

An Unusual Hyperkeratotic Mucous Cyst

Sir,

Digital mucous cyst (DMC), also called myxoid cyst, mucinous cyst, ganglion cyst, and synovial cyst, was first described by Hyde in 1883 under synovial lesions of the skin.^[1] They usually present as a round to oval, translucent, smooth nodule. We encountered a skin coloured keratotic papule whose histopathology suggested a mucous cyst.

A 32-year-old female came to the dermatology outpatient department with a single asymptomatic raised lesion on her right index finger since four years. There was no history of prior trauma or discharge from the lesion.

On examination, there was a single skin coloured non-tender keratotic papule, firm in consistency with a keratotic rim, on the lateral aspect of the distal interphalangeal joint of the right index finger [Figure 1]. There were no similar lesions on other fingers or toes. There was no history of joint pain.

The differential diagnoses considered were callosity, verruca vulgaris, digital fibrous keratoma. An excisional biopsy was done using a 4 mm punch. Interestingly, the biopsy showed hyperkeratotic stratum corneum with thinned out epidermis overlying a large mucin collection [Figures 2 and 3]. Alcian blue stain was positive for mucin in the cystic space [Figure 4]. On the basis of these findings, we came to the diagnosis of digital mucous cyst. There has been no recurrence till 1 year follow up after the excisional biopsy.

DMCs are the commonest soft tissue tumors in hand, occurring between the second to fourth decades, affecting women twice as often as men. They occur as solitary, round to oval, skin coloured cystic nodular lesions on the digits of the hand. Often they discharge gelatinous material upon squeezing or minor trauma.

There are two types of DMCs.^[1-3] One is due to the degeneration of the synovial tissue and can have a stalk tracking back to the joint, commonly seen in elderly patients with osteoarthritis and around osteophytes.^[1-3] The other is the myxomatous type which, like our case, is analogous to focal mucinosis. This has a large cystic space containing mucin surrounded by collagen fibers with no lining of the cyst wall. The collagen at the periphery of the cysts appears compressed. It is not anatomically connected with the adjacent joint. Neither types have a true epithelial lining, which makes them "pseudocysts."^[3]

A preceding history of trauma might be present in a few cases. Sometimes there is decrease in range of motion in the nearby joint along with pain, tenderness, and nail deformity. It can cause a longitudinal groove along with the nail. The cysts are usually chronic, and it has been suggested that the cysts rarely resolve spontaneously. Non-surgical treatments like infrared coagulation, cryotherapy, carbon dioxide laser ablation, intralesional photodynamic therapy and injection of steroid or chemical like a sclerosing agent can be tried.^[3] However, these are associated with a higher percentage of recurrences. Repeated needling of the cyst with a sterile needle can also be done. Surgical excision of the cyst is found to be curative as in our case.



Figure 1: Single skin-coloured firm keratotic papule over lateral aspect of DIP joint

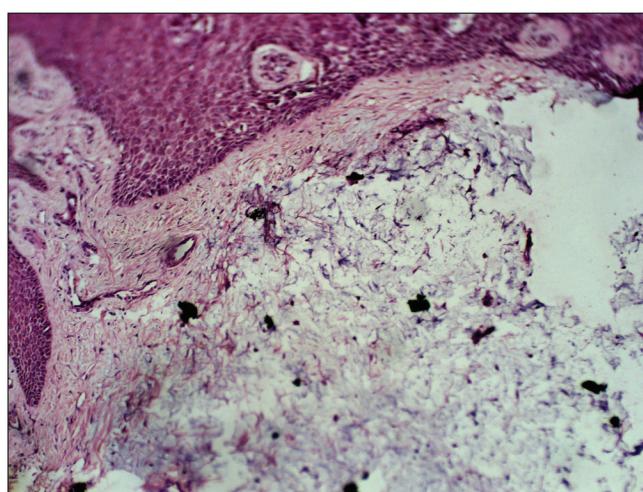


Figure 2: Mucin collection below the dermis (H&E, 1000X)



Figure 3: The mucin collection and the overlying thinned out epidermis with hyperkeratosis (H&E, 100X)

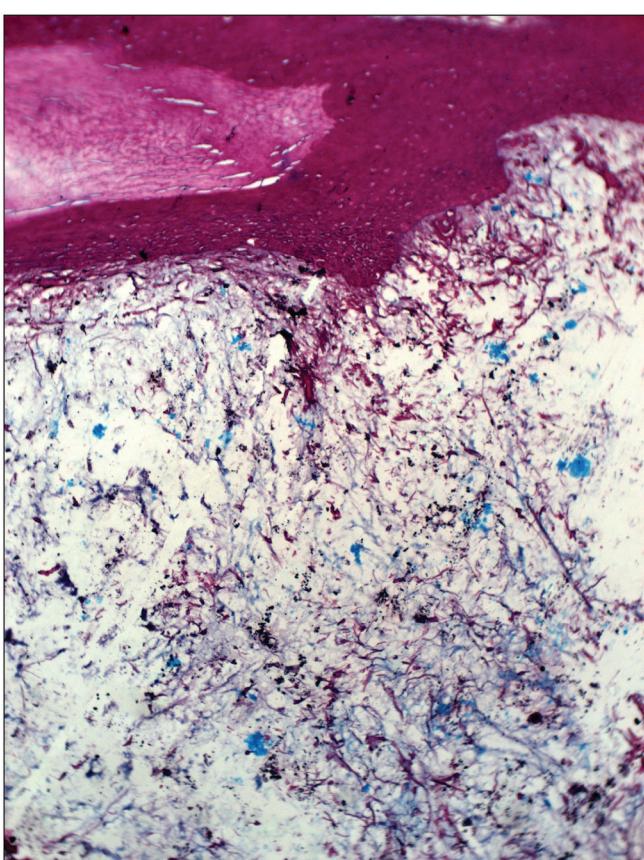


Figure 4: Mucin on Alcian blue staining (Alcian blue, x400)

Our case of a DMC is one of its kind with its unique unprecedented clinical presentation as a solitary firm keratotic papule.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

Harsimran Kaur Gujral, Akansha Anil Chadha, Atul M. Dongre, Chitra Shivanand Nayak

Department of Skin & V.D., TNMC & BYL Nair Ch. Hospital, Mumbai 400008

Address for correspondence: Dr. Harsimran Kaur Gujral, Department of Skin & V.D., TNMC & BYL Nair Ch. Hospital, Mumbai 400008. E-mail: harsimran.shine@gmail.com

REFERENCES

1. Hur J, Kim YS, Yeo KY, Kim JS, Yu HJ. A case of herpetiform appearance of digital mucous cysts. *Ann Dermatol* 2010;22: 194-5.
2. Hernández-Lugo AM, Domínguez-Cherit J, Vega-Memije ME. Digital mucoid cyst: The ganglion type. *Int J Dermatol* 1999;38:533-5.
3. Zuber TJ. Office management of digital mucous cysts. *Am Fam Physician* 2001;64:1987-90.

Submission: 14-02-2022

Revision: 02-04-2022

Acceptance: 25-04-2022

Web Publication: 15-09-2022

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com

Access this article online

Quick Response Code:



Website:
www.tjdonline.org

DOI:
10.4103/tjd.tjd_35_22

How to cite this article: Gujral HK, Chadha AA, Dongre AM, Nayak CS. An unusual hyperkeratotic mucous cyst. *Turk J Dermatol* 2022;16:101-2.