Improvement in Pain and Function after an average of 9.3 ± 1 Years

Significant improvement in knee function (Lysholm, Fig. 1) and pain VAS (Fig. 2) scores for all subgroups at a mean 9.3 years after AMIC® compared to pre-op.

2/26 (7.7%) patients required a total knee prosthesis at 9 and 10 years after the initial AMIC® procedure. Their scores were not included in the final mean scores.

The overall mean Lysholm and VAS scores improved significantly from pre-op to 2 years post-op. From 2 to 9 years, no significant differences in the mean scores were observed (Fig. 1 & 2, orange line).

Subgroup analysis revealed significant improvement in Lysholm and pain VAS at 2 years for the cP- and ocF-group compared to pre-op, however not for the cF-group. While the improvement remained stable up to 9 years for these 2 groups, the cF-group continued to improve from 2 to 9 years (Fig. 1 & 2, green line).
The bilayer collagen membrane is an established product for cartilage therapies with 20 years of clinical use. AMIC® Chondro-Gide®, a technique that combines bone marrow stimulation with the use of a collagen membrane, has been used for over 15 years. Based on pre-clinical and clinical evidence, AMIC® was included in the treatment recommendations for cartilage lesions of the talus, knee, and hip by the respective committees of the German Society for Orthopaedics and Trauma (DGOU).

Recently, the intended use of Chondro-Gide® was extended to augment meniscal repair by wrapping the membrane around the sutured meniscus. The corresponding meniscus wrapping technique is registered as AMMR™.

This literature highlight addresses important aspects of the evidence for the use of Chondro-Gide®.

Conclusions

- First study investigating long-term outcome after an AMIC® procedure for medium-sized cartilage lesions in the knee.
- Pain and function scores significantly improved after AMIC® combined with a concomitant realignment procedure (if indicated per radiologic assessment) and remained stable up to 10 years after surgery.
- Limitations of the study to be considered: a) heterogeneous patient population with respect to localization and cause of the underlying lesion, b) concomitant procedures performed during AMIC® may confound the results, and c) retrospective design of the single-center study is a known methodological weakness. Despite these limitations, the reported results are favorable, as there was a low revision rate of 7% at 9 years.
- Younger patients may especially benefit from a procedure that can delay and potentially prevent the need for an early arthroplasty.
- The study emphasizes the importance of a combined strategy with cartilage repair and alignment correction (where indicated) to achieve a durable, long-lasting benefit for the patients.

For details of the study refer to the original article: