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Torsional Limb Deformities in Patients with Lateral Patellar Dislocation:

An Expert Survey of the International Patellofemoral Study Group

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Faculty Disclosure Information

- Nothing to disclosure

Purpose

To evaluate current knowledge and discover potential controversies

in treating torsional deformities of the lower limb

in patients with lateral patellar dislocation (LPD).

Methods

An online survey was distributed to all active International Patellofemoral Study Group (IPSG) members in 2023.

The survey included 21 questions to determine the diagnostic workup, indications, and surgical techniques for the treatment of torsional limb deformities in patients with patellofemoral instability.

Results

Thirty-five members (54%) completed the questionnaire.

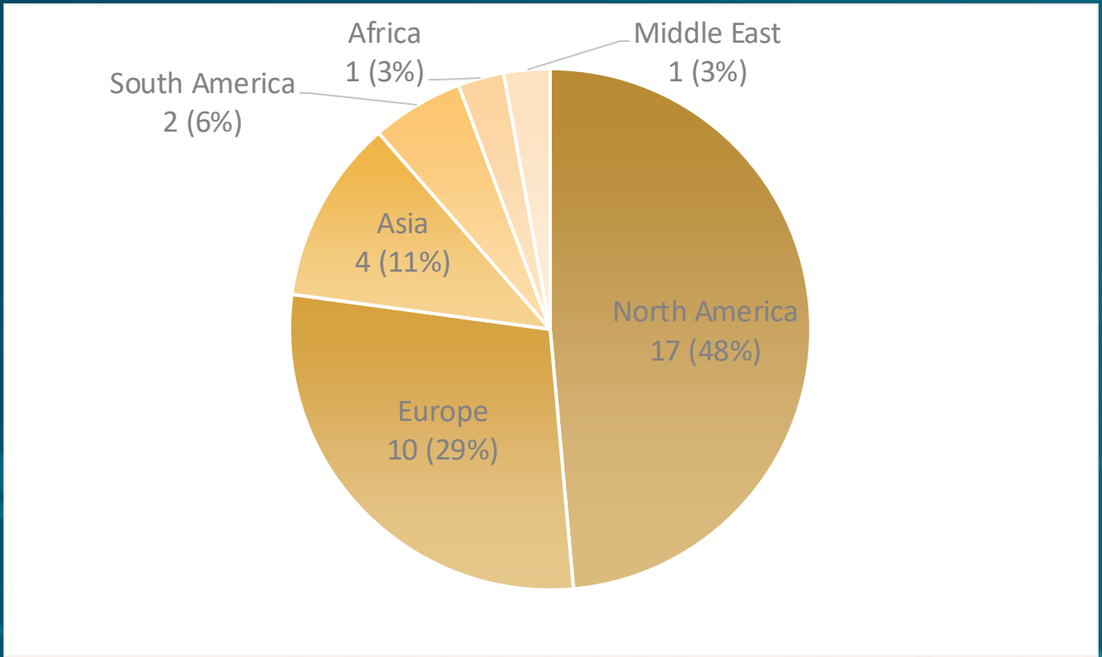

Figure 1. *Professional location of the survey participants. IPSG, International Patellofemoral Study Group.*

Results

The responding experts conduct a hip-knee-ankle MRI or CT following first-time and recurrent patellar dislocation

based on clinical examination (43% and 49%, respectively),

routinely (6% and 23%, respectively), or

not at all (51% and 29%, respectively).

Results

The most important factors for performing rotational osteotomy are

abnormal torsion,

abnormal gait pattern,

revision cases,

and recurrent patellar instability.

Results

Most surgeons (78%) agree on a cutoff value of

> 25° of femoral ante-torsion and
> 35° of external tibial torsion

to perform rotational osteotomy,

but the preferred measurement techniques vary.

Results

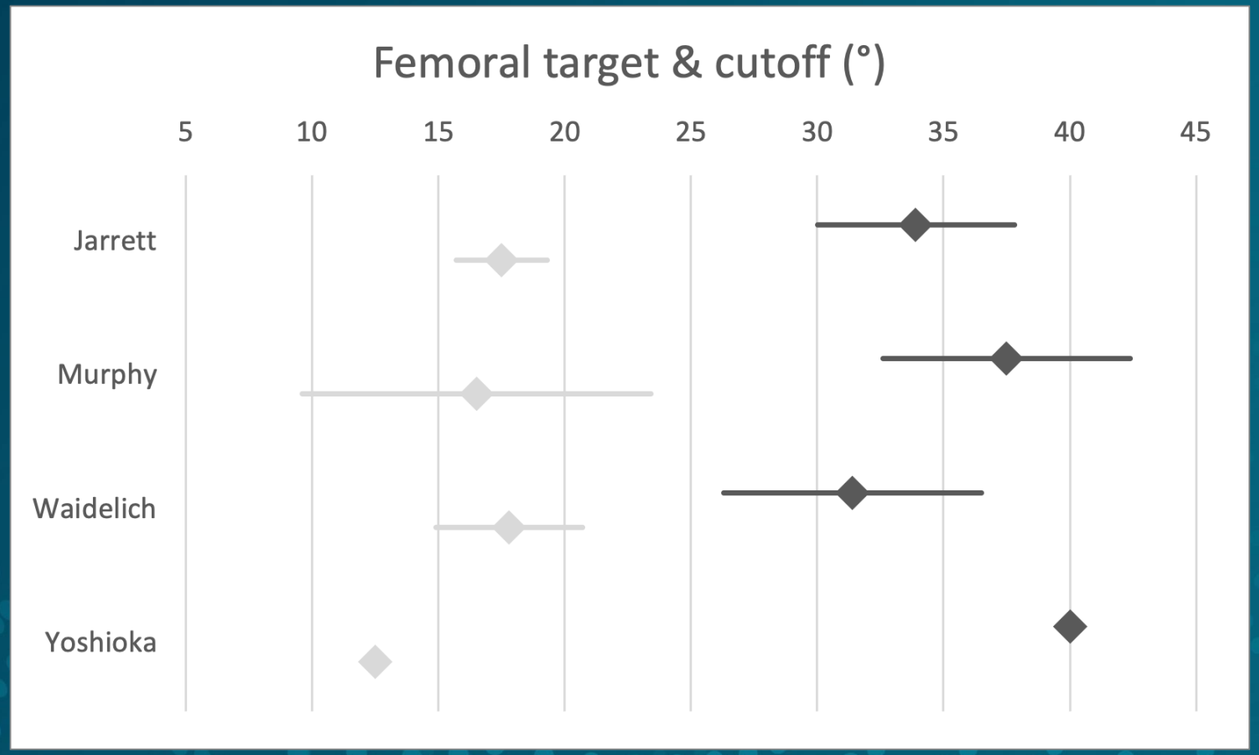

Figure 2. The diagram shows the surgeons' cut-off values (mean, 95% confidence interval) for performing derotational osteotomy of the femur (dark grey) and the targeted values of femoral ante-torsion post-surgery (light grey) according to their preferred measuring technique.

Results

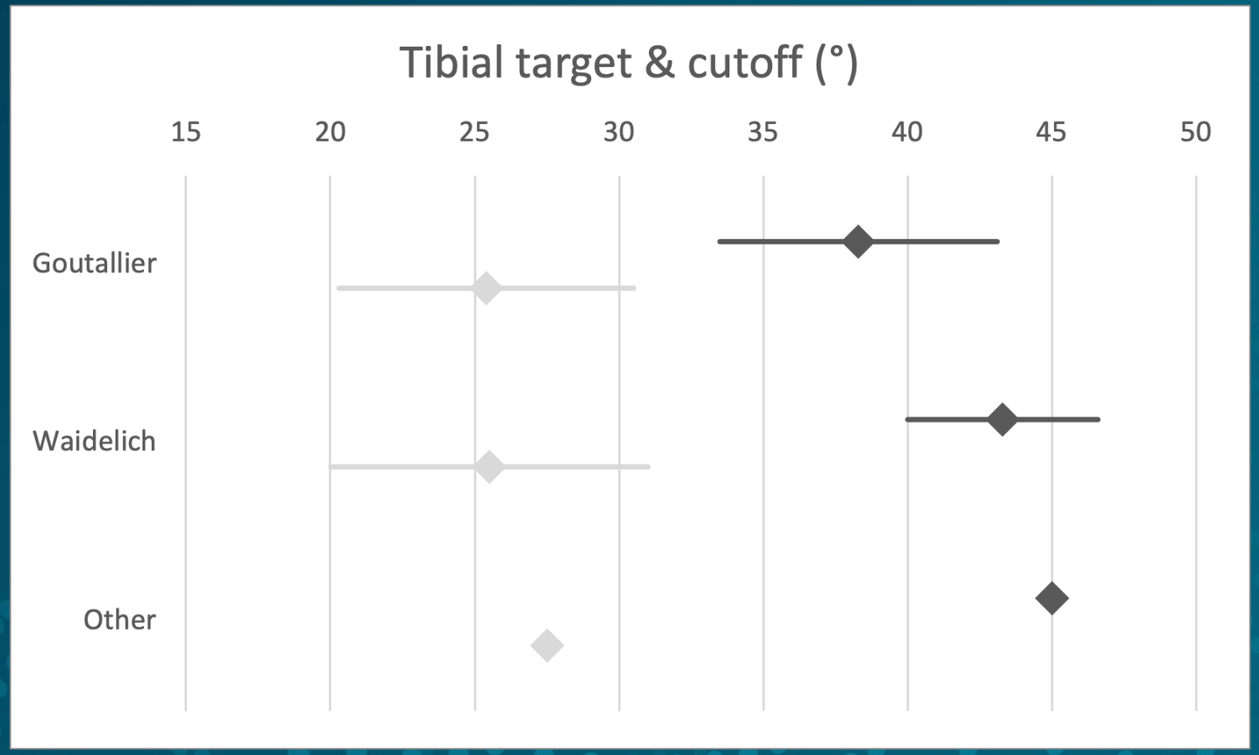

Figure 3. The diagram shows the surgeons' cut-off values (mean, 95% confidence interval) for performing derotational osteotomy of the tibia (dark grey) and the targeted values of tibial external torsion post-surgery (light grey) according to their preferred measuring technique.

Conclusion

- Torsional deformities of the lower limb

  are a clinically relevant topic in the management of recurrent LPD.

- Although the caseload is low, most experts perform rotational osteotomies.

- Diagnostic and therapeutic algorithms overlap widely between surgeons,

  but the indication and cutoff values for performing derotational osteotomy

  must be further established.