

Picture quiz in Neurology – Answers

Answer 1

1.1 Acute cord ischaemia.

The “snake-eyes” sign seen in the picture, also referred to as “owl-eyes” or “fried-eggs” sign, is a radiological finding which is seen as bilateral hyperintense symmetric, circular or ovoid foci on T2-weighted axial magnetic resonance imaging sequences involving the anterior horn cells of the spinal cord. This sign is described in association with several clinical conditions such as: anterior spinal artery ischemia, degenerative cervical myelopathy, Hirayama disease and amyotrophic lateral sclerosis. Considering that the neurological deficit in this man was acute the likely diagnosis is acute cord ischaemia.¹

Answer 2

2.1 Amyotrophic lateral sclerosis/ motor neuron disease

The “split hand sign” is a useful bedside clinical sign observed in amyotrophic lateral sclerosis.² There is selective weakness and atrophy of the intrinsic hand muscles, particularly the muscles of the thenar eminence and the first dorsal interosseous muscle. Flexor pollicis longus, the flexor digitorum profundus to the little finger, and the flexor digitorum superficialis to the index finger and middle finger and hypothenar muscles may be relatively spared or less affected.

Answer 3

3.1 Anterior interosseus nerve (AIN) syndrome on the right.

Paresis or paralysis of the flexor pollicis longus and the flexor digitorum profundus of the index finger is the hall mark of anterior interosseus nerve syndrome. The patient will not be able to make an “OK” sign with the said fingers as shown in the picture.³ The most common site of AIN entrapment/compression is the tendinous edge of the deep head of the pronator teres muscle. Most patients experience poorly localized pain in the forearm and cubital fossa.

Answer 4

4.1 Lentiform fork sign

4.2 Metabolic acidosis associated with end stage renal disease

The “lentiform fork sign” has been described as bilateral symmetrical hyperintensities in the basal ganglia encircled by a hyperintense rim delineating the lentiform nucleus. Changes in uraemic solute retention, aberrant blood-brain barrier transport, disordered vascular reactivity, altered electrolyte and acid-base balance, and altered hormone metabolism are the most likely causes of the condition.⁴

References

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2. Benny R, Shetty K. The split hand sign. *Ann Indian Acad Neurol*. 2012; **15**(3): 175-6. doi:10.4103/0972-2327.99700
3. Xing SG, Tang JB. Entrapment neuropathy of the wrist, forearm, and elbow. *Clin Plast Surg*. 2014; **41**(3): 561-88. doi:10.1016/j.cps.2014.03.007
4. Narra RK. Lentiform fork sign in uraemic encephalopathy. *BMJ Case Reports*. CP 2021; **14**: e245623.