Humeral Head Allograft Reconstruction and Glenoid Reconstruction With Distal Tibial Allograft

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Background
Anterior shoulder instability is the most common form of shoulder instability. Instability events can lead bipolar bone loss on the glenoid and the humerus. Consideration of the combined effect of these bipolar lesions has led to the on-track versus off-track concept. Management of large bipolar lesions may necessitate management of the glenoid lesion and the humeral lesion, which can be performed in a single setting with distal tibial allograft and humeral head allograft, respectively.

Purpose
This video provides an overview and case presentation and demonstrates concurrent reconstruction of the humeral head with a humeral head allograft and glenoid reconstruction with a distal tibial allograft.

Methods
The physical examination of, diagnosis of, and treatment options for shoulder instability in a patient with considerable bipolar lesions are discussed. The case presentation of a 28-year-old man with epilepsy and a history of chronic shoulder instability is discussed. After failed nonsurgical treatment, humeral head allograft and glenoid reconstruction with distal tibial allograft was pursued.

Results
Humeral head allograft reconstruction and glenoid reconstruction with distal tibial allograft was successfully performed in a single surgical setting. Postoperative clinical follow-up demonstrated a reduction in pain and resolution of instability events.

Conclusion
Patients with shoulder instability and large bipolar lesions can be safely treated via humeral head allograft reconstruction and glenoid reconstruction with distal tibial allograft.