



QUESTION | HOW SHOULD I TREAT MY PATIENT WITH AN UNDISPLACED GREATER TUBEROSITY FRACTURE AFTER A FALL?

ANSWER | Fractures of greater tuberosity can occur in isolation or in combination with anterior dislocation of the shoulder. The majority (more than 95%) are either nondisplaced or minimally displaced and can be treated without surgery. If the fragment is displaced posteriorly or superiorly it can lead to impingement or weakness, particularly of external rotation.

The decision to operate is made when the greater tuberosity is likely to catch beneath the acromion or when the displacement will prevent physiological functioning of the rotator cuff. This is often more clearly seen on a CT scan but CT scanning is not required if the fragment is obviously undisplaced on a plain xray. MRI scanning is also not usually needed as it is rare to tear the rotator cuff at the same time as creating a greater tuberosity fracture.

It is usually very clear if the patient needs surgery but there are some borderline cases. Since the bone fragment can be displaced by a haematoma it is worthwhile rexraying these patients after a week if there is any doubt. In some cases the fragment will have settled into a better position and surgery can be avoided.

Surgical treatment is best performed within 2 weeks of the injury.

There are many accelerated rehabilitation programs but it is my experience that the shoulder remains painful for a very long time if the patient is mobilized too early. My preference is to keep the patient in a sling with no exercises for one week. I repeat the xray at that stage and ask them to commence gentle pendular exercises, increasing duration and arc over a two week period. At the three week point I repeat the xray to ensure that there has not been any displacement. If the fracture remains well reduced the patient commences a passive range of motion programme four times a day. At 6 weeks the xray is repeated and the sling removed. They then progress through a rotator cuff strengthening programme as tolerated.

It can take up to 12 months for the patient to restore full function to the shoulder and a some residual loss of motion is common. About 10 per cent of patients require a subacromial injection at 3 months but very few ever need surgical decompression. Most patients also do not end up with ongoing instability even when they have suffered a fracture dislocation.

References:

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