

CHALLENGES IN

SPORTS MEDICINE & ORTHOPEDICS

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FIGURE 1

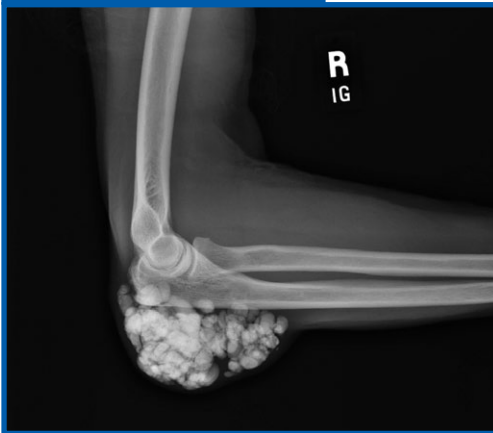


FIGURE 2

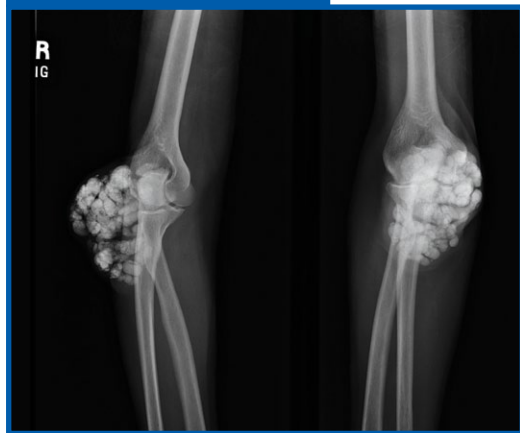


FIGURE 3

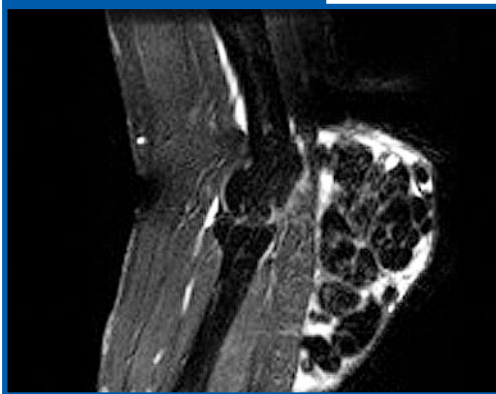
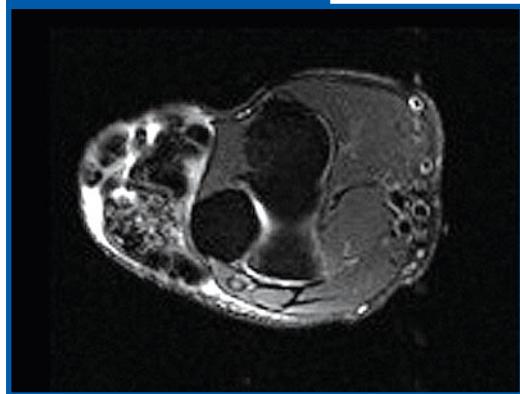


FIGURE 4



A 55-year-old man presents with a chronic nonpainful swelling over his right elbow. He denies any history of trauma or injury to the elbow. Examination demonstrates full range of motion at the elbow. Radiographs (Figures 1 and 2) and MRI (Figures 3 and 4) are completed.

How would you interpret these images?

Dr. Patterson is a sports medicine physician at the National Training Center Sports Medicine Institute. He is board certified in family medicine and spinal cord injury medicine and is fellowship trained in sports medicine. **Dr. Ray** is the medical director of the National Training Center Sports Medicine Institute and is a board-certified orthopedic surgeon specializing in sports medicine. The National Training Center Sports Medicine Institute in Clermont, Florida, specializes in the nonoperative and operative orthopedic treatment of patients of all ages, including elite performance athletes.

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FIGURE 1

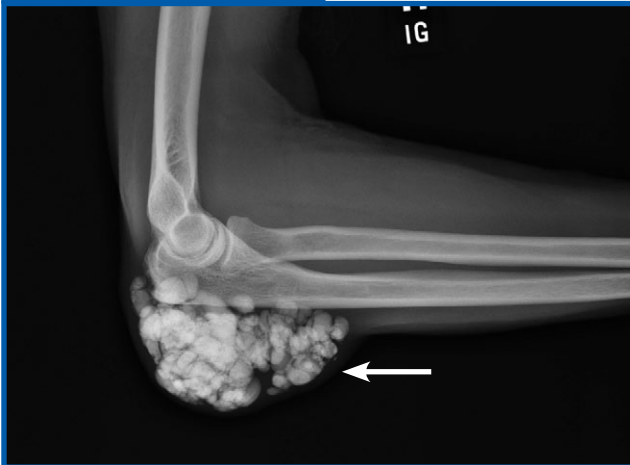


FIGURE 2

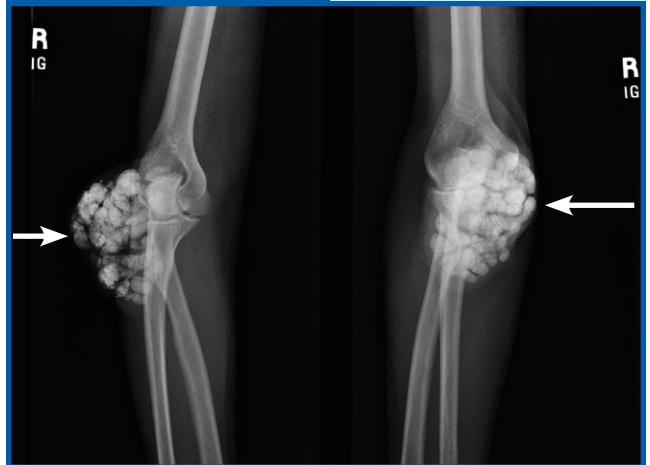


FIGURE 3

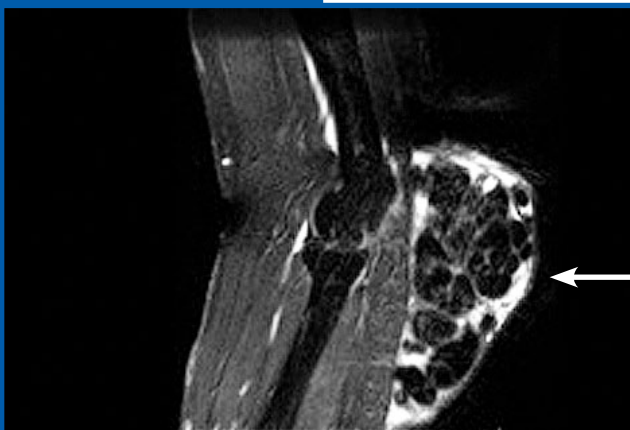
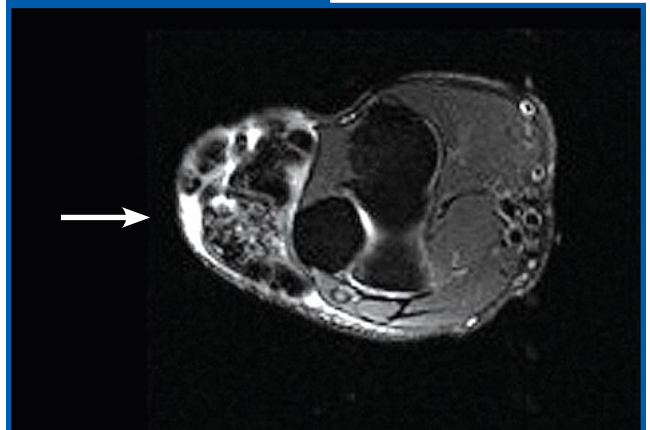


FIGURE 4



Figures 1 and 2 reveal synovial chondromatosis of the right elbow, which is confirmed by MRI. The T₂-weighted sagittal and axial MR images (Figures 3 and 4, respectively) rule out elbow joint involvement. In this case, the chondromatosis as seen on MRI is isolated to the olecranon bursa. Synovial chondromatosis is a rare condition, affecting twice as many men as women¹ and usually involving the knees or elbows. It most commonly develops in middle-aged men and is considered benign with a low risk of becoming malignant. The condition occurs when metaplasia of the synovium in a joint, bursa, or tendon sheath causes cartilage to form in the synovial membrane and joint space, representing a space-occupying process.

As a result, range of motion is limited and pain occurs during movement of the joint. If joint involvement, together with pain in the joint and limited range of motion, is confirmed, surgical debridement and removal of the cartilaginous fragments through arthroscopy is the treatment of choice. This patient did not have joint involvement or pain; however, due to the size of the mass, he underwent surgical excision.

REFERENCE

1. Annunziata CC, Christoforetti JJ II, Argintar EH. Synovial chondromatosis. Medscape. <http://emedicine.medscape.com/article/1254671-overview>. Updated June 10, 2010. Accessed May 19, 2011.