

An Unusual Cause of Wrist Pain; Kienbock's Disease

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Case Report

Patient: A 57-year-old female

Chief complaint: Pain in both wrists

Physical examination: Slightly swollen wrists noted.

Past medical history: She had mixed connective tissue disease (MCTD) with pulmonary hypertension.

Laboratory findings: Erythrocyte sedimentation rate (ESR) of 71 mm/h, CRP of 1.1 mg/dL, white blood cell (WBC) count of 5,700/mL, Hb of 11.8 g/dL, and platelet of 125×10^3 /mL.

Radiologic findings: Plain X-ray revealed deformity of the lunate on both hands (Figure 1).

Discussion

We present an unusual case of Kienbock's disease with involvement of both lunates. Avascular necrosis of the lunate bone, also known as Kienbock's disease, was first described by Robert Kienbock in 1910. This is a condition that results

in osteonecrosis and collapse of the lunate, often causing chronic pain and dysfunction. The etiology is still undefined after 100 years. Mechanical, anatomic, vascular, traumatic, and systemic factors have been considered. Kienbock's disease is basically thought to be an avascular process of the lunate (1,2).

Physical examination shows localized dorsal wrist swelling and tenderness about the lunate, decreased range of motion of the wrist joint, and loss of grip strength, but forearm rotation is typically preserved. Plain X-ray is useful in the diagnosis of Kienbock's disease and is evaluated for sclerosis, cystic changes, fragmentation, collapse, and linear fracture of the lunate (2).

The clinical and radiological classification described by Lichtman in 1977 is now commonly used. This staging is important for evaluation and treatment (3).

In the present case there was no history of wrist trauma, and anatomical deformity was not found. The disease is rarely



Figure 1. Both lunate bones are collapsed.

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bilateral. The reported incidence is 3~7%. Only three patients with corticosteroid treatment, of which two had SLE, was described (4). The patient first had it on right hand, followed later by the left. The patient in the present case was treated with corticosteroid. It remains unknown whether MCTD plays an important role in the development of Kienbock's disease, but there may be a correlation between the use of long-term steroids and the disease.

We describe a case of Kienbock's disease, which is uncommon, but not rare in cases of wrist pain. Physicians should be aware that this disease is one of the causes of wrist pain,

and should acquire the habit of observing the lunate.

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