

Editorial Commentary: A Delphi Expert Consensus Provides Clarity on Diagnosis, Treatment, Rehabilitation, and Return-to-Sports for Posterior Shoulder Instability



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Abstract: Posterior shoulder instability (PSI) is an uncommon condition, accounting for 2% to 12% of shoulder instability cases. However, PSI might be more common and possibly accounts for up to 24% of all young, active patients treated for shoulder instability. The etiology of PSI is complex and multifactorial, making accurate diagnosis, classification, and treatment challenging. The accurate diagnosis of PSI is problematic and varies with symptoms ranging from pain, decreased strength, or endurance to mechanical symptoms such as clicking or popping, and only a minority of patients present after a posterior shoulder dislocation. Appropriate imaging is necessary and should include radiographs and advanced imaging with magnetic resonance imaging, preferably magnetic resonance arthrography. The goal of treatment is to reduce pain, improve function, and prevent or reduce recurrence. Both surgical and conservative treatments are demanding, and both osseous and soft-tissue pathologies need to be addressed adequately. Typically, a conservative approach should be considered first for the first 6 months, with a focus on proprioceptive exercises, strengthening of the dynamic stabilizers, and improving scapulothoracic mechanics. The primary indication for surgery is recurrent symptoms. Controversies exist regarding the choice between open and arthroscopic stabilization of soft-tissue defects, the treatment of the McLaughlin lesion, and the management of osseous defects.

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Posterior shoulder instability (PSI) is a relatively uncommon condition and accounts only for 2% to 12% of shoulder instability cases.¹ However, recent reports suggest that PSI might be much more common, potentially accounting for up to 24% of all young, active patients treated for shoulder instability.¹ Paksoy et al.¹ proposed that this could be the result of misinterpretation of symptoms, suggesting that PSI might not present as an instability event but rather manifests as shoulder pain during exertion.¹ This is certainly a compelling idea, but it requires further evidence. There is no doubt that the etiology of PSI is complex and multifactorial, making accurate diagnosis, classification, and treatment challenging. Posterior shoulder dislocation was first reported by McLaughlin in 1952, who first

described the reverse Hill-Sachs, which is also known as the McLaughlin lesion.²

One of the initial challenges is the accurate diagnosis of PSI. The clinical presentation varies, with symptoms ranging from pain, decreased strength, or endurance to mechanical symptoms such as clicking or popping, and only a minority of patients present after a posterior shoulder dislocation.³ Clinically, the Kim test seems highly beneficial, with an apparent sensitivity of 97% for detecting posterior instability when both the jerk test and the Kim test yield positive results.⁴ Once PSI is suspected, radiographic imaging is necessary and should include appropriate radiographs and advanced imaging with magnetic resonance imaging (MRI), preferably magnetic resonance arthrography. Kim's classification has been helpful in clarifying the radiographic findings, with type I denoting incomplete detachment, type II representing the typical Kim lesion, type III indicating chondrolabral erosion, and type IV describing a flap tear.⁵ Moroder et al.⁶ introduced the

ABC classification of PSI and offered recommendations on how to manage the various types.⁶

Once a diagnosis is established, a treatment plan can be formulated with the goals of reducing pain, improving function, and preventing or reducing recurrence.³ This can be particularly challenging, as treatment depends on both osseous and soft-tissue pathologies.³ Although algorithms can provide guidance, each patient should be treated on a case-by-case basis, often making this a complex issue.³ Typically, a conservative approach should be considered first for the first 6 months, with a focus on proprioceptive exercises, strengthening of the dynamic stabilizers, and improving scapulothoracic mechanics.^{3,7} In general, the primary indication for surgery is recurrent symptoms. Controversies exist regarding the choice between open and arthroscopic stabilization of soft-tissue defects, the treatment of the McLaughlin lesion, and the management of osseous defects.^{3,7,8}

When evidence is insufficient, controversial, or disputed, expert consensus studies can be helpful in developing guidelines and recommendations. Remarkably, *Arthroscopy* has been at the forefront of this effort since 2018, when it published an editorial about the Delphi process and provided guidelines on its application in the “Research Pearls” series.^{9,10} However, the Delphi method is not a panacea. Although it serves as a valuable addition or even alternative to evidence-based medicine, it requires strict adherence to its methodology and execution to ensure reliable outcomes.¹¹

And this is where the study published in 2 parts by Hurley and the Posterior Shoulder Instability Consensus Group may potentially address a gap.^{12,13} In their 2 articles named “Posterior Shoulder Instability Part I—Diagnosis, Nonoperative Treatment, and Labral Repair for Posterior Shoulder Instability—An International Expert Delphi Consensus Statement” and “Posterior Shoulder Instability Part II—Glenoid Bone Grafting, Glenoid Osteotomy, and Rehabilitation/Return To Play—An International Expert Delphi Consensus Statement,” the authors have addressed this difficult topic through a Delphi study and were able to recruit international experts in this field.^{12,13} They have divided their study into distinct components covering diagnosis, nonoperative treatment, labral repair, bone grafting, osteotomies, as well as rehabilitation and return-to-sports.^{12,13} What can be stated safely is that the authors have adhered to the Delphi method and, as such, have given value to the statements that achieved consensus. In the diagnostics section, the authors achieved consensus on all items except whether MRI or computed tomography (CT) imaging should be performed as MRI respectively CT arthrogram. I find this somewhat surprising. Considering that MRI arthrography has only an 86% sensitivity in detecting labral lesions,¹⁴ I would have expected the panel to agree that

both CT and MRI must include intra-articular contrast. Another potential criticism for this section is that the authors have combined multiple points into a single answer. For instance, they grouped various aspects of patient examination, such as the sulcus sign, range of motion, and neurologic examination. This could be problematic if a panel member believes that some of these tests are unnecessary and disagrees with the inclusion of all components into a single item, leading to an “all-or-nothing” response.

This criticism is applicable to the other sections as well. Notably, the panel unanimously agrees that conservative treatment should be the initial approach, which I believe is one of the key takeaways from this Delphi. Regarding labral repair, the panel addresses the current controversies, including indications and contraindications, and various technical aspects such as open versus arthroscopic approaches, patient positioning, and the number of portals and anchors, and offers recommendations on these aspects. This section is helpful for surgeons and can provide some guidance. Similar observations can be made about the glenoid bone grafting and osteotomy sections. The rehabilitation and return to play section is extensive, containing 14 statements. Surprisingly, the panel reached a consensus on all of them, indicating that these topics are seemingly well understood. However, the panel focused solely on the postoperative aspects and did not address rehabilitation and return to play after conservative treatment, which is a limitation of this Delphi study. This notion is supported by a recent meta-analysis showing an 88% return to any level of sports, although only 68% were able to return to their preinjury level regardless of the surgical procedures, rehabilitation, and return-to-sports protocols used.¹⁵ This is certainly encouraging and may suggest that we are already effective in rehabilitating this condition, or more simply that specific rehabilitation techniques may not significantly affect outcome at all. Clearly, there is still room for improvement.

Finally, the authors and the panel deserve congratulations for their tremendous effort. Their work has offered valuable insights, and tapping into the collective wisdom of our experts is always tremendously beneficial.

Disclosures

The author declares the following financial interests/personal relationships which may be considered as potential competing interests: board membership at *Arthroscopy*.

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