

THE TREATMENT OF ACUTE SUBACROMIAL BURSTITIS

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The onset of acute subacromial bursitis often is sudden. There may be a short prodromal period of soreness and aching in the shoulder, but the acute symptoms frequently develop within a period of a few hours. Preceding the onset of the symptoms may be a history of an injury to the shoulder, which may be insignificant or in the nature of a sudden twist or jerk. There may be no immediate pain, but soon after the injury symptoms of an acute subacromial bursitis may develop.

Pain and disability in the shoulder are the outstanding symptoms. The pain is acute and localized to the region of the anterolateral aspect of the shoulder, and often radiates to the side of the neck and region of the attachment of the deltoid muscle. There usually is marked restriction of motion in abduction and in internal and external rotation. Movements are restricted by marked muscle spasm and are associated with acute pain. A limited degree of painless flexion and extension usually is possible. Palpation reveals invariable tenderness over the subacromial region or over the greater tuberosity of the humerus. Occasionally the bursa may be distended.

Subacromial bursitis may occur as an acute serous bursitis or there may be flocculent calcific deposits in the bursa. I have observed several cases in which an acute process developed in a chronic case in which roentgenograms showed a dense calcific deposit in the bursa. This type of case responds well to aspiration and irrigation, but return to normal function is more prolonged.

TREATMENT

The needle aspiration and irrigation method of treatment of acute subacromial bursitis, described by Patterson and Darroch¹, is a simple and effective procedure. I shall describe certain technical points which have proved useful in carrying out this procedure.

The operation is done under local anesthesia. The tender spot beneath the acromion process or over the greater tuberosity is the invariable guide to the bursa. This tender spot is thoroughly injected with $\frac{3}{4}$ per cent novocaine solution, about 25 to 30 cc. being necessary to produce satisfactory anesthesia. A needle is then passed into the bursa and an attempt is made to aspirate material from it. In passing the needle into the bursa, the area of maximum tenderness is the best guide

and is more reliable than anatomic descriptions. Satisfactory irrigation may be carried out with one needle. In other cases, however, two needles may be used, the saline solution being introduced through one needle, and allowed to drain from the other needle. If dense calcification is present, it often can be broken apart with the point of the needle and can be washed out. If the bursa is difficult to aspirate because of a dense calcific deposit or because of flocculent material plugging the needle, the bursa may be punctured in several places, as suggested by Weeks and Delprat². The results are almost as satisfactory as when the bursa can be aspirated thoroughly.

Treatment is greatly facilitated and recovery is hastened if the patient can be kept in the hospital for two or three days. Following operation the patient is placed in bed with the arm in traction in a position of 90 degrees abduction and 90 degrees external rotation. Ice caps are applied to the shoulder during the first twenty-four hours. Hot cloths are then applied for a period of one hour four times each day. After forty-eight hours, motion is fairly free and active exercise can be started. However, the exercises should be graduated so that soreness does not persist because of overactivity.

The period of disability will vary with the requirements placed upon the patient by his occupation. The period of disability for an office worker may be only a few days, while that of a laborer may extend to three weeks.

REFERENCES

1. Patterson, R. L. Jr. and Darroch, W.: Treatment of acute bursitis by needle irrigation, *J. Bone & Joint Surg.*, 19:993-1002 (October) 1937.
2. Weeks, A. and Delprat, G. D.: Subdeltoid bursitis (acute), *Internat. Clin.* 3:40-48 (September) 1936.