no injury to the head or jaw during delivery. We

are certain that this patient's asymmetry, as seen at age 11 years, 7 months, would not have corrected spontaneously.

In the milder cases (Type I HFM and Type II HFM)<sup>5</sup> surgery has too often been the first approach. In my opinion, a noninvasive method should first be tried. Whether the growth response of a condyle induced by functional therapy would be different in cases of condylar trauma compared to one that is congenital is pure speculation. Some cases of "hemifacial microsomia" do not respond as well as others,<sup>6</sup> but the functional therapy approach should be attempted before all others.

Doctors Harkness and Thorburn make a valid point: a single anecdotal report is not proof. We considered the growth of the unaffected condyle to be the control for the affected side. This case adds to the growing number of papers<sup>2,7</sup> where functional therapy has been shown to improve mandibular asymmetry whatever the cause.

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