Heberden´s Nodes in Women Complicated with Tophi Gout

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Abstract: Gout is currently a very widespread metabolic joint disease. In the course of the long history of gout treatment since Hippocrates the opinion of this disease have changed many times, especially concerning frequency, cause and therapy. Now we are far from thinking that gout occurs only in the "upper class" male population. This article comments the occurens of gout tophi in atypical locations in females, which occur not only on the typical sites, namely 1st metatarsal joint of the foot thumb as a typical for the primary gout. It is also necesary to note that gout currently occurs in females more often than before, including also the tophi gout, which appears not only as primary but also as a secondary gout. It occurs in patiens with chronic renal failure, on the basis of long-term renal disease with longlasting hyperuricaemia. The crystals may settle in a remote damaged hand joint at sites of long lasting osteo-arthritis. This especially applies to Heberden´s nodes (distal interphalangeal joint), mainly on the index fingers. Rarely also can applies to the proximal interphalangeal joint (Bouchard´s nodes). Similar observation has not been found so far in the literature.

Keywords: Tophi gout in women, peripheral osteoarthritis, fingers, Heberden´s nodes, Bouchard´s nodes.

INTRODUCTION

Gout is currently considered to be a multisystem metabolic joint disease which more then thought up to now occur frequently together with extra-joint affections. This includes skin, in the form of tophi, bursitis and/or visceral damage [1-3]. We have not yet come across any report on remote effects of tophi gout in females with massive matter depostis selectively in Heberden´s nodes on the hands, most frequently on the index fingers. This is always accompanied with high uricaemia resulting from the primary or secondary gout. At present secondary gout appeal to increase in its frequency, mainly in patiens with chronic renal disorder with renal failure.

As gout incidence has been increasing, its additional remote localizations with unusual prog-ression may be observed. It is necessary to revise the earlier statement on most frequuent occurence in males. In fact, the first manifestations of this disease in females mostly occur after menopause. Development of more severe forms of gout in females becomes more frequent, including the presence of tophi in unusual locations. Rare typical seizures in foot thumbs have now been observed in women. This depends on the period of lasting hyperuricaemia, primary gout, or gout acompanying another disease – secondary gout. This work mainly describes monoarticular tophi gout in a joint already damaged with osteoarthritis. Gout may be considered to selectively effect joints with earlier degenerative disease, albeit the joint alteration is minimal. This is often connected with further massive deposit soft tophi matter. However, there is no previous report on affecting peripheral hand joints in females with previous joint damage with osteoarthritis. This effect is in addition isolated without manifestations in any other joints.

CASE REPORTS

Patient 1 (KO): 72-year-old fiale, suffering from hyper uricaemia for more than 3 years with arround 500 umol/l between 155 and 192 umol/l of kreatinine, arround 17 mmol/l of urea, mild secondary anemia and overall good diuresis. The patient was treated by dietary measures with limited intake of purine containing substances, and medicated with Allopurinol and (in the past 3 mounths) Febuxostat. Especially an

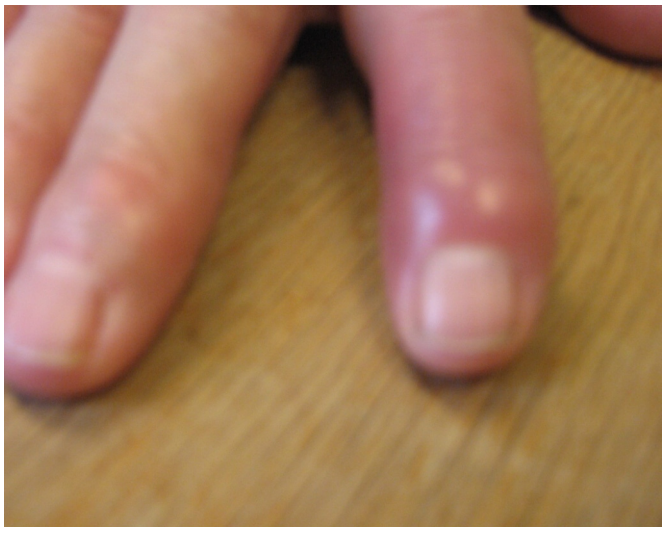

Figure 1: Patient no. 1, Before treatment.

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effect of Febuxostat related regression of the yellowish mass around the typical and a large Heberden´s nodus on the right index finger was observed (see Figure **1**). The previous diagnosis of the patient was nerphro-sclerosis with continually increasing uricaemia. After 3 months the massive tophi diseappeared completely.

Patient 2 (MA): 81-year-old female with hyperuricaemia of unknown duration. She reported extensive pain in the left fingers Heberden´s nodus in the past 12 days. In the most recent days the finger turned yellow and swollen, allowing for neither movement nor touch (Figure **2**). So far she only occasionally used non-steroid antirheumatics. Further clinical and laboratory examinations revealed nephrotic changes, included but not limited to increased levels of nitrogenic containing substances, mainly creatinine, reaching up to 230 umol/l and uricaemia to 600 umol/l. Febuxostatd therapy was immadiately introduced with significant improvement already after 4 weeks. In another 3 weeks the yellow matter in the index finger nearly diseappeared. The patient was healed, no other joints were affected, and the pain ceased. The patient was handed over to the nephrology department with diagnosed prolonged uraemia accompanying diabetic nephropathy (last glycaemia 7.8 mmol/l).

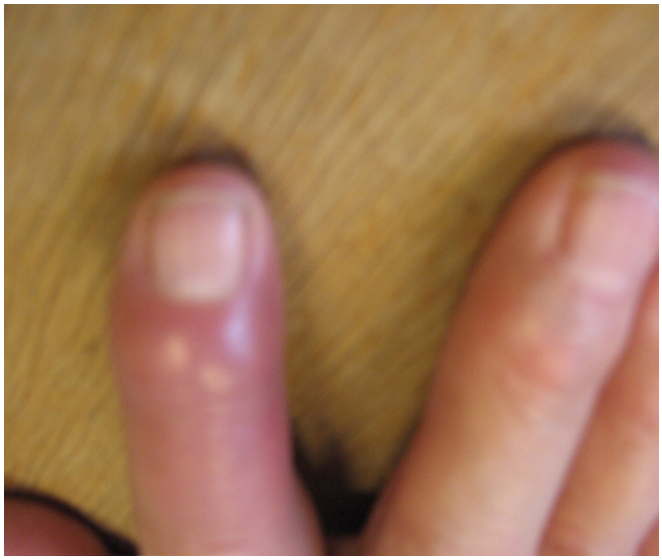

Figure 2: Patient no. 2, After one week of treatment with Allo-purinol.

Our female 3 (BM): she was the oldest (84) patient, treated for 2.5 years for protracted uraemia, reported (through her daughter) pain in the proximal 3rd interphalangeal joint of the right hand. She was the only woman not displaying the yellowish matter in the distal interphalangeal joint. In this case also 185 umol/l creatinine was found. In the recent year uricaemia raised over 600 umol/l, the creatinine was around 200 umol/l and urea 17 mmol/l. Some other laboratory results, mainly the blood count, corresponded to this. But so far uraemia was succesfully treated without the need for any alternative therapy. The patient was stll far from the necessity of haemodialysis. The therapy included Allopurinol, followed by Febuxostat, that was following by only slower regression (Figure **3**).

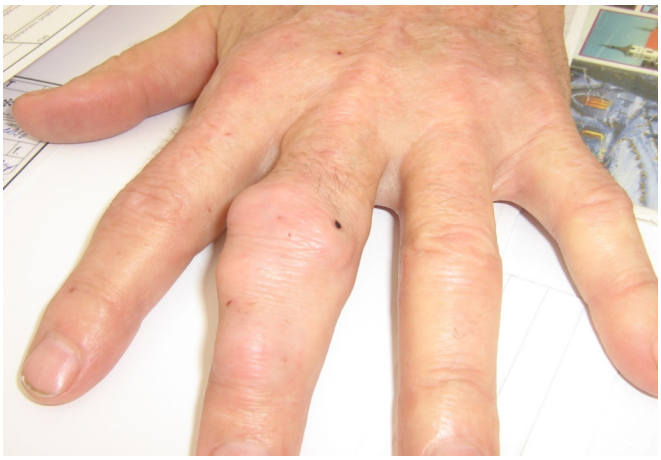

Figure 3: After 2 week´s therapy with Febuxostat.

DISCUSSION

Literature references include only a single report [4] discussing the possibility of association of osteoarthritis and gout. Another our published report [3] included analysis of 435 patients with gout, including 40 females, all being after the menopause. Tophi appeared in 4 females, of which in 3 were in connection with chronic uraemia. The uricaemia levels were over 468 umol/l, the highest one being 610 umol/l before the initiation of the therapy. As for the occurence of tophi in females, we already earlier mentioned more frequent atypical localizations of ureic matter deposits. Deposits in auricles were observed in none of the female patiens.

Together this is important observation to support the necessity of careful monitoring of articular changes in patiens with chronic uraemia. There is mainly the risc of development of tophi not only in typical locations but also in remote locations, even in visceral locations of ureic acid matter deposits which are sometimes hard to reliably verify [1,2,5,6]. But nevertheless we are still able to substancially help to the affected patiens. What is necesary is an early diagnosis and immediate commencement of therapy with effective uricosurics [6] which mainly include 1st metatarsal foot joint. There might even be no seizure progress. None of our 3 female patiens showed disease progression with

seizures, and they only reported chronic pain, loss of mobility and continuous development of deposits of the ureic crystals in the most peripheral joints on both hands. As gout has been increasingly affecting elderly women, similar gout manifestations may be expected also in the future [1,8].

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