



A Case of Wernicke Korsakoff Syndrome at Portiuncula University Hospital

Kiren Govender, Consultant in Emergency Medicine, Portiuncula University Hospital, Galway, IRELAND

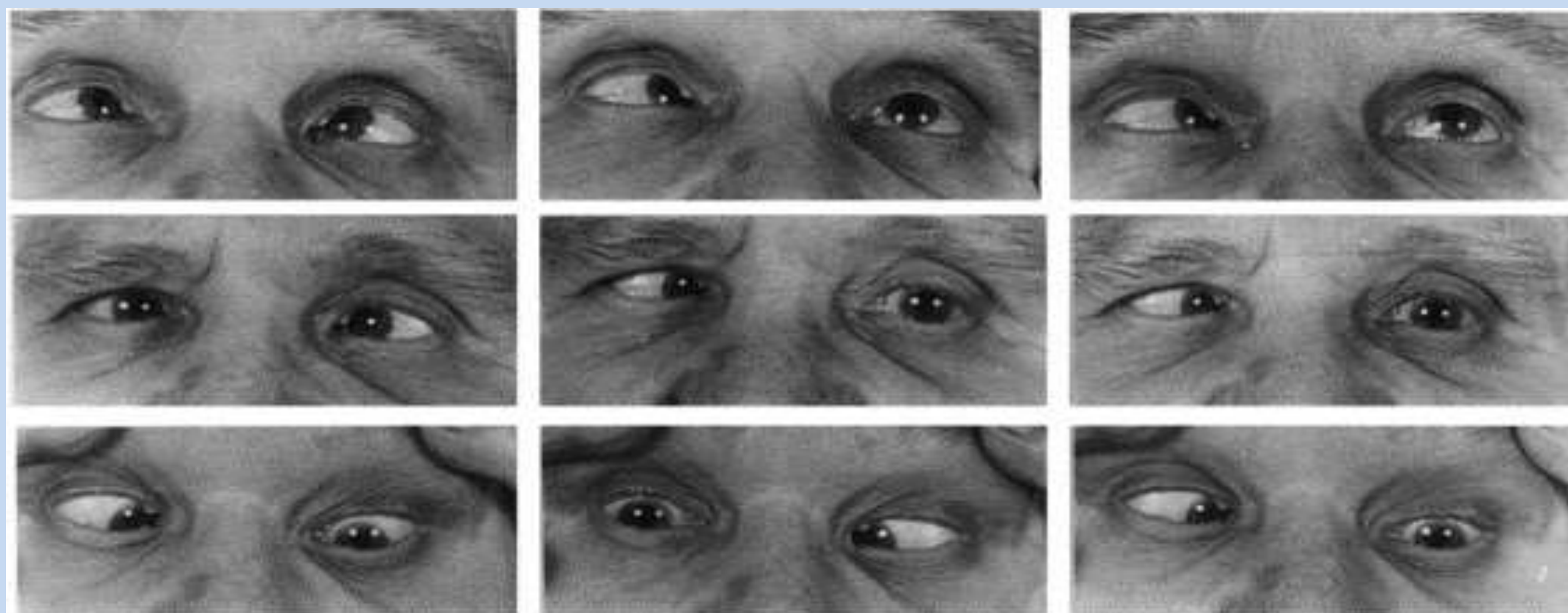
David Samouil Charmduch Bertlla, Emergency Department

Yasir Razaq , Medical Registrar, Medical Department



Introduction:

Assessing patients with acute confusion in the Emergency Department (ED) can be daunting especially when they are aggressive, under police custody and noncompliant with injuries. It is even more taxing when there is a language barrier with limited collateral history. This scenario requires a judicious weighing of all available information and support of allied staff. Wernicke-Korsakoff Syndrome (WKS) is a treatable and highly underdiagnosed disease with high mortality rates that should be considered in individuals who misuse alcohol. The etiology is an absolute deficiency of thiamine rather than a direct toxic effect of alcohol. The triad of Wernicke's encephalopathy global confusional state, ophthalmoplegia and nystagmus with ataxia is rare and even more so when combined with Korsakoff's psychosis triad of memory loss, learning deficits and confabulation. Only 20% of cases are diagnosed properly.



Case Presentation:

A 37year old male presented to the ED in police custody with multiple lacerations after breaking through a shop window. He could not give a coherent history and he spoke Polish and very little English. He was aggressive, noncompliant and required support to an assessment area with adequate room for himself; staff and the hospital security staff. A cleaning staff member who was fluent in Polish heard him and said that he was talking to God and someone else next to him. His sister arrived shortly after presentation and gave a history that he had been drinking heavily since the age of 16 and drank about 4 to 6 cans of beer and vodka daily. He had arrived in Ireland 4 years earlier and worked for a car wash. She confirmed that he was talking incongruent stories that this was the first time she had witnessed him with such behaviour. The patient had also fallen a few days earlier and injured his left foot and he had been unwell since.

The ATLS protocol was followed with pressure dressings being applied to all the lacerations. Cervical spine immobilisation was considered but not recommended in view of his presentation and the likelihood of him becoming more noncompliant. His speech was incoherent and he had memory loss. He had a left lateral strabismus and noticeable bilateral horizontal nystagmus. He also had a tremor and had wide spaced ataxic gait.

He was uncooperative and spoke persistently. He calmed down a little when the hospital security and his sister arrived. At this point he allowed an examination and an intravenous cannulation. In this context all routine bloods tests were drawn including a venous blood gas and blood cultures and toxicology test. He was given intravenous 10mg of diazepam which made him more compliant and calm. He was also given 5mg of Haloperidol after a 12L ECG was normal with no prolonged QT. His vital signs were 126/84 mmHg, Pulse of 118 bpm, Respiratory Rate of 20, Temperature of 37 Celsius and Blood Glucose of 5mmol/l.

Once complaint and reassured a CT brain and CT cervical spine were obtained and he had plain film x-rays of his chest and arms. A urine sample was also obtained for testing. All radiological tests were reported normal and his bloods tests showed normal renal functions; elevated CK of 20000; WBC of 11 Plts. of 163 Hb 10.5g/dl and CRP of 100. A blood alcohol level was 0 and the toxicology screen was negative.. He was subsequently started on fluids, antibiotics and Pabrinex (a combination of B and C vitamins). Once compliant he was admitted by the medical team and an LP was done to exclude an infective cause and this was followed up with a MRI brain. These results were normal.



Management:

His treatment plan followed acute trauma protocol with the context of an acute psychotic patient. He initially calmed a little with his sister's arrival and was given IV diazepam to sedate him further. He was further given IV Haloperidol for the psychotic symptoms. This combination allowed a thorough clinical examination and assessment. The ATLS approach to trauma was followed and pending investigations he was also immediately given IV antibiotics and an antiviral for a possible infective cause. These were stopped once normal results returned. Diazepam regimen for detoxification, rehydration and high doses of thiamine were continued. The complex lacerations and Lis Franc injuries required specialist referrals. His condition improved remarkably 3 days after his admission and treatment with thiamine. The complete his assessment he also had a psychiatry review.



Discussion and Conclusion:

This situation poses a huge risk to both the patient, the staff and other patients in an overcrowded ED. It is even more complex when both trauma and other cause is suspected. The immediate approach should always be in the best interests of the patient. Both safety of patient and staff are paramount. In the event of such a mixed scenario it would be best to sedate and assess the patient. It would always be best to approach the patient in a non-aggressive calm manner and to engage meaningfully with them. Calm relatives also help. Whilst security might be reassuring for the staff, it may be interpreted as threatening by the patient. With increased migration, language barriers are important to contend with, and an interpreter is an essential resource. The use of sedatives and antipsychotics should be judiciously considered and used in the clinical context. All primary investigations should be done immediately with the intent of finding the cause. This case highlights the situational awareness, medicolegal, ethical and clinical considerations that an ED doctor should be cognisant of in a case of WKS and other aggressive patients. The assessment was based on the approach to a confused trauma patient, which is multidisciplinary team approach which included the initial ED team, medical team and psychiatric teams.. His differential included head injury secondary to a fall, alcohol/drug intoxication, infection and WKS.

WKS is a rare but reversible and treatable condition which responds to timely intervention; rapid diagnosis and thiamine administration. This complex case underlines the need for good clinical history, examination and awareness of WKS in context.

References:

1. Gunthrie K. Behavioural Emergency Management. Life in the Fastlane September 2019
2. Rossi, J. Swan, M. & Isaacs, E. The Violent or Agitation Patient. Emergency Medicine Clinics North America. 28, 235-256. PMID: 16201954
3. Akhouri s, Newton EJ. Wernicke-Korsakoff Syndrome. StatPearls. StatPearls Publishing 2019 PMID: 28613480
3. Isenberg-Grzeda E, Kutner HE, Nicolson SE: Wernicke-Korsakoff-syndrome: under-recognised and undertreated. Psychosomatics. 2012 NOV-DEC,53(6):507-16 PMID 23157990

