Date (CSS Member)	Message	Attached Documents
9/11/18 (Dr. Jon Warner)	Dear CSS Members: Enclosed is a case from Kyong Min, MD. This follows the theme of problematic cases of posterior instability in young people and should emphasize the unmet need of our skills in treating these problems. Seems there is an opportunity for futher clarity here. In any case, please send comments for us to post on this case so Dr. Min and his patient have the benefit of your insight and input. Best, JP Warner, MD	Case Presentation PPT
9/11/18 (Dr. Stephen Parada)	Kyong- This is another huge problem in the military: active-duty service-members with unrecognized glenoid dysplasia who have posterior instability and go on to develop early arthritis. I've attached the references of some of the relevant articles that we've produced on this subject, I think it demonstrates that there is clearly a need for a multi-center study group to look at this issue. I noted that you didn't include any MRI cuts on this patient, do you have a MRI that demonstrates the status of his posterior labrum? He will have a hypertrophic posterior labrum +/- a tear, but a labral tear can still be fixed and patients can have improved outcomes. (Galvin JW, Morte DR, Grassbaugh JA, Parada SA, Burns SH, Eichinger JK. Arthroscopic treatment of posterior shoulder instability in patients with and without glenoid dysplasia: a comparative outcomes analysis. J Shoulder Elbow Surg. 2017 Dec;26(12):2103-2109. doi: 10.1016/j.jse.2017.05.033. Epub 2017 Jul 19. PubMed PMID: 28734714.) I think proceeding in a step-wise fashion in these patients makes sense progressing from less-invasive to more invasive (posterior labral repair/tenodesis -> bony glenoid reconstruction -> arthroplasty) I would recommend addressing the biceps at the time of any surgery with a biceps tenodesis as these patients always seem to	

	have biceps tendinopathy from the posterior station of the humerus resulting in tension on the intra-articular segment of the biceps. In patients who fail a posterior labral repair, I have been performing an arthroscopic posterior glenoid augmentation with allograft distal tibia: (Parada SA, Shaw KA. Graft Transfer Technique in Arthroscopic Posterior Glenoid Reconstruction With Distal Tibia Allograft. Arthrosc Tech. 2017 Oct 16;6(5):e1891-e1895. doi: 10.1016/j.eats.2017.07.008. eCollection 2017 Oct. PubMed PMID: 29416976; PubMed Central PMCID: PMC5797295.) My numbers are small, but like many reconstructive procedures, the results seem to decrease if they already have more than mild arthritis. Joe Eichinger & Tiger put together a review on glenoid dysplasia and you can see that the existing literature is certainly not extensive, there is still a lot to learn in the treatment of these patients. (Eichinger JK, Galvin JW, Grassbaugh JA, Parada SA, Li X. Glenoid Dysplasia: Pathophysiology, Diagnosis, and Management. J Bone Joint Surg Am. 2016 Jun 1;98(11):958-68. doi: 10.2106/JBJS.15.00916. Review. PubMed PMID: 27252441.) Lastly, I would avoid early arthroplasty in this group - when we looked up our active-duty patients across all services, the results are predictably poor, ~40% retention on active duty at 2 years, more than 1/3 get kicked out of the military for persistent disability and an overall complication rate of almost 25%. These are some of the most challenging arthroplasty cases and the results are not encouraging. (Kusnezov N, Dunn JC, Parada SA, Kilcoyne K, Waterman BR. Clinical Outcomes of Anatomical Total Shoulder Arthroplasty in a Young, Active Population. Am J Orthop (Belle Mead NJ). 2016 Jul-Aug;45(5):E273-82. PubMed PMID: 27552465.)	

	Good luck and let us know what you end up doing. -Steve	
9/11/18 (Dr. Lawrence Gulotta)	Kyong, I whole-heartedly agree with Steve's well thought out and researched advice. I do not have the literature to cite for my own practice because the numbers are small, but in general I would progress from arthroscopic posterior labral repair for symptomatic relief, to arthroscopic posterior DTA, to finally arthroplasty – just has Steve outlined. In addition, my experience with arthroplasty in these patients has been unpredictable at best. Glenoid osteotomy is another option that is often considered in these situations. I have done 2 with both rapidly developing arthritis over 2-5 years. It makes sense to me know that would happen since a posterior opening wedge osteotomy uses the posterior glenoid to "push" the head back to the center. In a way, I think it can be seen as an overloading osteotomy in these patients, not really an unloading osteotomy as is performed in the knee. Curious to hear if others in the group have had more success, and where osteotomy is in your algorithm. Best, Larry	
9/11/18 (Dr. Jon Warner)	I agree with a multicenter initiative. I know Larry Gulotta mentioned posterior osteotomy. I've done this with generally poor outcomes and I think I've shared some of those cases. Gilles Walch wrote on this population years ago with a very pessimistic approach. We probably can liken this to posterior acetabular dysplasia. Would you do a labrum repair in such a patient? JPW	
9/11/18 (Dr. Peter Millett)	All great points – these are tough cases. Opening wedge and closing wedge are challenging because of the complex 3d deformity. I do posterior soft tissue repair with labral advancement into the chonrdal defect if not too deceneterd (< 25%). If > 25 percent post translation and glenoid dysplasia, do DTA to contain head.	

	IF the deformity is purely retroversion, could try opening wedge osteotomy from back which I learned from JPW. Anterior closing wedge is possible and makes sense biomechanically but requires coracoid osteotomy. Have done it in lab only. For older patients or with DJD, I prefer RTSA. Good luck Peter	
9/11/18 (Dr. Jon Warner)	Anterior closing wedge tried by Walch and abandoned and I never tried, but would be happy to see someone else's spectacular attempt. That said, I've followed a number of patients several years after opening wedge osteotomy and in retrospect it did not help their pain. JPW	