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Management of the first-time lateral patellar dislocation: Improving care across the UK

David Sands Johnson and Andrew John Metcalfe

Lateral patellar dislocation is a common condition that Trauma and Orthopaedic units manage on a regular basis. There is paucity of information in the literature about the best way to manage both first-time and recurrent dislocation, with increasing evidence showing a wide variation in management between treating clinicians and units. This issue was identified by the British Patellofemoral Society (BPFS) and the British Association for Surgery of the Knee (BASK) Patellofemoral working group, following a presentation at the BASK Annual Conference in 2018 which was subsequently published¹.

Following discussion the BPFS and the BASK Patellofemoral working group created a project to assess the evidence, with a view to creating standards of care to be published within a British Orthopaedic Association for Standards in Trauma and Orthopaedics (BOAST) guideline. In addition, it was identified as a key area for future research to be prioritised and acted upon.

Current management and treatment

Lateral patellar dislocation has a peak incidence in the second decade of up to 43 cases per 100,000. Recurrence is frequent and greatest

in those who have anatomical abnormalities (especially patella alta or trochlear dysplasia) and/or joint hyperlaxity, although quoted rates vary from 10 – 50%. Up to 70% have some sort of ongoing symptoms such as subjective instability or pain. Those at risk of recurrence at first presentation include those younger than 18 years, females, those with a previous contralateral dislocation or family history of dislocation and those with associated developmental abnormalities. Operative intervention is recommended for some associated injuries, but there is much debate about whether primary stabilisation surgery should be undertaken or not. It is generally felt that although there is a high recurrence rate, as with ACL injuries,

many patients do not require stabilisation, so surgical stabilisation should be reserved for recurrent instability. When undertaken it is important that the appropriate procedure be performed, following appropriate assessment. Guidance on the assessment and surgical management of recurrent patellar instability has already been published within two BOASTs produced in association with BASK and the BPFSS^{2,3}. For conservative treatment of first-time dislocation, more is understood but variation in practice is wide with some therapies in use that may be outdated or even harmful.

Creating guidance for the future

Both the BPFSS and BASK are keen that more uniform treatment is delivered for patients with a first-time patellar dislocation, so that they can achieve a good outcome without compromising future

care. The approach used to promote good practice is to develop a BOAST for first-time lateral patellar dislocation. The Society felt it important that the guidance be created

by as inclusive a group as possible, covering a range of disciplines, rather than a small working group. As a result, following publication of a summary of the literature¹, a series of ten questions were created to be asked of the membership of the BPFSS. These were posed, in four break out groups, to the 102 delegates attending the First BPFSS meeting in January 2020. The delegates included orthopaedic surgeons, physiotherapists and musculoskeletal radiologists. Aside from the clinical questions posed

it became clear that there was a need to develop guidance that could be applied in any healthcare setting, providing a route to

delivery of best care. Also it was felt that the guidelines should be written in such a way that the standards could easily be audited, and results used to help clinicians change protocols / services to improve practice. Following this a draft BOAST was created with each and every item debated with the 17 attendees at the BPFSS committee meeting held in November 2020. A revised document is currently being finalised for consultation with the 200+ members of the BPFSS (although the consultation is open to non-members who wish to provide their input) prior to submission to the BOA for publication during 2021.

Proposed best practice

Following the process above, the new BOAST will outline both how patients should be assessed and initially treated after a first-time patellar dislocation. The guidelines will set standards for service requirements to deliver these standards, but leaves the organisation of this to the implementing unit. This is on the understanding that the facilities available across the country vary widely depending on geography, funding and organisational history.

The guidelines also promote practice that will enable rapid diagnosis of associated injuries, along with guidance for their management. It will be recommended that most patients >>

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will be treated conservatively, with proposals that move away from historical treatments, such as cast immobilisation, that are known to delay recovery. Surgical treatment will be recommended for a limited range of conditions, such as displaced osteochondral fractures. There will be emphasis on abandoning the use of an isolated lateral release which has no place in the management of this condition.

Future research

In creating the guidance, the BPFS and the BASK Patellofemoral working group fully acknowledges that there are significant gaps in the literature. The BPFS plans to review where this knowledge is lacking and proposes to work collaboratively to set up studies, which will ultimately change practice to be reflected in future editions of the BOAST. As a result, the current BOAST proposed will be the first version of many to come.

Conclusion

First-time patellar dislocation is a common condition that can present to any Trauma and Orthopaedic unit. Although treated well at most units, significant variation still exists

in management of this condition, especially with respect to non-operative interventions. The BPFS is creating a BOAST to help guide clinicians as to best practice. The process used to develop the guidelines has been as inclusive as possible with multi-disciplinary involvement. The Society acknowledges the wide gaps in evidence for best practice and will promote research to answer questions that will ultimately be contained within future revisions of the BOAST. ■

References

1. Johnson DS, Turner PG. Management of the first-time lateral patellar dislocation. *Knee*. 2019;26(6):1161-5.
2. British Orthopaedic Association (2020). The Assessment of Patients with Recurrent Patellar Instability. Available from: www.boa.ac.uk/resources/assessment-of-patients-with-recurrent-patellar-instability.html.
3. British Orthopaedic Association (2020). The Surgical Management of Recurrent Patellar Instability. Available from: www.boa.ac.uk/resources/surgical-management-of-recurrent-patellar-instability.html.

Take home messages

- Lateral patellar dislocation is a common presentation to T&O departments, but treatment is variable around the UK.
- The BPFS and BASK are working together to create guidelines using the same evidence-based consensus approach that they used for the recurrent dislocation BOASTs.
- Guidelines will have broad multi-disciplinary involvement, with a national consultation period to review them before submission.
- Most people with first time patellar dislocations do not need surgery, and isolated lateral release is never indicated, but clinicians should be aware of the possibility of osteochondral fractures after dislocation.