

Case Discussion: Large Enchondroma in Patient with Hemiplegic Cerebral Palsy

3/31/2021

Moby Parsons

I have seen a case similar to this and ultimately an axillary nerve issue was underlying it so without innervation the deltoid can just stretch endlessly. Ultimately after maximizing lateralization and constraint, I put him in a gunslinger brace in a position of shoulder fusion and made him wear it for four months and he scarred in enough that he has now been stable for about 6 months but still has absent deltoid function. May send him Bassem for that.....

3/31/2021

Bassem Elhassan

Dear Gus,

What a case

Thank you very much Moby for your comments.

I agree with Moby about ? The deltoid. I worry either the nerve is not normal or the deltoid is damaged. It is apparent on imaging with progressive stretching and widening of the joint and eventually dislocation despite everything that has been done.

I have taken care of two very similar cases with similar implant. In both of them of them there was definite damage to the deltoid.

So this is what was done:

- 1- Remove the current stem and revise after reconstructing the proximal humerus with allograft.
- 2- Latissimus or lower trap transfer for ER
- 3- Pedicled pect transfer for deltoid reconstruction (if deltoid deemed injured)

I do have video technique and I and happy to share it with you.

Best of luck

Cheers

B :)

3/31/2021

Mark Frankle

[https://www.jshoulderelbow.org/article/S1058-2746\(17\)30610-9/pdf](https://www.jshoulderelbow.org/article/S1058-2746(17)30610-9/pdf) here is my experience in treating around 50 dislocating reverses hope this helps

3/31/2021

Andrew Jawa

Gus,

I have found the attached technique from Bob Tashjian, Kortnie Broschinsky, and Peter Chalmers to be very helpful in a similarly difficult situation. Not a great outcome, but a stable joint. I know others have had a similar experience with this technique.

Andy

3/31/2021

Eric Wagner

Thank you for sharing this difficult and complex case. I usually don't post or respond, but do feel I can help to add to what has already been said by Drs. Frankle, Elhassan, Warner and Jawa. I have had the opportunity to treat around 10 failed massive endoprosthesis reverses secondary to recurrent instability (usually from a prior tumor resection). I do feel the key to getting them stable is the soft tissue stability.

Naturally, as Bassem and others suggested, assessing the function of the axillary nerve and deltoid is critical and will change your approach. If it is at all functional, I have found revising to an APC with a reverse with a constrained liner and inferiorly tilted and maximally lateralize glenosphere (to help counteract natural dislocation forces) can work well, when combined with a latissimus dorsi transfer to the infraspinatus cuff on the allograft, a pec major transfer to the subscapularis on the allograft, and tightening or transferring the deltoid to its insertion on the allograft (if needed). In these cases, it is very important to almost oversize the allograft to maximize tension, as well as do a step cut to control for rotational stability in addition to a locking-compression plate (or two).

If the axillary nerve is not functional, although you can try the above technique as it will give you some soft tissue tension in the axial plane, I do agree with Bassem that utilizing a pedicled pectoralis for the deltoid is preferred to inserting it on the subscapularis insertion as it will give you better tension in the coronal plane.

I have included a dropbox link to a case presentation from the Trans-Atlantic Shoulder Conference on one of the patients that I treated with the APC-RSA with tendon transfers successfully (with a technique video embedded into it):

<https://www.dropbox.com/s/5t3629csydrqz4n/Endoprosthesis%20Revision-%20WagnerE.pptx?dl=0>

-Eric

3/31/2021

Mark Frankle

Agreed helpful trick

3/31/2021

Jay Keener

Gus,

Have you considered a cerclage suture construct described by Bob Tashjian? It would allow you to keep the current implants and may provide enough stability for a while to allow things to scar down a little. Essentially - fibertapes placed through bone tunnels in the glenoid and then around and through the stem. Tie securely with the shoulder reduced. If the baseplate is fixed you could pop off the glenosphere, remove one screw and pass the fibertapes through the screw hole, then replace the glenosphere. This is easier than trying to drill A to P through the glenoid. I have done this twice. Bob has a paper re technique. May not work if the deltoid is really out but this could be a reasonable option for this patient before a more complex revision.

4/8/2021

Bassem Elhassan

Dear Gus

What a case

Sorry about all the hustle.

The progressive stretching and instability is an indication for deltoid damage/stretch/injury.

So, in my opinion, will need to take the stem out, do proximal humeral reconstruction with an allograft, revise the stem, with possible either latissimus or lower trap for external rotation and most importantly, if the deltoid appeared to be damage, then possible pedicled pect transfer.

I do have videos of the technique and I am happy to share them with you

Best of luck

Cheers

B :)