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## Cervical Spine Instability and Dwarfism: Fiberoptic Intubations for All

*To the Editor:*—Dr. Gerhard Redl is to be commended for his recent case report of cervical trauma in a patient with spondyloepiphyseal dysplasia congenita.<sup>1</sup> Significant injury followed what seemed to be routine endotracheal intubation. Many practitioners are reluctant to report such events, but we owe it to our colleagues and our patients to do so.

Dr. Redl summarized the atlantoaxial instability seen in these patients and in many forms of dwarfism. Even expert reviews of such patients, however, can at times be misleading.<sup>2,3</sup> He recommended "neutral and extension lateral view of the cervical spine" in such cases, with the addition of computed tomography "in the case of suspicion of atlantoaxial instability." However, this is not sufficient. Flexion views are also required.<sup>4</sup> In younger patients, flexion and extension views together may not be diagnostic given the vagaries of cervical spine calcification and the difficulties of patient cooperation. When it is not possible to obtain good, dynamic images, radiologic studies cannot give us *carte blanche* for our handling of the developing or abnormal cervical spine.

Flexible fiberoptic tracheal intubation should now be part of every anesthesiologist's armamentarium. There is ample documentation of cervical movement with conventional laryngoscopy,<sup>5,6</sup> and ample expert opinion recommending and reporting flexible fiberoptic tracheal intubation as the procedure of choice for patients at risk.<sup>1,7-10</sup> All patients at increased risk of cervical spine instability deserve the most conservative and prudent care we can deliver. In cases of possible or confirmed cervical trauma, in chronic and congenital disease states, and in any patient with disproportionate dwarfism,<sup>11</sup> flexible fiberoptic tracheal intubation, or another technique that minimizes cervical spine movement, should be the standard of care.

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*In Reply:*—I thank Dr. Auden for his interest in my case report. I really wanted to stress three points by reporting this tragic event.

1. Every anesthesiologist should be aware of a possible upper cervical instability in this specific patient population.
2. I recommend an accurate diagnostic procedure concerning the cervical region, including exploration, flexion-extension series, and computed tomography. If a patient has signs of cervical instability, a discussion with the neurosurgeon is warranted.
3. In addition, in the case of negative radiologic findings, intraopera-

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tive management must be done with extreme care and should include the use of a cervical collar, flexible fiberoptic tracheal intubation, and accurate postoperative monitoring.

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