

Picture quiz – Answers

1.

1.a Idiopathic guttate hypomelanosis

1.b As it is a benign condition it does not require specific treatment other than reassurance

Idiopathic guttate hypomelanosis is a common benign skin condition found among the geriatric population and is an acquired form of leukoderma. It is found commonly in the ninth decade of life. It affects both genders, all races, and all skin phototypes. Skin lesions are small, flat, pale, and white spots on the sun-exposed limbs. Skin biopsy shows absent or decreased melanin in the epidermis.

Idiopathic guttate hypomelanosis is a condition of cosmetic significance and does not require specific treatment. Sun protection may have a place in some cases.

2.

2.1 Atrophy of the midbrain with relative preservation of the pons, referred to as the 'hummingbird sign' on midsagittal images of MRI brain.

2.2 Progressive supranuclear palsy (PSP)

PSP is a form of atypical parkinsonism characterized by degeneration of substantia pars compacta, striatum, subthalamic nuclei, and pallidum along with neurofibrillary tangles and inclusions that stain for the tau protein. Other than features of parkinsonism they have slow ocular saccades with particular impairment of downward gaze, hyperextension of the neck with early gait disturbance, recurrent falls, and speech disturbances. They could develop cognitive impairment at any stage of the disease.

MRI midsagittal plane shows atrophy of the midbrain and relative preservation of the pons accurately measured by midbrain to pons area ratio which is reduced giving rise to the 'hummingbird' also known as the 'penguin sign'. (Flattening or concave outline to the superior aspect of the midbrain which should be upwardly convex).

3.

3.1 Distal interphalangeal (DIP) joint swelling of the left hand and index, ring, and little fingers of the right hand known as 'Heberden's nodes'

Proximal interphalangeal (PIP) joint swelling of both hands known as 'Bouchard's nodes'

Wasting of small muscles of both hands is probably secondary to disuse atrophy

3.2 Nodular osteoarthritis of the hands

Osteoarthritis of the hands is known to cause significant morbidity and restriction of the functional capacity of older adults. Bony enlargement, synovitis, and soft tissue swelling lead to nodule formation in both DIP joints and PIP joints known as 'Heberden's nodes' and Bouchard's nodes respectively. Absence of constitutional symptoms, deformities, and involvement of DIP exclude rheumatoid arthritis.

4.

Pellagra

Pellagra is a systemic disease caused by severe niacin (vitamin B₃) deficiency. Primary pellagra caused by a lack of niacin in the diet, occurs in food-limited populations. Malabsorption, drugs like azathioprine and 5-fluorouracil, and carcinoid syndrome are the secondary causes of pellagra. It is characterised by the 4 D's – dermatitis, diarrhoea, dementia, and, if untreated, death. Skin lesions are photosensitive, well-demarcated, and have sharp edges. They are red, scaly, and pigmented.