Hypothenar Hammer Syndrome



What is hypothenar hammer syndrome?

Hypothenar hammer syndrome is a condition of the hand in which the blood flow to the fingers is reduced. Hypothenar refers to the group of muscles that control the movement of the little finger. Some of these muscles make up the fleshy edge of the palm (hypothenar eminence). It occurs when workers repeatedly use the palm of the hand (especially the hypothenar eminence) as a hammer to grind, push, and twist hard objects. These activities can damage certain blood vessels of the hand especially the ulnar artery. This artery goes through the hypothenar area of the palm and supplies blood to the fingers. Damage to the ulnar artery results in a reduction of blood flow to the fingers. Sometimes a single significant episode can cause hypothenar hammer syndrome.

Hypothenar hammer syndrome typically occurs in men with an average age of 40 years. Workers at risk include auto mechanics, metal workers, lathe operators, miners, machinists, butchers, bakers, carpenters, and bricklayers. Workers who use vibrating tools are also at risk. Hypothenar hammer syndrome has also resulted from sports activities such as karate, baseball, mountain biking, golf, tennis, hockey, handball, volleyball, badminton, break-dancing and weight lifting.

What are the symptoms of hypothenar hammer syndrome?

Symptoms of hypothenar hammer syndrome are a pain over hypothenar eminence and ring finger, pins and needles (paresthesia), loss of sensation, and difficulty holding heavy objects in the affected hand. The fingers become sensitive to cold and they change colour.

How is hypothenar hammer syndrome recognized?

The diagnosis of hypothenar hammer syndrome is based on symptoms, medical history and job history. The diagnosis is confirmed with tests showing the obstruction of the blood vessels.

How is hypothenar hammer syndrome treated?

The treatment of hypothenar hammer syndrome begins by avoiding those activities that caused the syndrome. Other treatments may include smoking cessation

(smoking affects blood circulation), use of padded protective gloves, and avoiding the cold. Certain drugs will help to restore the blood flow. For some cases surgery may be necessary.

How can we prevent hypothenar hammer syndrome?

Be aware of the causes and symptoms of this syndrome. Prevention should focus on improving work practices and avoid using the palm of the hand as a hammer to pound, push or twist hard objects. While working, use padded gloves to avoid the excessive trauma to the heel of the hand.

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