THE HAND PATIENT

Having had the pleasure to teach and train students for many years, and the privilege of having patients referred to me by ex-student General Practitioners, one realizes that medical school training can only impart but a general overview of knowledge. It is impossible and unfair to expect of any medical student to "know it all".

For this reason, Continuing Professional Development (CPD) is imperative. This post-graduate training should however, be presented in such a way that the busy practitioner readily has access to the relevant information in a succinct form and in an understandable jargon. This continuing education is part of the responsibilities of a consultant specialist.

Communication between the specialist and the referring doctor should not only include information regarding that particular patient, but should also contain some informative detail on the pathology and management.

It is sincerely hoped that this edited collection of selected case reports will promote a well informed communication between the practitioner and his/her "hand patient".

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OSTEOARTHRITIS OF THE DISTAL INTERPHALANGEAL JOINT OF THE FINGERS

Dear Colleague,

RE: Your patient with painful nodules of the dip joints of her fingers and deformed nails

Thank you for the referral of your patient Mrs. J. O, a 53 year old right handed lady who complains of painful, hard, tender nodules at the DIP-joints of her fingers. She also has a soft swelling over one of the joints, which causes a deformity of the nail bed. Furthermore one of her main complaints are the unsightly swellings of the DIP-joints with deviation. She has had this problem for a number of years. This condition affects her activities of daily living. She has difficulty in doing needlework because of the pain. She has tried various painkillers, which initially were of some benefit, but lately she seems not to get any relief from these non-steroidal anti-inflammatory drugs. Two years ago she was operated for a median nerve compression in the carpal tunnel of her right hand. The symptoms have completely disappeared.

On examination Mrs. O clearly has osteoarthritis of both hands. She has strong hands with no apparent deformities at the wrist or the MP-joint level. The neuro-vascular examination of the hand is essentially normal. One can see the previous scar of carpal tunnel release in the right hand, which has healed well. She also has signs of osteoarthritis of the first carpo-metacarpal joint. This is evidenced by the swelling at the base of thumb. She only has occasional tenderness in these joints when she picks up an object such as a plate with food. The DIP-joints are obviously swollen and deformed. On most joints one can feel hard nodules which are osteophytes also called Heberden nodules. On two fingers i.e. the left index and the right middle finger a small translucent cyst lies just under the skin distal to the joint. The nail has a groove due to the pressure affect of this little cyst. This is a mucoid cyst which develops due to the arthritis in the joint. Movement of the DIP joints are painful and limited.

Special investigations includes plain x-rays of both hands, postero-anterior, lateral and oblique. The x-rays clearly reveal distruction of the DIP joint of most fingers with the obvious deviation and the osteophytes. One can also see soft tissue swelling.

The diagnosis is therefore osteoarthritis with Heberden nodules and mucoid cysts of the DIP joint of the fingers in both hands. The IP joints of the thumbs are spared. She also has early osteoarthritis of the first carpo-metacarpal joints.

The management starts of with conservative treatment such as anti-inflammatory drugs. Unfortunately these have become ineffective necessitating surgical intervention. Since the joints are severelly destructed, intra articular cortisone injection has limited value. It is extremely difficult to get into the joint because of the limited space and the osteophyte formation.

Since this condition is more anoying than serious, surgery is indicated for pain and function loss. The choices we have is a debridement of the joint which includes removal of the osteophytes and the mucoid cysts. This will reduce the unsightly swelling and to some degree the pain. Of course the deformity will still exist. The patient may have improved function. The more permanent solution to this problem is a thorough debridement of the joint including the removal of the osteophytes and the mucoid cyst and an arthrodesis of the DIP joint. This will allow correction of the deformity. The arthrodesis is done in very slight flexion of about 10-15°. One would not like to have more flexion at the DIP joint since this would present as a crooked finger and prevent good pulp-to-pulp function. The method of internal fixation could either be a screw or crossed Kirschner wires, which I prefer. This allows for slight flexion at the DIP joint which gives a more cosmetic acceptable result. These wires usually stay in for about four months until union has taken place. They can be removed under local anaesthetic.

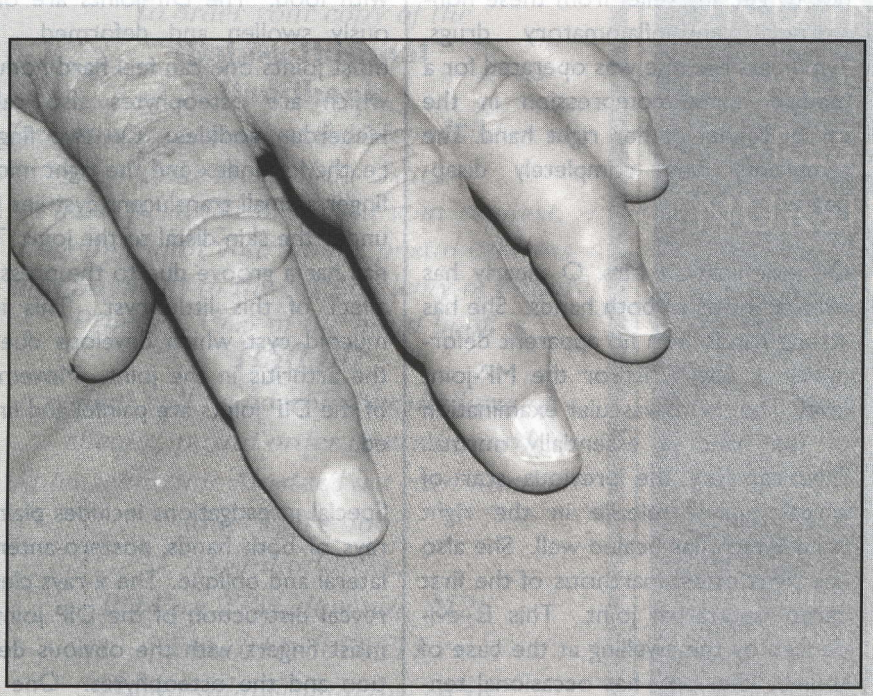
Discussion:

Osteoarthritis of the DIP joint which includes Heberden nodules (osteophyte formation) and mucoid cysts form part of a larger group of diseases which include osteoarthritis of the first carpo-metacarpal joint, carpal tunnel syndrome and triggering of the fingers. Patients often suffer from one or more of these condition either at the same time or in succession. One should explain this combination of diseases with the patient. One finds that patients who have not been informed may develop a perception that the one treatment causes the next condition to develop.

As stated before osteoarthritis of the DIP joint is not a serious disease although very annoying and cosmetically unacceptable. There is no urgency to operate these cases since the morbidity of DIP joint fusion needs some co-operation and tolerance from the patients side. The nail deformity due to the pressure of the mucoid cysts will eventually disappear once the mucoid cyst has been excised. Sometimes one finds only a mucoid cysts as an early indication of DIP joint osteoarthritis. Removal of only the cyst is often only of temporary value. One has to do a debridement of the joint at the same time to remove the irritation, which causes the inflammation and eventually the cyst.

Occasionally one finds osteoarthritis of one or more of the PIP joints. This poses an additional problem which should be addressed by an arthroplasty of that particular joint after arthrodesis of the DIP joint.

With sincere regards,
Ulrich Mennen



Legend:

Osteo-arthritis of the distal interphalangeal joints of the fingers is recognized by the osteophytes (Heberden nodules), mucoid cysts and often the longitudinal groove in the nail due to pressure of the cyst on the nail bed.