

## Cartilage Repair Approach and Treatment Characteristics in the Knee Joint: A Turkey Survey

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**Objectives:** To determine the approaches of Turkish Orthopaedic and Traumatology specialists towards the treatment of isolated focal cartilage lesions in the knee joint.

**Methods:** An online questionnaire consisting of 21 questions was prepared and sent to a sample group comprising members of the Turkish Orthopaedics and Traumatology Association (TOTBID) and the Turkish Sports Injuries Arthroscopy and Knee Surgery Association (TUSYAD). The responses of 129 members were evaluated.

**Results:** Of the total respondents to the questionnaire, approximately 1/3 worked in a private hospital, 1/3 in a university, 15% in a state hospital and 13% in a training and research hospital. An arthroscopic approach was applied fewer than 50 times per year by 20% of respondents, 50-100 times by 40%, 100-200 times by 24% and more than 200 times by 17%. The upper age limit for surgical repair of cartilage was reported as 50 years by 52% and 40 years by 25%. Similarly, the body mass index (BMI) upper limit was stated as below 30kg/m<sup>2</sup> by 58% and below 25kg/m<sup>2</sup> by 22%. The best results were thought to come from femoral condyle lesions by 85% of the surgeons. In patients with high activity expectations, the most frequently applied methods were 60% microfracture and 40% mosaicplasty. For lesions between 2.5 and 4cm<sup>2</sup> in size, mosaicplasty was applied most often, followed by matrix-supported chondrocyte implantation. In lesions larger than 4cm<sup>2</sup>, MACI was the most common procedure. Although 70% of surgeons had never applied the matrix-supported microfracture method, 30% considered that it could be a choice for individuals with a high activity level. A return to sports following cartilage repair was accepted as 6 months for microfracture (86%), 9 months for mosaicplasty (63%), and 12 months for matrix-supported autologous chondrocyte implantation (73%).

**Conclusion:** As there was a similar distribution of experienced and less experienced surgeons among the respondents, the results obtained from the questionnaire are significant in terms of reflecting the general perspective in the country. That mosaicplasty was the first choice for lesions over 2.5cm<sup>2</sup> in individuals with a high activity level may be related to poor long-term results of microfracture in large defects. Although it is not widely used in our country and social security repayments are limited, it was noteworthy that for defects over 4cm<sup>2</sup>, the first choice was second generation autologous chondrocyte implantation. Similarly, it is significant that a third of the surgeons stated matrix-supported microfracture as a choice for high activity patients, although it is not often applied. Decision makers in institutions making repayments should take into account that large defects require methods which are relatively more expensive and need high technology. The results obtained here of an upper age limit of 50 years and BMI below 30kg/m<sup>2</sup> for cartilage repair are consistent with literature. A return to sports is planned as 6 months at the earliest and a longer period after more complex surgery.

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