CLINICAL STUDY ON REPAIRING CARTILAGE DEFECT WITH CHONDROCYTE PRECURSORS (CPs)


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The current study introduces a highly potential technique to produce chondrocyte precursors (CPs) by using chondrogenic medium to induce the bone marrow mesenchymal cells (BMSCs), and was studied on repairing chondral defects and OA at the weight bearing site of the medial femoral condyle. The CPs were implanted onto grade IV defects in the study group (ten patients), showing good function after 1-year monitoring. The control group (five patients) had traditional microfracture therapy, showing less improvement. The results were obtained by doing IKDC, conventional X-ray examination, Knee arthroscopy, biopsy and MRI. This clinical study results provide insights for the safety and efficacy of CPs and the CPs will have better chance to become hyaline cartilage then MSCs will.