

An Unusual Pattern Of Osteoarthritis Of The Fingers In A Nurse. A Case Report

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Abstract

Anesthesia, as a profession, poses several risk factors to medical personnel. Hower, gave an interesting account on the problems facing anesthesia personnel. Infection, radiation from the use of x-ray equipments in operating room, physical trauma from lifting heavy patients, chronic back pain and mental trauma are among the common hazards of the profession. 1 Osteoarthritis of the finger joints is known to occur in several occupations.^{2,3} We report a case of unusual pattern of osteoarthritis in the dominant hand fingers of a nurse. The pattern of deformity appears to be attributed to the action of holding a mask against a patients' face. This has not, to our knowledge, been reported.

CASE REPORT

A 72-year old right-handed woman presented 11 years after retirement as an anesthesia recovery room nurse. During the last five years of her employment she has noted painless, progressive deformity of her index and small finger without functional disability. There was no history of arthropathy and no other relevant medical problems. She herself attributed the deformity to the way she had habitually held oxygen masks on patients' faces (Fig 1).

Figure 1



Examination revealed radial deviation at the distal interphalangeal joint of the index and ulnar deviation at the

distal interphalangeal joint of the little finger of the right hand (Fig 2). Osteophytes were present in a number of her distal interphalangeal joints but more prominent in these two deviated fingers. There were no other stigmata of disease and the left hand was normal apart from minor osteophyte formation at the distal interphalangeal joint.

Figure 2

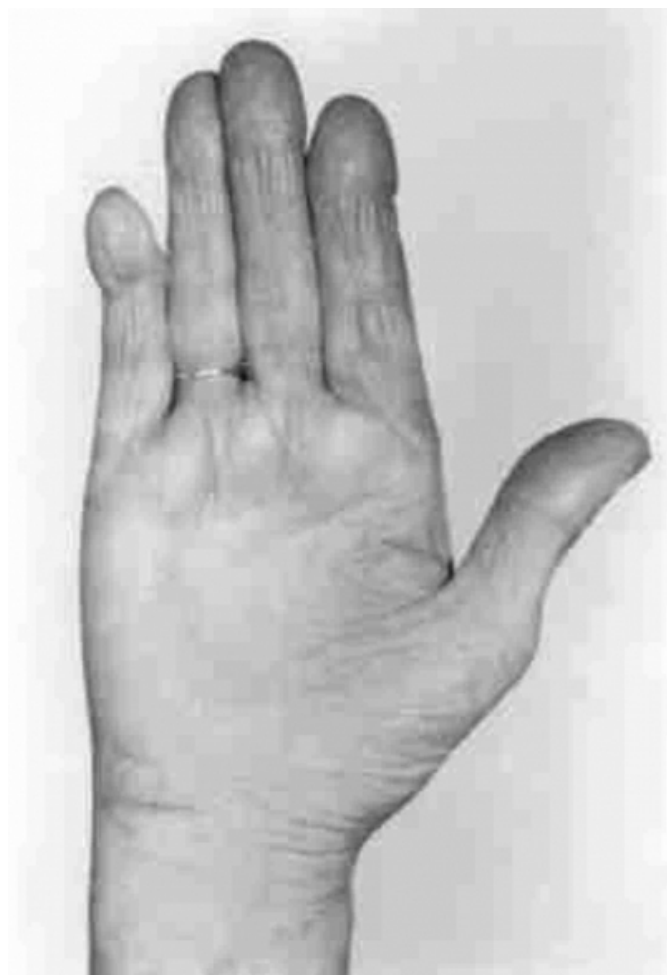


Figure 3

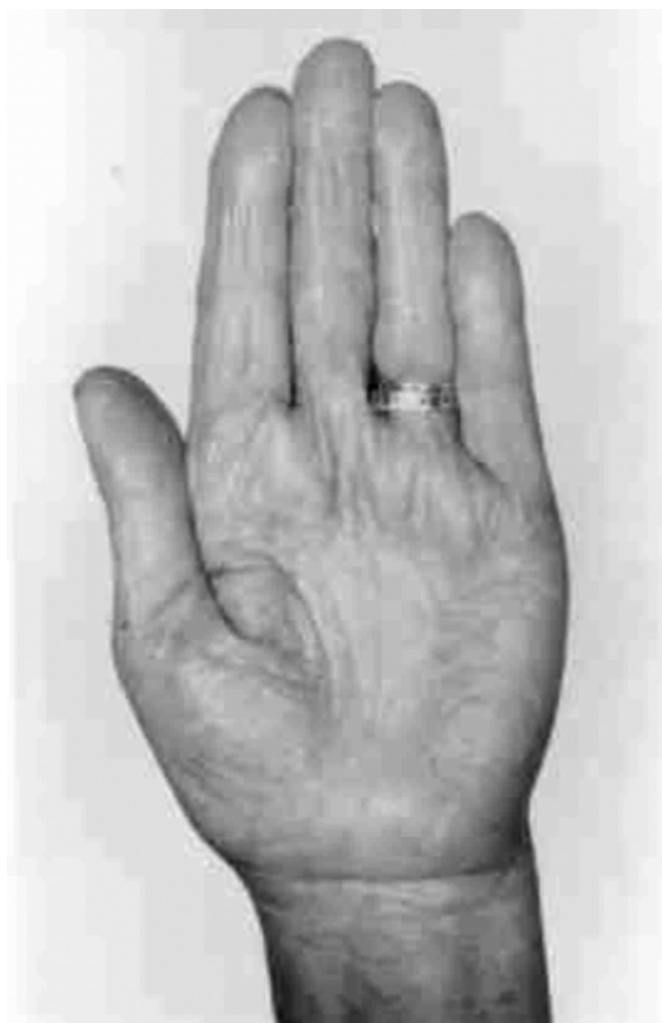


Figure 4



Figure 5



Radiographs of both hands showed the cardinal signs of osteoarthritis in the distal interphalangeal joints of the index and little fingers (Fig 3).

Figure 6



Figure 7



DISCUSSION

Osteoarthrosis of the interphalangeal joints of the hands was described by Crain as

“localised form of arthritis involving the finger joints, characterised by degenerative changes with intermittent inflammatory episodes leading eventually to deformities and ankylosis.”^{4,5}. The right hand is affected more commonly than the left and the condition is more common in females. ⁶ Stecher found that the predisposition to Heberden's nodes is genetically determined with a dominant inheritance in females and recessive inheritance in males.⁷

Osteoarthritis of the finger joints is known to occur in several occupations. Lawrence found evidence of a link between occupation and the occurrence of arthritic changes in the distal and proximal interphalangeal joints of the fingers whilst Lehto et al reported an increase in the

incidence of distal interphalangeal joint osteoarthrosis in dentists below the age of 50, supposedly related to the extensive use of the precision grip in dentistry.^{2, 3}

In the case reported here the patient herself identified the striking influence of the grasp pattern of her hand during her daily work holding oxygen masks on the faces of patients recovering from general anesthesia. She attributed her deformity to this occupation, a credible explanation in the absence of corresponding disease in the opposite hand. The case presented herein may seem anecdotal, further studies are warranted to elucidate if such association exists at a broader scale.

CORRESPONDENCE TO

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