



الجامعة الإسلامية العالمية ماليزيا
INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA
بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Treatment of Osteoarthritis using Synvisc in New Zealand White Rabbit

¹Abdul Hamid, Zahana; ¹Zulkifly, Ahmad Hafiz; ¹Mohamad Amri, Nur Fathonah; ²Abd Rahim, Nour El Huda; ¹Hassan, Habibah; ¹Ibrahim, Mohd Zulfadzli; ¹Mohd Jan, Nurul Hafiza; ¹Abu Hassan, Salmah Anim; ¹Mohd Zohari, Sarah Haryati; ¹Zainal Abdullah, Muhamad Ezham; ¹Abdul Jalil, Rosnani; ³Che Seman, Che Zarida

¹Department of Orthopaedics, Traumatology and Rehabilitation, Kulliyah of Medicine, International Islamic University Malaysia.

²Department of Basic Medical Sciences, Kulliyah of Medicine, International Islamic University Malaysia.

³Kulliyah of Science, International Islamic University Malaysia.

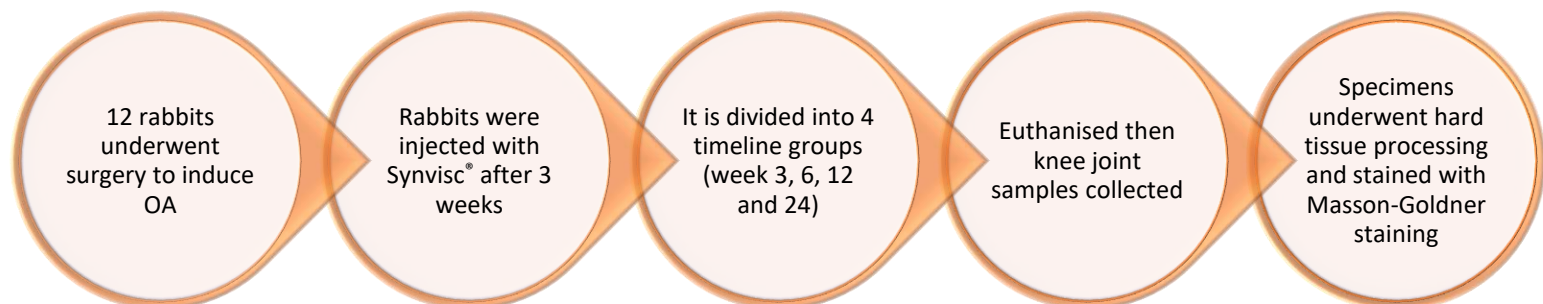
INTRODUCTION

Osteoarthritis (OA) is a degenerative joint disease affecting millions worldwide. Synvisc[®] is used as viscosupplement injection treatment for OA in humans

OBJECTIVES

This study will investigate the histological changes of OA in rabbits treated with Synvisc[®]

METHODOLOGY



RESULTS

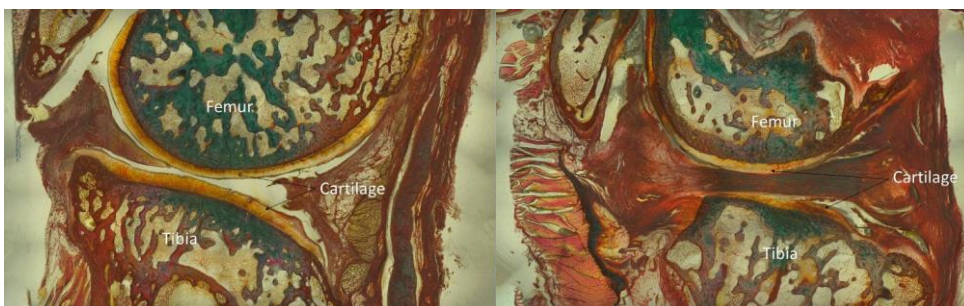


Figure 1: Treated knee with Synvisc at 6 weeks

Figure 2: Treated knee with Synvisc at 12 weeks

The Synvisc[®]-treated OA knees at 6 weeks (Figure 1) and at 12 weeks (Figure 2) exhibited no inflammation. Improvement of cartilage thickness was noted. The cartilage is thicker in 12 weeks group compared to 6 weeks group.

DISCUSSION

Rabbits treated with Synvisc[®] showed cartilage thickness improvement and was observed at 6 and 12 weeks after treatment. Specifically, the rabbits with OA treated with Synvisc[®] improved with cartilage thickness.

CONCLUSION

Synvisc[®] treatment showed histological improvements of OA in rabbits.

REFERENCES

1. Boissier P, Mainil-Varlet P, Mautone GR(2021). Increasing Concentration of Sinovial: Effect on Cartilage Protection in a Rabbit ACLT Model. *Cartilage*; 13 (2_suppl) :185S-195S.
2. ISO/IEC 17025:2017 Testing Method, Orthopaedics Research Laboratory, IIUM