09 - Other neurological signs

Other neurological signs

© SPMM Course Other neurological signs Absent ankle jerks, upgoing plantars: This is an odd combination - UMN lesion of corticospinal tracts is expected to cause exaggerated ankle reflex (i.e. clonus) with upgoing plantar normally. But in subacute combined degeneration cord, Syphilitic taboparesis and Friedrich's ataxia and MND we see absence of ankle jerk as spinal reflex pathway is affected (afferent) while UMN type damage still produces Babinski – upgoing plantar. Anisocoria: This refers to pupillary asymmetry, which may result from sympathetic or parasympathetic dysfunction. Sympathetic dysfunction results in Horner syndrome, in which the pupil is small but reacts to light. Parasympathetic dysfunction results in the tonic pupil. Argyll-Robertson pupil, seen in neurosyphilis, is irregular and small; it does not react to light, but does accommodate. Anosognosia refers to the denial of illness and typically is seen in patients with right frontoparietal lesions, resulting in left hemiplegia that the patient denies. Asterixis involves momentary loss of tone and flapping of the hand are seen when the patient extends his arms in front with the wrists dorsiflexed. This is seen in patients with metabolic encephalopathies GAIT Conditions Antalgic gait Trauma, Osteoarthritis Broad, unsteady gait (Drunken/sailor’s gait) Cerebellar lesions Festinating/shuffling gait Parkinson’s Gait apraxia (Magnetic gait or failed gait ignition) Hydrocephalus High stepping due to foot drop Neuropathic / polio / peripheral lesions in MS Lurching, chaotic gait Huntington’s disease Pigeon gait Torsional abnormalities seen in hip dysplasias Propulsive gait Carbon monoxide poisoning (stiff with head and neck bent) Stiff, scissoring gait UMN lesions, cerebral palsy, cortical lesions in MS or stroke Stomping gait Friedreich's ataxia Pernicious anaemia, Tabes Dorsalis (Syphilis) Trendelenburg gait Weakness of the abductor muscles of the lower limb, principally gluteus medius Waddling myopathic gait Pregnancy, proximal myopathy.

© SPMM Course Beevor sign is seen with bilateral lower abdominal paralysis that results in upward deviation of the umbilicus when the patient tries to raise his head and sit up from the supine, recumbent position. Brown Sequard syndrome is due to hemisection of the spinal cord; the full syndrome is rare. Clinical features are related to various tracts that are severed.

 Chvostek sign is seen in hypocalcemia. Tapping the cheek at the angle of the jaw precipitates tetanic facial contractions. Doll 's eye maneuver: This refers to turning the head passively with the patient awake and fixated or when the patient is in a coma. In the former, the eyes remain fixated at the original focus when all gaze pathways are normal; in the latter, the eyes deviate in the opposite direction when the brainstem is intact. Friedreich’s ataxia is an inherited neurological disease (trinucleotide repeat) with pes cavus, kyphoscoliosis, cerebellar signs, impaired joint position / vibration, cardiomyopathy, optic atrophy. Gower sign: This sign, seen in

severe myopathies, occurs when the patient attempts to stand up from the floor. Patients first sit up, then assume a quadruped position, and then climb up their own legs by using their arms to push themselves up. Holmes-Adie syndrome - A benign form of the tonic pupil is seen in Holmes-Adie syndrome, i.e., a tonic pupil with absent patellar and Achilles reflexes. Horner's syndrome: Remember PAMELA – Ptosis, Anhidrosis, Miosis, Enophtholmos and Loss of ciliospinAl reflex. This collection of signs indicates a lesion of the sympathetic pathway on the same side. Seen in cervical lesions –e.g. apical lung tumour affecting cervical sympathetic ganglion, carotid aneurysms. Kayser-Fleischer ring: This is a brownish ring around the limbus of the cornea. It is best demonstrated by an ophthalmologic slit lamp examination. Marcus-Gunn pupil: This sign requires a swinging flashlight test to assess. As the flashlight swings from 1 eye to the other, the abnormal pupil dilates as the light swings back from the normal side. No anisocoria is seen. The phenomenon is also called a paradoxical pupillary reflex and indicates an afferent (optic nerve) pupillary defect. Lateral corticospinal damage Lateral corticospinal damage •Ipsilateral spastic paralysis below the level of the lesion •Babinski sign ipsilateral to lesion •Abnormal reflexes (UMN type hyperreflexia) Posterior column damage Posterior column damage •Ipsilateral loss of tactile discrimination, vibratory, and position sensation below the level of the lesion Lateral spinothalamic damage Lateral spinothalamic damage •Contralateral loss of pain and temperature sensation. This usually occurs 2-3 segments below the level of the lesion.

  Mononeuritis multiplex: Painful asymmetric asynchronous sensory and motor peripheral neuropathy with isolated damage to at least 2 separate nerve areas. Causes: diabetes, vasculitis, amyloidosis, direct tumor involvement, autoimmune disorders paraneoplastic syndromes. Milkmaid's grip: This refers to the inability to maintain a sustained grip commonly seen in patients with chorea. Myerson sign: Patients with Parkinson disease, particularly those with bilateral frontal lobe dysfunction, continue to blink with repeated glabellar taps. Optic neuritis: The classic triad of optic neuritis consists of (1) loss of vision, (2) eye pain, and (3) dyschromatopsia. 70% unilateral. Usually recover spontaneously (Multiple sclerosis) within 2-3 weeks. Movement- or sound-induced phosphenes are seen. Reduction in vision may worsen in bright light, a symptom that seems paradoxical. The Uhthoff symptom, described as exercise- or heat-induced vision loss is seen in 50% of patients. Afferent pupillary defect is noted on testing (i.e. direct light reflex absent; consensual present) Subacute combined degeneration is due to vitamin B12 deficiency; causes peripheral neuropathy, posterior column signs with pyramidal signs below the waist. Trombone tongue: This is seen in patients with chorea. It refers to the unsteadiness of the tongue when the patient tries to protrude it outside the mouth.

Rigidity Hypertonia Exaggerated reflexes Mild atrophy (disuse) e.g. pseudobulbar palsy Atonia or hypotonia Loss of deep tendon reflexes Atrophic, wasted Fasciculatione.g. bulbar palsy UMN Lesion UMN Lesion LMN Lesion LMN Lesion

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