

Summary

Short-term results of this preliminary study show that meniscal chondrocytes can survive cryopreservation and transplantation. Technically, the meniscus can be transplanted in man. The allograft attaches firmly to the knee capsule, and is followed by revascularisation of the graft. Revascularisation is necessary for the vitality of the meniscal chondrocytes in the resting phase, that is to start mitosis and synthesis of extracellular matrix. Although meniscal transplantation is still experimental, it can be an alternative method of treatment of postmeniscectomy osteoarthritis. The results of meniscal transplantation are better in patients with normal alignment of the knee. Therefore malalignment should be corrected before or at the time of meniscal transplantation.

Further studies and longer follow-up are necessary to show whether meniscal transplantation is durable and prevent progressive degeneration of articular cartilage in the long term.