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ERB'S AND KLUMPKE'S PALSIES





ERB'S AND KLUMPKE'S PALSIES

Erb's palsy results from neuronal damage to the upper C5 and C6 nerves. The clinical presentation includes partial or full paralysis of the arm and often accompanied by loss of sensation.

Klumpke's palsy causes paralysis of the forearm and hand muscles as a result of mechanical damage to the lower C8 and T1 nerves.



ERB'S AND KLUMPKE'S PALSY

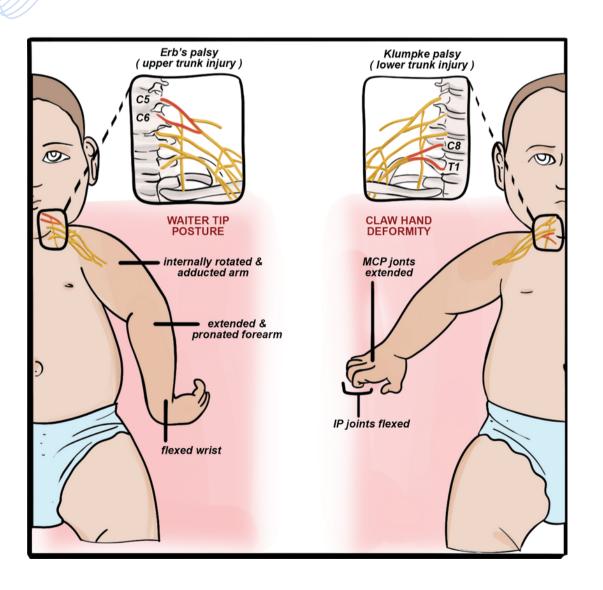
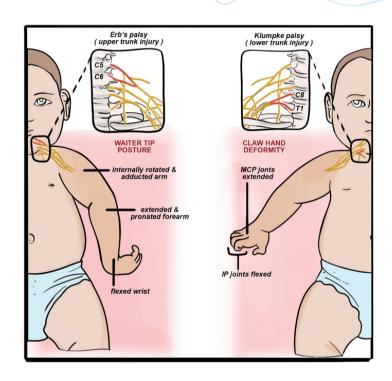




IMAGE DESCRIPTION



- A medical illustration depicting Erb's and Klumpke's Palsy, highlighting nerve pathways affected during birth trauma. Visualizes C5/C6 and C8/T1 injuries, portraying paralysis and hand positioning abnormalities.
- Birth trauma leads to C5 and C6 nerve damage, causing arm paralysis.
- Lower C8, T1 nerve injury results in forearm and hand paralysis, often "clawed" hand position.
- Obstetric brachial plexus palsy first described in 1752; Duchenne and Erb provided crucial pathogenic insights.
- Estimated 1-3 cases per 1000 live births; more common in males, right side affected.



ERB'S PALSY

- Characterized by undue separation of the head and shoulder during birth.
- Involves the upper plexus roots, specifically C5 and C6 nerves.
- Common causes include shoulder dystocia during delivery and motor vehicle accidents.
- Muscular Manifestations:
- Affected nerves result in weakness of the deltoid muscle.
- Loss of abduction capability in the upper limb.
- Infraspinatus involvement leads to a loss of lateral rotation.
- Biceps brachii impairment causes a deficit in flexion and supination.
- Policeman's tip position: Arm positioned along the outer aspect due to muscle weakness.
- Sensory loss may or may not be present in the affected area.
- All intrinsic hand muscles remain unaffected.
- Absence of claw hand deformity.
- Focus primarily on larger muscle groups in the upper limb.
- Horner syndrome is absent in Erb's Palsy cases. No notable autonomic dysfunction associated.



KLUMPKE'S PALSY

- Results from hyperabduction of the shoulder.
- Involves the lower plexus roots, specifically C8 and T1 nerves.
- Causes include difficult breech delivery, holding onto an object during a fall, and certain syndromes.
- Deltoid and supraspinatus show loss of abduction capability.
- Infraspinatus remains unaffected.
- Biceps brachii functioning, preserving flexion and supination.
- Porter's tip position: Arm positioned along the medial border of forearm and hand.
- Differentiated positioning compared to Erb's Palsy.
- Focus on the lower part of the limb.
- Involvement of all intrinsic muscles of the hand.
- Development of a claw hand deformity.
- Sensory loss may be present in the affected areas.
- Horner syndrome may be observed in Klumpke's Palsy cases.
- Potential for autonomic dysfunction associated with lower plexus root involvement.



MCQ

Question:

What is the primary cause of Erb's Palsy?

- A) Genetic inheritance
- B) Traumatic brachial plexus injury during birth
- C) Neuropathy
- D) Avulsion of nerves from the spinal cord

Answer: B) Traumatic brachial plexus injury during birth

