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CASE REPORT

Dr. Charles Neer's last surgical case: a historical perspective

Frank A. Cordasco, MD, MS[a,*], Lauren E. Wessel, MD[a], Michael D. Hendel, MD, PhD[a], Jonathan B. Ticker, MD[b]

[a]*Hospital for Special Surgery, New York, NY, USA*
[b]*Orlin & Cohen Orthopedic Group, Merrick, NY, USA*

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Modern shoulder surgery has evolved tremendously in recent years. Major advances have taken place in the diagnosis and treatment of various shoulder pathologies, including innovations in the treatment of osteoarthritis, instability, rotator cuff pathology, fractures, and rehabilitation about the shoulder joint. Charles S. Neer II, MD, pioneered much about the shoulder and its treatment. Dr. Neer developed new techniques in shoulder surgery during this period, including the first humeral head replacement in 1952.[8] Furthermore, Dr. Neer's research was pivotal to the development of the field through reporting of his patients' satisfaction and clinical outcomes. For example, despite the relatively basic design of his humeral head replacement, 91% of his patients achieved satisfactory to excellent results at an average of 6 years' follow-up with replacement for glenohumeral osteoarthritis.[7] Dr. Neer's influence went far beyond that of shoulder arthroplasty. His knowledge and expertise encompassed the field of shoulder surgery as a whole, and his landmark papers on the topics of impingement lesions, cuff tear arthropathy, shoulder arthroplasty, multidirectional instability, and glenoid bone grafting, among other contributions, are still broadly referenced.[5-7,9,10] In particular as it relates to this case, he defined impingement syndrome, described the stages of its pathology, and developed surgical treatments to correct it.[6]

Figure 1 Dr. Neer (middle) with his surgical fellows (Dr. George M. McCluskey on the left and Dr. Frank A. Cordasco on the right) during his final surgical case.

In the years since Charles Neer's retirement in 1990, his influence has not been forgotten. In commemoration of his body of work and contributions, this article is a historical perspective, profiling his final surgical case in practice (Fig. 1) and providing 22 years' clinical follow-up on the patient's return to the clinic.

No institutional review board or ethical committee approval was required related to the study.

*Reprint requests: Frank A. Cordasco, MD, MS, Hospital for Special Surgery, 535 E 70th St, New York, NY 10021, USA.

E-mail address: CordascoF@hss.edu (F.A. Cordasco).

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Figure 2 Anteroposterior view of the glenohumeral joint, demonstrating an area of sclerosis on the superior aspect of the right humeral head and a large acromial spur.

Figure 3 Scapular Y view of the glenohumeral joint, demonstrating an area of sclerosis on the superior aspect of the right humeral head and a large acromial spur.

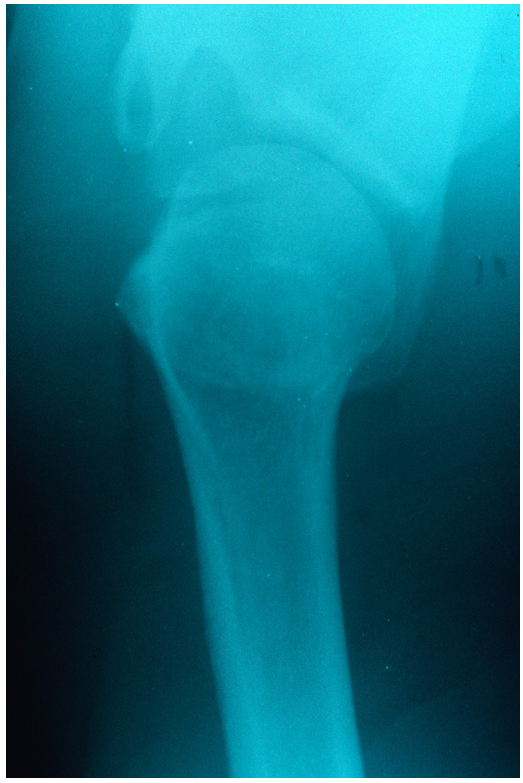

Figure 4 Axillary view of the glenohumeral joint, demonstrating an area of sclerosis on the superior aspect of the right humeral head and a large acromial spur.

Case

A 61-year-old male executive presented for preoperative evaluation by Dr. Neer on January 22, 1990. He had complaints of feeling a "tear" and weakness in his right shoulder after falling downstairs in October 1989. Subsequently, in December 1989, the patient was involved in an automobile accident and described similar complaints associated with this trauma. These combined injuries resulted in the complaints of loss of power and inability to lift. His history was significant for having undergone a successful left open rotator cuff repair performed by Dr. Neer. On physical examination, the patient could not raise his arm to 10° and had weak external rotation. He was noted to have signs of impingement on provocative testing. Imaging studies included radiographs of the right shoulder, which demonstrated an area of sclerosis on the superior aspect of the right humeral head and a large acromial spur (Figs. 2-4).

Assessment and plan

Dr. Neer concluded the principal diagnosis of "two acute" extensions with a large to massive tear. Dr. Neer obtained informed consent, communicating to the patient that there was