

患者まで届いている

再生医療

特発性大腿骨頭壊死症に対する
bFGF 含有ゼラチンハイドロゲルを
用いた低侵襲再生医療

Regenerative therapy using controlled release of basic fibroblast growth factor for patients with pre-collapse osteonecrosis of the femoral head

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Summary

For many years, minimally invasive joint-preserving regenerative therapy has been desired for the early stages of osteonecrosis of the femoral head (ONFH). Ten patients with femoral heads up to precollapse stage 2 underwent a single local administration of 800µg rhFGF-2-impregnated gelatin hydrogel. Primary outcomes included adverse events. Secondary outcomes included changes in three clinical scores, radiological changes. All Adverse events were recovered without problem. The surgery was performed with a minimally invasive technique, and walking was allowed from the day after surgery. Mean clinical scores improved significantly after one year compared with before surgery. There was only one case of femoral head collapse, and it had the greatest necrosis volume. The other nine cases did not involve ONFH stage progression, and collapse was prevented. Computed tomography confirmed bone regeneration in the femoral heads. Clinical application of rhFGF-2-impregnated gelatin hydrogel for patients with precollapse stage of ONFH was feasible and safe.