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**Title:** The Nd:YAG laser in the treatment of the osteocartilaginous lesions of the knee

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**Place:** Rizzoli Institute for Orthopaedics, Bologna.

**Purpose:** evaluation of the effect of the treatment with Nd:YAG laser in the osteocartilaginous lesions of the knee.

**Method:** 7 patients waiting for autologous transplantation of chondrocytes for osteo-chondral lesions of the femoral condyles have been considered. 5 patients have been treated with Nd:YAG laser in between the two arthroscopic procedures, while 2 patients have not been treated. Hystologic and immunohystochemical analyses have been performed on bioptic specimens.

**Results:** In comparison with control, the Nd:YAG laser treatment induced increase of growth factors in synovial fluids, decrease of inflammation factors and re-growth of jaline cartilage in a different extent depending on the age of the patients and the position of the lesions.

**Conclusion:** The HILTherapy has anti-inflammatory and biostimulating effects, which have been demonstrated with histological and immunohystochemical tests, and induce the re-growth of cartilage.