An Atlas of Lumps and Bumps: Part 21

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Digital Mucous Cyst

Digital mucous cysts (also known as digital myxoid cysts) are benign, myxoid cysts of the digits, typically located near the distal interphalangeal joints or the proximal nail folds.[1,2] The peak incidence rates are in the age group between 40 and 70 years, but the condition may be seen as early as the teenage years.[3] The male-to-female ratio is 2:1.[3,4]

Two types of digital mucous cysts have been described. The myxomatous (superficial) type presumably arises de novo from the metabolic derangement of dermal fibroblasts that leads to excess production of hyaluronic acid.[1,3-5] The resulting accumulation of hyaluronic acid pushes the collagen of the dermis apart, forming a pseudocyst without an epithelial lining. This type of cyst typically involves the proximal nail fold.[5] The ganglionic (deep) type results from leakage of fluid from the distal interphalangeal joint.[1,3] A stalk that tracks down to the joint can often be demonstrated. Underlying osteoarthritis and osteophytes in the joint are often found.[6] Typically, this type of cyst is located near the distal interphalangeal joint and is analogous to a ganglion.[2] Trauma may be a causative factor in a minority of cases, especially among patients younger than 40 years.[1,2,5]

Characteristically, a digital mucous cyst presents as a slow-growing, solitary, circumscribed, semi-translucent, pink, erythematous or skin-colored, round-to-oval, dome-shaped, firm to fluctuant, cystic papulonodule measuring 1 to 10 mm in diameter on the finger and occasionally the toe **(Figures 1-6)**.[1-3] The overlying skin ranges from very thin to moderate-

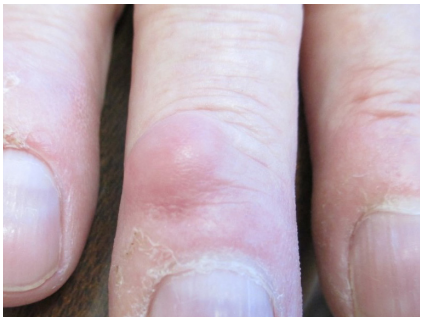

Figure 1.

Figure 2.

Figure 3.

Figure 4.

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This article is part of a series describing and differentiating dermatologic lumps and bumps. To access previously published articles in the series, visit https://www.consultant360.com/resource-center/atlas-lumps-and-bumps.

Figure 5.

Figure 6.

ly thick. The index and middle fingers of the dominant hand are more commonly affected.[1,5,7,8] Multiple lesions are uncommon.[7] The cyst is typically located to one side of the midline on the dorsal aspect of the digit between the distal interphalangeal joint and the proximal nail fold and is more common on the radial than the ulnar aspect of the finger **(Figures 1-3)**.[9] Less commonly, lesions are found between the proximal nail fold and the nail plate, beneath the nail matrix, or in the digital pulp **(Figures 4-6)**.[4,8] When the cyst is under the nail matrix (subungual digital mucous cyst), a red lunula, a longitudinal brownish band, transverse nail-plate over-curvature, and ingrowing nail plate may be seen.[1] Longitudinal grooving or depression of the nail (ie, groove sign) may occur if the nail matrix is involved either directly or through pressure effect **(Figure 7)**.[8]

The condition is usually asymptomatic

Figure 7.

but may be accompanied by discomfort or pain and decreased range of motion, especially if there is underlying osteoarthritis. The cyst may rupture spontaneously or produce a mucinous/gelatinous fluid when compressed, which may be clear or yellow-tinged. Digital mucous cysts recur commonly.[6,10]

The diagnosis is usually clinical, based on its distinctive clinical features. Dermoscopy of the lesion reveals a flesh-colored lesion with linear branched and serpentine vessels when no pressure is applied.[2] When pressure is applied, the vascular pattern becomes less prominent and the lesion becomes translucent with bright white areas.[2] The bright white structures are characteristic of increased collagen. Other dermoscopic features include dotted vessels, linear vessels, polymorphous vessels, red to purple lacunas, ulceration, and nail dystrophy.[11,12]

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