Abstract

Introduction: The goal of this study was to compare the two surgical procedures (arthroscopic versus open surgery) in the treatment of Kienböck disease (KD) and all therapeutic options depending on the stage of disease.

Materials and Methods: Various electronic databases were used to search for articles on this topic. This review aims to evaluate and summarize the various surgical interventions and their outcomes in KD.

Results: Many treatments for KD are described and various surgical options are available based on the stage of disease. The surgical procedure including radial shortening osteotomy, capitate shortening osteotomy, total wrist arthrodesis, proximal row carpectomy, scapho-trapezio-trapezoid arthrodesis, vascularized bone grafting and excisional arthroplasty are the most commonly used. In the study there were included a number of 190 patients in different stages (Lichtman) of KD. They have undergone to surgical interventions (arthroscopic and open surgery) by following the same things in each group; decreasing pain, increasing range of motion (ROM) and grip strength, also earlier return to unrestricted daily activities. Patients were followed-up for a long period (between 1 year and 10 years postoperative).

Conclusions:
1. For each stage of KD, there are several therapeutic options.
2. Preoperative arthroscopic evaluation of cartilage damage can inform treatment decisions. Arthroscopic surgery resulted in shorter operating time, shorter hospital stay and earlier return to unrestricted daily activities.