NYU Langone Health

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Outcomes Following Discoid Meniscus Surgery in Children

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No conflicts of interest to report.

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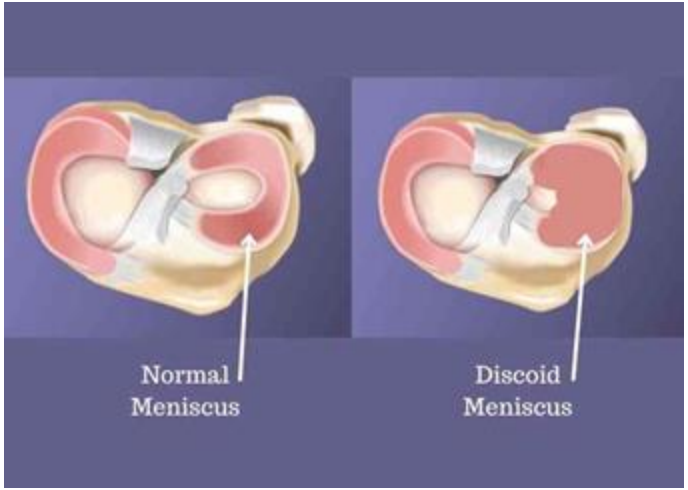
Surgical Outcomes of Symptomatic Discoid Meniscus Tears

A Retrospective Study

- **Study Focus:** Evaluating surgical repair outcomes in pediatric patients with symptomatic discoid meniscus tears.
- **Research Method:** Retrospective analysis of pediatric cases from 2014-2024, assessing surgical techniques and reoperation rates.
- **Clinical Relevance:** Understanding factors influencing revision surgery to improve patient outcomes.



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Methods

Study Design and Data Collection

- **Study Type:** Single-institution retrospective review of pediatric patients with discoid meniscus tears.
- **Patient Criteria:** Patients under 18 who underwent surgery between 2014-2024, with ≥12 months follow-up.
- **Data Collected:** Tear location, pattern, surgical technique, and need for revision surgery.

Results: Patient Demographics

Age, Gender, and Meniscus Involvement

- **Patient Count:** 44 patients met inclusion criteria, with a mean age of 12.55 ± 2.69 years.
- **Gender Distribution:** 56.8% female (25 patients) and 43.2% male (19 patients).
- **Meniscus Involvement:** 86.4% lateral meniscus, 4.5% medial, 9.1% both medial and lateral.

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Results: Tear Patterns & Surgical Techniques

Types of Tears and Treatment Approaches

Tear Patterns
Complex (52.3%), bucket-handle (13.6%), horizontal (25.0%), vertical (4.5%), radial (4.5%).

Surgical Techniques
Hybrid repair (50.0%), all-inside (22.7%), inside-out (15.9%), outside-in (11.4%).

Additional Procedures
Saucerization performed in 75.0% of cases; bone marrow stimulation in 52.3%.

Results: Outcomes & Reoperation Rates

Effectiveness of Surgical Techniques

Reoperation Rate
5 of 44 patients (11.4%) required revision surgery.

Bone Marrow Stimulation
Lowered revision rates significantly (p=0.0019).

No Significant Differences
Age, sex, tear pattern, or technique did not impact revision rates.

Conclusion

Key Findings & Clinical Implications

Favorable Surgical Outcomes
Meniscus repair in pediatric patients showed good mid-term results.

Lower Reoperation Rates
Bone marrow stimulation may reduce revision surgery rates.

Future Considerations
Further studies needed to explore long-term outcomes and optimization strategies.

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