(*Refer to page 86*)

Answer: Familial clubbing

Digital clubbing refers to the enlargement of the distal portion of a digit. Clubbing occurs in stages over a long period of time and some patients may not be aware of the changes and its significance. When a normal distal digit is viewed from the side, the angle made by the proximal nail fold and nail plate (Lovibond's angle) is typically less than or equal to 160°. In clubbing, Lovibond's angle is increased and eventually progresses to an increase in the nail curvature with enlargement of the digit giving the drumstick appearance (*Refer to Supplementary text*). There is a spongy sensation when the nail is pressed toward the nail bed and this is a result of periungual erythema and softening of the nail bed.

Digital clubbing, also known as Hippocratic fingers, named after Hippocrates who first described it in a patient with empyema is one of the oldest clinical signs in medicine. Due to its resemblance, it is also known as 'nail clubbing', 'drumstick fingers', 'Waterglass'.

The exact underlying pathogenesis of clubbing remains unknown and many theories have been proposed. These include vasodilation, hypervascularisation, response to hypoxia, vagal system, proliferation of growth factor and genetic predisposition. Nevertheless, none have received widespread recognition as a complete explanation for the mechanism of digital clubbing. Digital clubbing that is associated with periostitis of long bone (Hypertrophic osteoarthropathy, HOA) is known as Piérre Marié-Bamberger syndrome. This patient does not have any HOA.

Finger clubbing can be unilateral or bilateral. In unilateral clubbing, it is usually related to stroke or vascular pathology (arteriovenous fistula for dialysis, aneurysm, inflammation) of the affected side. Bilateral finger clubbing can be caused by pathologies in various organ systems (*For the full list, please refer to the Supplementary Text*) including pulmonary malignancies, cyanotic cardiac disease and chronic suppurative disorders. Finger clubbing may also occur, without evident underlying disease, as an idiopathic or inherited form.

Familial clubbing was first documented in 1911 by von Eiselsberg in a 35-year-old man whose father, sister and uncle also had the same condition. The exact genetics of familial clubbing has not been identified but it is speculated that it is most likely inherited as an autosomal dominant trait. It is very important to exclude other causes of clubbing before reaching the above diagnosis.

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