

Lateral Wedges for Medial Osteoarthritis of the Knee

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An extremely stubborn condition to treat is osteoarthritis of the knee. While joint play manipulation is an excellent method for restoring the lost "give" in the joint, as soon as weight bearing stress is assumed the patient's symptoms eventually reoccur. Often the degeneration of the knee occurs either in the medial or lateral compartment of the joint. Medial degeneration is often seen with a varus (bowlegged) knee resulting in a lateral thrust of the knee during gait.

An interesting study was performed which is the basis of this article. According to the authors,¹ 121 knees with medial osteoarthritis were treated for pain with lateral heel and sole wedges. According to a hospital for special surgery pain score, 38 percent of the patients had a pain score comparable to patients who had excellent results from total knee arthroplasty, and 50 percent of the patients had scores corresponding to good results from total knee arthroplasty. Patients with milder osteoarthritis had the most pain relief. They stated that even patients with complete loss of joint space and bony erosion showed some improvement.

The wedges used had a one-quarter inch lateral heel elevation and a three-sixteeth inch lateral sole elevation. The wedge was made to be placed inside the shoe so they could be removed if there was no pain relief. The follow-up period on their patients was for one year. They stated that 38 percent of their patients said that they had little or no pain in their knees almost as soon as they wore the wedges. Only two other studies on the use of lateral wedges were previously published.^{2,3}

Degenerative joint disease of the knee can be examined in the weight-bearing position by roentgenogram.⁴ The patient stands with the knees in 45 degrees of flexion with the beam centered at the level of the inferior pole of the patella and directed 10 degrees caudad. The beam is directed posteroanterior. Normal cartilage space is about four mm or more on the medial side and five mm or more on the lateral side. Narrowing of the medial space to one to two mm would indicate major degeneration. A functional finding in osteoarthritis of the knee is the capsular pattern of more limitation of passive flexion than passive extension.

References

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OCTOBER 1993