

Efficacy of Autologous Micrografting Technology in Managing Osteoarthritis Pain:

A PILOT STUDY

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INTRODUCTION & OBJECTIVES

Osteoarthritis is a highly prevalent degenerative joint disease that causes pain, stiffness, and functional limitation, often reducing quality of life.

Conventional therapies may provide only partial or temporary relief, which has driven interest in regenerative and minimally invasive approaches such as **autologous micrografts**.

Objective: to evaluate whether **Rigenera®** cartilage micrografts could reduce pain and improve knee function in patients with osteoarthritic symptoms.

METHODS

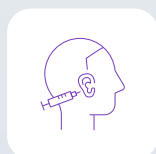


10 patients

Mean Age: 55 Years Old

Condition: Grade 2-4 of OA in the Kellgren-Lawrence scale

Autologous micrografts were obtained from retroauricular cartilage biopsies, mechanically processed with **Rigenera® technology**, and injected intra-articularly into the affected knee.



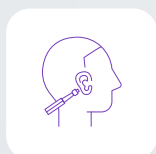
STEP 1

Anaesthesia with Lidocaine 2%



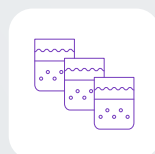
STEP 2

Anterior and posterior hydrodissection with Lidocaine 2%



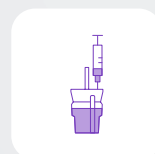
STEP 3

Biopsy extraction



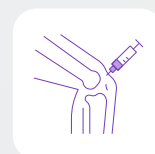
STEP 4

Collect cartilage biopsy of 2.5mm



STEP 5

Mechanical disaggregation for 6 minutes



STEP 6

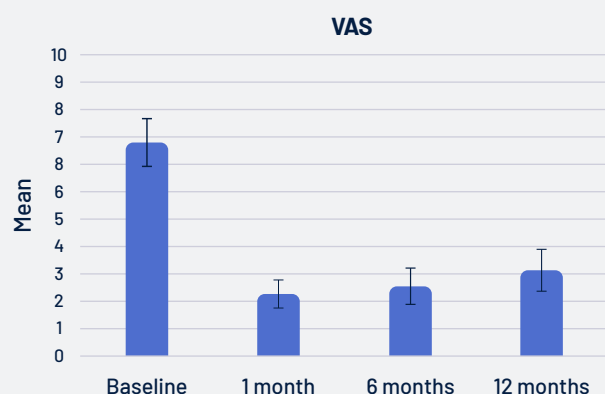
Intra-articular injection of micrograft

- Assessed at **baseline and at 1, 6, and 12 months** using VAS, KOOS, and WOMAC
- Adverse events and donor-site healing were monitored.

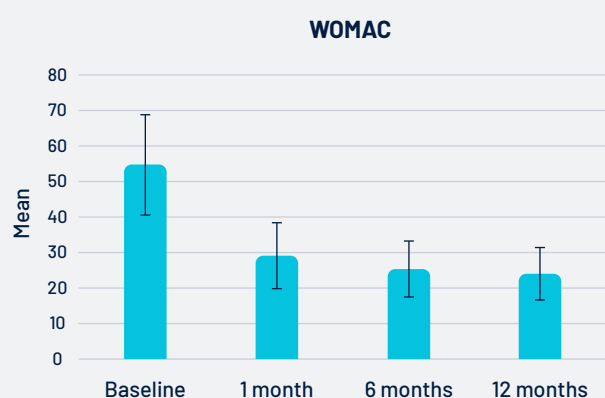


You can find all the information related to this poster in the following article:

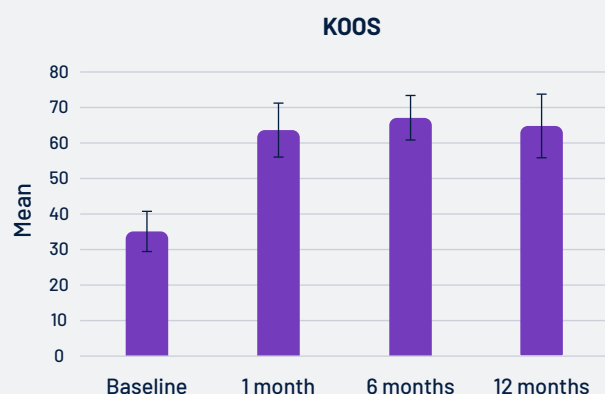
RESULTS

**Decrease in
VAS pain**

Mean **VAS pain** score decreased from 8.3 ± 0.94 at baseline to 2.4 ± 0.51 at 1 month, remaining low at 6 months (2.7 ± 0.67) and 12 months (3.3 ± 0.82).

**Decrease in WOMAC
symptoms**

WOMAC total score decreased from 54.8 ± 14.36 at baseline to 29.6 ± 9.24 at 1 month, 25.5 ± 8.31 at 6 months, and 24.4 ± 7.2 at 12 months.

**Increase in KOOS
function score**

KOOS total score improved from 35 ± 5.18 to 63.3 ± 7.27 at 1 month, 66.7 ± 6 at 6 months, and remained stable at 12 months.

DISCUSSION & CONCLUSIONS

Autologous micrografting with **Rigenera®** may provide **meaningful and durable improvement in pain and knee function** in patients with moderate knee osteoarthritis.

The **absence of adverse events** and the rapid healing of the donor site support the procedure's safety.

You can find all the information related to this poster in the following article:

