

CT Scan Helps Delineate Cervical Osteoid Osteoma and Atypical Nidus

Robert L. Barrack, MD; Mark R. Brinker, BA;**
Stephen W. Burke, MD;† and John M. Roberts, MD‡*

ABSTRACT

Computerized tomography proves to be particularly helpful in anatomically delineating an osteoid osteoma of the spine in an inaccessible area and in also identifying an atypical nidus. A case is presented of an 8-year-old boy with a one-year history of pain in the right shoulder and neck. Computerized tomography accurately delineated in anatomic detail the lesion along with an atypical nidus adjacent to the spinal canal, thus assuring total excision of both lesions. The patient regained normal neck and shoulder motion with no recurrence of pain.

*Dr. Barrack is Chief Resident, Department of Orthopaedic Surgery, Tulane University School of Medicine, New Orleans.

**Mr. Brinker is a medical student, Department of Orthopaedic Surgery, Tulane University School of Medicine, New Orleans.

†Dr. Burke is Associate Professor, Department of Orthopaedic Surgery, Louisiana State University School of Medicine and the Children's Hospital, New Orleans.

‡Dr. Roberts is Professor of Orthopaedic Surgery, Louisiana State University School of Medicine and the Children's Hospital, New Orleans.

For reprints, write Robert L. Barrack, MD, Department of Orthopaedic Surgery, Tulane University School of Medicine, 1430 Tulane Avenue, New Orleans, LA 70112.

When excision of an osteoid osteoma in a surgically inaccessible area, such as the spine, is planned, precise preoperative localization is essential to minimize the surgical approach and ensure removal of all nidus tissue. A case is reported in which computerized tomography (CT) was particularly helpful in anatomically localizing the lesion as well as in identifying an atypical nidus.

Case Report

An 8-year-old Hispanic boy presented at Children's Hospital, with a one-year history of pain in his right shoulder and neck that was worse at night and was partially relieved by aspirin. There was no previous history of trauma or infection. Physical examination revealed point tenderness to palpation of the lateral lower cervical spine on the right side. There was a mild torticollis, with the head tilted to the right, and mild limitation of neck motion in flexion, extension, and lateral bending was also noted.

Plain x-rays showed a lesion of the right seventh cervical pedicle, most evident on an oblique view (Fig 1). Tomograms revealed an enlargement of the pedicle (Fig 2). Technetium bone scan showed a localized area of in-