

Meniscal Allograft Transplants in Young Patients: Indications and Outcomes

Kaira Sponga*

Department of Surgery, University of Connecticut, Storrs, CT 06269, USA

Introduction

Meniscal injuries are common in athletes and active individuals, often leading to persistent knee pain and impaired joint function. While meniscal tears in adults can be treated with a variety of interventions, skeletally immature patients pose unique challenges. Traditional surgical approaches like meniscectomy may have detrimental long-term consequences, such as early onset osteoarthritis. In recent years, meniscal allograft transplantation has gained traction as a viable option for managing meniscal injuries in young patients. This systematic review delves into the indications and outcomes of meniscal allograft transplants in skeletally immature individuals. By analyzing the available literature, we aim to shed light on the appropriateness of this procedure, the factors that influence its success and its potential for mitigating the long-term consequences of meniscal injuries in the young population [1].

Description

Meniscal Allograft Transplantation (MAT) is a surgical procedure that involves the transplantation of a cadaveric meniscus into the knee of a patient with a missing or dysfunctional meniscus. While this procedure has traditionally been performed in adults with positive outcomes, its application in skeletally immature patients represents a relatively new frontier in orthopedic surgery [2]. The rationale for MAT in young patients is rooted in the understanding that preserving the meniscus is crucial for maintaining the health and function of the knee joint. Meniscal injuries in the young population can significantly impact knee stability and lead to premature joint degeneration if not addressed adequately. Meniscectomy, the standard treatment for meniscal injuries, may alleviate immediate symptoms but often results in long-term complications [3,4]. As a result, MAT has emerged as a potential solution to maintain joint integrity and mitigate the risk of early-onset osteoarthritis. This systematic review compiles and analyzes the existing body of literature on MAT in skeletally immature patients. It seeks to provide an in-depth evaluation of the indications for the procedure, the factors affecting its success and the outcomes in terms of symptom relief, function and the prevention of long-term joint degeneration [5].

Conclusion

Meniscal Allograft Transplantation (MAT) in skeletally immature patients represents a promising approach to address meniscal injuries while potentially averting long-term complications associated with meniscectomy. The systematic review of available literature suggests that MAT can provide symptom relief, restore knee function and potentially prevent or delay the onset

of osteoarthritis in this young patient population. The selection of appropriate candidates and careful consideration of various factors, including age, growth plate status and the extent of meniscal damage, are paramount to the success of MAT in skeletally immature patients. Early intervention and meticulous surgical techniques further contribute to positive outcomes. While MAT shows significant promise, further research is necessary to establish standardized protocols, evaluate long-term results and refine patient selection criteria. In the on-going quest to optimize the management of meniscal injuries in young individuals, MAT emerges as a beacon of hope, potentially offering them a brighter and healthier future for their knees.

Acknowledgement

None.

Conflict of Interest

There are no conflicts of interest by author.

References

1. Smith, Haley E., Madeline M. Lyons and Neeraj M. Patel. "Epidemiology of meniscal allograft transplantation at children's hospitals in the United States." *Orthop J Sports Med* 9 (2021): 23259671211034877.
2. Turati, Marco, Linda Boerci, Massimiliano Piatti and Nicolò Zanchi, et al. "Updates on etiopathogenesis of musculoskeletal injuries in adolescent athletes." *Minerva Pediatr* 75 (2023): 133-135.
3. Kopf, Sebastian, Philippe Beaufrils, Michael T. Hirschmann and Niccolò Rotigliano, et al. "Management of traumatic meniscus tears: The 2019 ESSKA meniscus consensus." *Knee Surg Sports Traumatol Arthrosc* 28 (2020): 1177-1194.
4. Wang, Sung Il. "Meniscal allograft transplantation for symptomatic knee after meniscectomy of torn discoid medial meniscus: Report of three cases." *Acta Orthop Traumatol Turc* 52 (2018): 70-74.
5. Gottliebsen, Martin and Marco Turati. "The paediatric knee: Traumatic injuries." *J Child's Orthop* 17 (2023): 3-3.

How to cite this article: Sponga, Kaira. "Meniscal Allograft Transplants in Young Patients: Indications and Outcomes." *J Transplant Technol Res* 14 (2024): 268.

*Address for Correspondence: Kaira Sponga, Department of Surgery, University of Connecticut, Storrs, CT 06269, USA, E-mail: ksponga@gmail.com

Copyright: © 2024 Sponga K. This is an open-access article distributed under the terms of the creative commons attribution license which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.

Received: 04 June, 2024, Manuscript No. jitr-24-117566; **Editor Assigned:** 06 June, 2024, PreQC No. P-117566; **Reviewed:** 18 June, 2024, QC No. Q-117566; **Revised:** 24 June, 2023, Manuscript No. R-117566; **Published:** 30 June 2024, DOI: 10.37421/2161-0991.2024.14.268