BACKGROUND

Hypermobility may be a risk factor for musculoskeletal injuries during sports participation. However, we have seen a low incidence of chondral injuries requiring treatment in patients undergoing medial patellofemoral ligament (MPFL) reconstruction for patellofemoral instability. It is unknown if patients with ligamentous laxity, who are at an increased risk for patellofemoral instability, are somewhat protected from chondral injury.

CLINICAL RELEVANCE: DOES LIGAMENTOUS LAXITY PROTECT AGAINST CHONDRAL INJURY IN PATIENTS WITH PATELLOFEMORAL INSTABILITY?

METHODS

In patients undergoing MPFL reconstruction for patellofemoral instability, patients with ligamentous laxity would be less likely to have chondral defects requiring surgical intervention.

RESULTS

Preoperative MRIs were evaluated for:
- Chondral injury present/absent
- Size/location of chondral injury
- Outerbridge grade

RESULTS CONTINUED

13.1% of LAX patients were found to have had femoral chondral injuries compared to 26.4% of non-LAX patients (OR: 0.42, p=0.073). In addition to the decreased likelihood of femoral chondral injury, LAX patients were also less likely to have femoral grade IV chondral injury compared to non-LAX patients (14.3% vs. 46.2%, p=0.023).

There was no association of chondral injury with:
- Trochlear morphology (p=0.843)
- Patellar height (p=0.303)
- TT-TG (p=0.874)
- Number of instability events (p=0.878)
- Age at time of surgery (p=0.482)
- Contact vs non-contact mechanism of injury (p=0.772)

DISCUSSION

- LAX patients had a slightly higher proportion of patellar chondral injuries compared to non-LAX patients, but that difference was <5%.
- In femoral chondral injuries, LAX patients were 58% less likely to have had a femoral chondral injury compared to non-LAX patients, a difference we found to be clinically meaningful.
- For patients who sustained patellar or femoral chondral injuries, LAX patients were less likely to have had grade IV injuries compared non-LAX patients.

REFERENCES