HAND
2020, Vol. 15(6) 882–883

DOI: 10.1177/1558944720957732
journals.sagepub.com/home/HAN

Letter to the Editor Regarding: "Radical Resection of a Recurrent Giant Cell Tumor of the Distal Ulna and Immediate Reconstruction With a Distal Radio-Ulnar Joint Implant Arthroplasty"

Vipin Sharma[1] and Kavya Sharma[2]

Dear Editor,

We read with great enthusiasm the article published by Jones and Graham et al titled "Radical Resection of a Recurrent Giant Cell Tumor of the Distal Ulna and Immediate Reconstruction With a Distal Radio-Ulnar Joint Implant Arthroplasty."[1] The authors have succinctly reported their experience with a constrained prosthesis of the ulna after resection of a giant cell tumor (GCT) of the distal ulna.[1] Burke et al used a custom made ulnar prosthesis along with radius sigmoid notch implant and brachioradialis wrap, reporting excellent wrist function.[2] Nine months postoperatively, the patient had resumed all desired activities, including golf, without complaint.

Although there is clear consensus in management of Campanacci grades I and II lesions of GCTs of the ulna with curettage, grade III lesions have been managed by wide resection of the ulna.[3] The literature provides a variety of management options post-resection of the distal ulna, either leaving the ulnar stump alone or with reconstruction by various techniques.

Reconstruction options with allograft, prosthesis, or bone transport with Ilizarov have been reported.[2,4] While allograft reconstruction requires bone bank facilities, Ilizarov bone transport is time consuming, and use of a prosthesis is limited by its availability and cost effectiveness and possible complications like loosening. Hence in our patient with grade III GCT of the right ulna, we chose wide resection of the distal ulna along with ulnar stump stabilization with extensor carpi ulnaris (ECU) tenodesis (Figure 1). The ECU was longitudinally split, and part of it was rerouted through a drill hole made in the proximal ulnar stump (Figure 2). At 1-year follow-up, the functional outcome at the wrist was excellent.

Hence, reconstruction options like ECU tenodesis after wide resection of the ulna can be considered as one of the treatment options in management of recurrent or high-grade

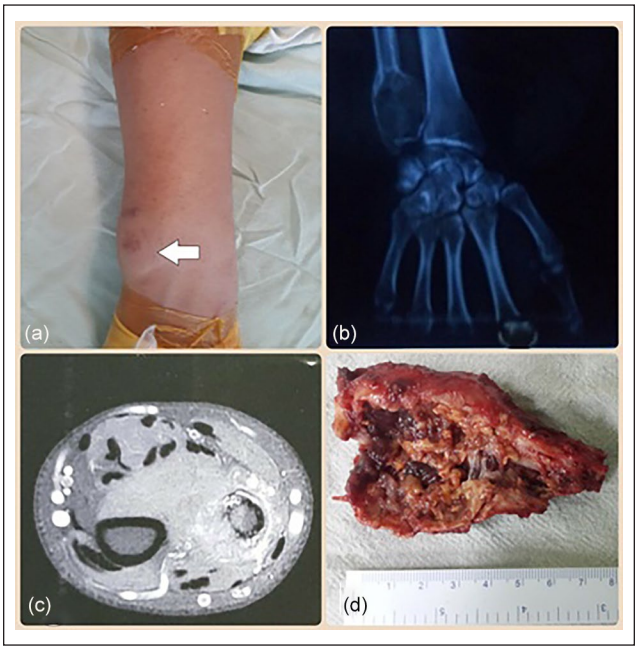

Figure 1. (a) Giant cell tumor right distal ulna. (b) X-ray showing lytic, expansile lesion distal ulna with pathological fracture. (c) Magnetic resonance imaging axial postcontrast image with cortical breach and soft tissue enhancement. (d) Resected tumor specimen sectioned open.

[1]Dr. Rajendra Prasad Govt. Medical College, Tanda, India
[2]MM Medical College, Solan, India

Corresponding Author:
Vipin Sharma, Dr. Rajendra Prasad Govt. Medical College, H No 21, Type 5, Block B, Tanda, Himachal Pradesh, India.
Email vipinsh_hp@rediffmail.com

Figure 2. (a) Wide resection of the right distal ulna. (b) Splitting of ECU tendon. (c) ECU tenodesis to the ulnar stump. (d and e) One-year follow-up showing excellent functional outcome. ECU = extensor carpi ulnaris.

(grade III) GCT of the distal ulna. These reconstruction options can be effectively pursued as a cost-effective method, especially in patients with poor socioeconomic status, and still achieve excellent functional and oncologic outcome.

Statement of Human and Animal Rights

All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2008 (5).

Statement of Informed Consent

Informed consent was obtained from all patients for being included in the study.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

ORCID iD

Vipin Sharma https://orcid.org/0000-0001-8949-9036

References

1. Jones NF, Graham DJ. Radical resection of a recurrent giant cell tumor of the distal ulna and immediate reconstruction with a distal radio-ulnar joint implant arthroplasty [published online ahead of print January 22, 2020]. *Hand (N Y)*. doi:10.1177/1558944719895779.
2. Burke CS, Gupta A, Buecker P. Distal ulna giant cell tumor resection with reconstruction using distal ulna prosthesis and brachioradialis wrap soft tissue stabilization. *Hand (N Y)* 2009;4(4):410-414.
3. Pathak AC, Shahane SM, Samant A, Kapopara H. Unusual case of giant cell tumor in distal ulna. *Astrocyte* 2015;1:317-319.
4. Stoffelen D, Lammens J, Fabry G. Resection of a periosteal osteosarcoma and reconstruction using the Ilizarov technique of segmental transport. *J Hand Surg* 1993;18:144-146.