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Multiple myxoid cysts of both hands in a cashier – a case report

Digital mucous cysts (DMCs) are seldom seen as soft yellowish dome-shaped tumours localized on the dorsum of the digit and between the distal interphalangeal joint and the proximal nail fold (1,7). Sometimes the tumour may be subungual in the nail bed or nail matrix (1,2,5). In some cases mucous cysts may communicate with the distal joint space (2). These cysts tend to be relatively painless or asymptomatic lesions, but occasionally they can cause some tenderness (7). Palpation reveals a fluctuant mass inside the tumours (2,7). Sometimes the cysts may result in cosmetic deformities of the phalanx and may change the shape of the nail (3). DMCs are benign, uncommon, and self-limited in most cases (7). The etiology of DMCs is not clear, but may involve mucoid degeneration of connective tissue (7). They are supposed to arise as synovial extrusion (1,2). There is also a possibility that they are mini ganglion with a tiny duct connecting the cyst space to a joint (2). It is alternatively suggested that the degenerative change in the digital collagen observed in myxoid cysts can be caused by previous trauma or osteoarthritis (7). Literature data suggest that more women than men are suffering from mucous cysts (5). Another type of mucous cysts located in the oral cavity is mucocele (another clinical terms-mucous cyst, oral ranula, anterior lingual mucocele) (2,7). In most cases this pseudocyst occurs as the result of traumatic ductal insult and mucus extravasation into adjacent soft tissues (2,7). Typically oral mucoceles are found in the sublingual region, gingival and buccal mucosa, more rarely in the soft palate. It is observed with high frequency in children and in the association with the head traumas (1,2,5). We report a rare case of multiple myxoid cysts located on the both hands.

CASE REPORT

A 52-year-old woman presented grouped translucent skin-coloured, soft nodular lesions on the dorsum of the digits between distal interphalangeal joint and the proximal nail fold. The cysts involved 3 fingers of the right and 3 fingers of the left hand (Fig.1). They were localized over the joints and consisted of solitary mucous digital cysts, yellowish in colour. Each of this solitary nodules were from 5 to 10 mm in diameter. Mucous cysts were painful during the physical activity, especially when they were pressed. The first changes had appeared more than one year before the patients came to our hospital outpatient clinic. Skin lesions were becoming larger continually. The patient suggested that the lesions had been connected also with trauma caused by frequent handwashing. There were no changes in the structure of the nails of the

affected fingers. She did not complain of arthralgia. Radiologic examination of hand bones revealed neither changes in their structure nor osteophytic lesions, but some increase of the soft tissue masses (Fig.2). The laboratory tests were normal. Contact tests showed no allergy to nickel.

After the first cryotherapy with a 15 to 25 seconds application and 55 seconds thaw time we observed flattening of the surface of the nodules. Next we punctured the remaining cysts with a sterile needle discharging clear gelatinous substance from the nodules, in the amount of about 0.5 ml. Ten cryotherapy interventions were performed before the complete resolution was obtained. No recurrence was observed.



Fig. 1. Translucent dome-shaped coupled mucous cysts on the dorso-lateral aspect of the finger



Fig. 2. X-ray of bones revealed no changes, nonspecific soft-tissue density above the proximal digit

DISCUSSION

Hippocrates first appreciated ganglion cysts, describing a knot of tissue full of fluid. A lot of synonyms of the mucoid cysts exist: cystomata, myxomatous cutaneous cysts, myxomatous degenerative cysts, periarticular fibromas, synovial lesions of the skin, periungual ganglions, mucous cysts, myxoid cysts, synovial cysts, dorsal cysts, nail cysts, cystic nodules, digital mucoid cysts, digital myxoid cysts and digital mucinous pseudocysts (2,5).

The lesions localized on the dorsum area of the terminal phalanges can be viral warts or acquired digital fibrokeratoma, the last possibility being myxoid cysts. It is supposed that rapid increase in the number of the fibroblasts and degenerative changes of connective tissue, as well as a lack of epithelium can cause the cysts (1,2). DMCs are more common in women and are more frequent in subjects over the age of 40 (1,2,5). A 52-year-old woman –our patient fulfilled these criteria. Myxoid cysts often appear in the site of an old injury, sites of friction, and in sites of minor trauma (6,7). In our patient the lesions were probably connected with frequent handwashing with a powder-detergent. It is also very possible that the job of the patient (i. e. counting money with both hands, repeated straightening and bending of distal phalanxes in the palms) could have influenced the development of numerous lesions, because the most typical are solitary lesions localized on one hand. Myxoid cysts are not derived from the joint or tendon sheath, which was confirmed by the radiological tests.

There are different opinions concerning the treatment of DMCs (1,3,4,6,8). The first is that myxoid cysts do not need to be treated unless they are causing discomfort. Sometimes they will resolve by themselves spontaneously (2,5,7). The second possibility is to treat lesions by freezing with liquid nitrogen (1,2,3,4,5,7). Some authors prefer using cortisone injections, which are sometimes effective in making a myxoid cyst disappear. Others remove cysts surgically, but they have a high rate of recurrence (4,7,8). In our case we combined two techniques, cryotherapy and fine needle aspiration of mucoid cysts with discharging the substance. Our therapeutic modality caused complete recovery of our patient.

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SUMMARY

We describe an unusual case of mucous cysts in 3 fingers of both hands in a 52-year old woman, working as a cashier. The cysts were localized over the joints, between distal interphalangeal joint and the proximal nail fold. It is possible that the job of the patient

(i. e. counting money with both hands, repeated straightening and bending of distal phalanges in the palms) could have influenced the development of numerous lesions. Radiological examination revealed no symptoms of osteopathic changes, only the growth of soft tissue, without any abnormalities in the bone structure. Contact tests showed no allergy to nickel. The cryotherapy and removing mucus from the DMCs caused complete recovery of our patient.

Rzadki przypadek torbieli śluzowych obu rąk u kasjerki

Opisujemy rzadki przypadek torbieli śluzowych obu rąk, zlokalizowanych na powierzchni grzbietowej 3 palców dłoni u 52-letniej kasjerki. Wykwity zlokalizowane były nad stawami, pomiędzy stawem międzypaliczkowym a wałem paznokciowym. Możliwe, że zawód pacjentki (liczenie pieniędzy w kasie za pomocą obydwu rąk, wielokrotne naprzemienne prostowanie i zginanie paliczków dalszych) miał wpływ na powstawanie wielu torbieli. Badanie radiologiczne nie wykazało zmian w strukturze kości, a jedynie zwiększenie ilości tkanek miękkich. Wykonane testy kontaktowe nie wykazały istnienia alergii na nikiel. W wyniku krioterapii i usuwania treści śluzowej ze zmian chorobowych uzyskano całkowite wyleczenie.

