

Kienbock's Disease: Staging and Treatments

Physical Therapy in Portland for Wrist

Suffering from a sore wrist? This article describes the rare condition of Kienbocks disease, where the blood supply to the lunate bone is cut off, and the person presents with symptoms which mimic a sprained wrist. Staging of the disease is done by radiographs, and a patient of Bridgetown Physical Therapy & Training Studio that is diagnosed with Kienbocks disease would be interested in the information compiled in this review article.

Kienbock's disease is a disease that affects the small bones in the hand, near the wrist. For reasons that doctors and researchers don't yet understand, the blood supply to the bone, the lunate is cut off. Without that blood supply, the cells in the bones die. At first, the person who has Kienbock's disease may think he or she has sprained the wrist; it is only after it doesn't get better when they seek help and a diagnosis. The authors of this article reviewed the case of a 30-year-old man who experienced wrist pain for three months, but did not do anything to the wrist to cause it.

Upon reviewing the x-rays of the man's wrist, the authors saw sclerosis (hardening or thickening) of the lunate bone and a possible fracture, but no other obvious problems. To determine if he had Kienbock's disease, they had to review the classifications, staging, and if treatment was necessary.

Staging Kienbock's disease means identifying how far it has developed. The classification most often used is the Lichtman classification. Stage 1 of the disease doesn't show any damage on x-ray or scans, while stage 2 shows some sclerosis and maybe a fracture line, as with the man identified above. Stage 3 is divided into 3A and 3B. Stage 3A has no collapse of the carpal tunnel, the tunnel through which the nerves run from the arm to the hand, while stage 3B does have carpal collapse. Finally, stage 4 involves the collapse along with arthritis.

Treating the disease depends usually on these stages and begins with non-surgical treatments for stage 1 through to 3A. Splinting and/or casting may be all that is needed in stage 1, while medications may be introduced for stages 2 and 3A. Stages 3B and 4 usually need surgery. Many studies have been done to see which treatment is best. One study, by Delaere and colleagues, looked at 65 patients who were treated over a five-year period. Twenty-two did not have surgery and the rest were treated with some sort of surgery. The researchers found that those who did have surgery ended up with more change in social activities and a lesser range of motion in the affected wrist. While this may show that surgery may not be the best options, the authors of this article point out that in order to have surgery, the patients must have had a more advanced case of Kienbock's disease. Other studies had similar findings but also had the same criticism. There is also more than one type of surgery that can be done for Kienbock's disease. Some involve grafting bone or pinning the bones, while others shorten the affected bone, to name a few.

Obviously, there is a need for more research into this uncommon disease.

Returning to the patient described at the beginning, one author wrote that he does not treat asymptomatic disease, or Kienbock's disease that is not showing any symptoms, but only those who are staged at stage 2 or higher. These, if they come in within six weeks, may get a splint or cast. If the symptoms don't improve, surgery involving shortening the bone may be recommended.

Reference: Nader Paksima, DO, MPH and Angelo Canedo, BA. Kienbock's Disease. In Journal of Hand

Surgery. Dec. 2009. Vol. 34. No. 10. Pp. 1886 -1889.