Intraarticular treatments for osteoarthritis: new perspectives. Chevalier X.  

Abstract
To date, no targeted treatments for osteoarthritis have been developed. Therefore the challenge for the next years is to find a treatment that may slow down the progression of the disease. Osteoarthritis of the weight-bearing joints, such as knee OA, is more a local mechanical driven disease than a generalized one. To reach a non-vascularised tissue such as the cartilage, local intra-articular administration of drugs should be considered. The purpose of this review is to evaluate the advantages of local intra-articular drug administration compared with a systemic one in patients with osteoarthritis of weight-bearing joints. New perspectives of such strategy are reviewed, including anti-cytokine therapy, gene therapy, delivery of growth factors, stem cells therapy and new lubricant agents such as lubricin. The main goal in the future will be to increase the residence time of the drug in the joint while improving its diffusion within the target tissues. One key question will be how to better define the patients likely to benefit by such an approach and when the treatment is most likely to work. Most importantly, the treatment strategy must be selected according to the pattern in an individual patient. Finally, with all intra-articular treatments, the risk/benefit ratio must be carefully evaluated.