

Wernicke-Korsakoff Syndrome

Wernicke-Korsakoff syndrome is a common acute neuropsychological disorder caused by thiamine deficiency. It is commonly seen in alcoholics due to nutrient depletion. Wernicke encephalopathy is manifested by a clinical triad of encephalopathy with confusion, ophthalmoplegia, and gait ataxia. Korsakoff syndrome is characterized by marked deficits in anterograde and retrograde memory, personality changes, and confabulation. Memory impairment correlates with damage to the medial dorsal nucleus of the thalamus and the mamillary bodies. Patients with Korsakoff syndrome rarely recover. When treating alcoholics, thiamine is commonly given with glucose therapy to prevent development of Wernicke-Korsakoff syndrome.



PLAY PICMONIC

Thiamine deficiency

Thigh-man Tied-up

Decreased thiamine can cause Wernicke-Korsakoff syndrome as well as Beriberi.

Confusion

Confucius

Patients with Wernicke encephalopathy often present with confusion and altered mental status.

Ophthalmoplegia

Ophthalmoscope-crazy-eye

Refers to paralysis of one or more of the extraocular muscles that coordinate eye movement. Lateral rectus palsy is especially common in Wernicke's encephalopathy.

Ataxia

A-taxi

A lack of muscle coordination secondary to cerebellar dysfunction.

Korsakoff

Corset-cop

Korsakoff syndrome is a late manifestation of thiamine deficiency, characterized by marked deficits in anterograde and retrograde memory, personality changes, and confabulation.

Confabulation

Con-fabric-tongue

A memory disturbance characterized by invented memories that are thought to be true. Confabulation is often called "honest lying" because people usually have no intent to deceive and is unaware that their information is false.

Personality Changes

Three-faced-mask

People with Korsakoff psychosis often are described to have personality changes, including apathy.

Memory loss

'Who am I' thought bubble

Patients with Wernicke-Korsakoff can suffer from both anterograde and retrograde memory loss.

Alcoholics

Alcohol bottle

Excessive alcohol consumption is a common cause of thiamine deficiency leading to Wernicke-Korsakoff syndrome.

Damage to medial dorsal nucleus

[Damaged median with doors and Nuclear-signs](#)

Part of the thalamus thought to play a large part in the memory pathway. The medial dorsal nucleus is associated with Korsakoff syndrome.

Damage to mammillary bodies

[Damaged pole with structures that resemble Mammillary Bodies](#)

Structure important in the memory pathway that is commonly damaged in Wernicke-Korsakoff syndrome.