

# Humeral Pseudocyst

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## PRESENTATION

A 48-year-old man presented with neck pain of 2 years' duration. He had had radiation of pain to the left shoulder region for 1 month.

## COMMENTS

The humeral pseudocyst is a well-recognized normal variant that is seen as a radiolucent area in the greater tuberosity of the humerus. It is considered a “don't touch” lesion and should not be mistaken for a pathologic process. This anatomic variant is due to increased cancellous bone in the region of the greater tuberosity. Bone trabeculae are not uniformly distributed throughout the human skeleton, being more prominent and numerous in some regions and being sparse or absent in others. It has been suggested that the trabecular architecture coincides with routes of stress.

On radiographs, the radiolucent zone is oval in shape and is located adjacent to, and involving, the greater tuberosity. The curvilinear inferomedial margin represents a distinct band of trabeculae that separates the relatively compact spongiosa medially from the more



**Figure.** Anteroposterior radiograph of the left shoulder shows an oval area of radiolucency adjacent to, and extending into, the greater tuberosity. There is a thin curvilinear rim inferomedially.

porous bone laterally. With hyperemia and disuse caused by rotator cuff problems or other shoulder disorders, this radiolucent zone may appear even more prominent.

It is important to recognize the humeral pseudocyst and avoid performing a biopsy of it. Other pseudolesions that produce areas of radiolucency may be encountered at the femoral neck (Ward's triangle) and body of the calcaneum.

When there is a question of whether this area of radiolucency is a true lesion or a pseudocyst, magnetic resonance imaging can be of value, because it will show whether the area consists of normal marrow rather than tissue supportive of a neoplasm.

## REFERENCES

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2. Resnick D, Cone RO III. The nature of humeral pseudocysts. *Radiology.* 1984;150:27-28.

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