

Hypercholesterolemic arthritis in a young female

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A 30-year-old female presented with arthritis of the small joints with swellings on the proximal inter phalangeal joints since 18 months (Figure 1). She with normal Erythrocyte Sedimentation Rate (ESR) and C-reactive protein levels; her rheumatoid factor, anti-cyclic citrullinated peptide, and antinuclear antibody (ANA) tests were negative. Ocular examination revealed a grayish-white ring at the periphery of cornea, which indicated corneal arcus (Figure 2). Lipid examination showed the following: total cholesterol, 325 mg/dL (normal value <200 mg/dL) and low density lipoprotein cholesterol, 271 mg/dL (normal value <130 mg/dL), with normal serum triglyceride and high density lipoprotein levels. The biopsy sample obtained from skin nodules revealed numerous foam cells in the dermis, and this was consistent with the findings of xanthomas (Figure 3). Plain radiographs of the hands did not show erosions (Figure 4). Her family history was negative for similar illnesses. She received atorvastatin 20 mg/day and paracetamol; 2 months later, her lipid levels returned to normal

levels with significant improvement in arthritis, but corneal arcus and xanthomas persisted. She was diagnosed with arthropathy related to dyslipidemia. Other rheumatologic features include recurrent achilles pain or tendinitis, acute mono/oligoarthritis, and migratory (rheumatic fever-like) polyarthritis (1). The symptoms might resemble those of rheumatoid

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Cite this article as: Padhan P, Pradhan P, Mohanty I. Hypercholesterolemic arthritis in a young female. Eur J Rheumatol 2020; 7(2): 96-7.

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Submitted: 12 February 2019

Accepted: 20 March 2019

Available Online Date: 20 May 2019

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Figure 1. Swelling over the proximal inter phalangeal (PIP) joints.



Figure 2. Gray white ring at periphery of cornea: corneal arcus.

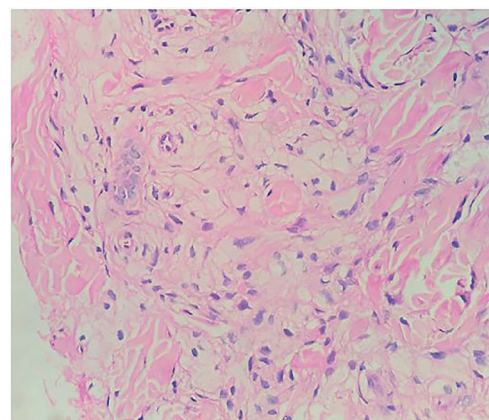


Figure 3. Photomicrograph of lower dermis with numerous foam cells (lipid-laden macrophages) within the dermal collagen (H&E, 400x).

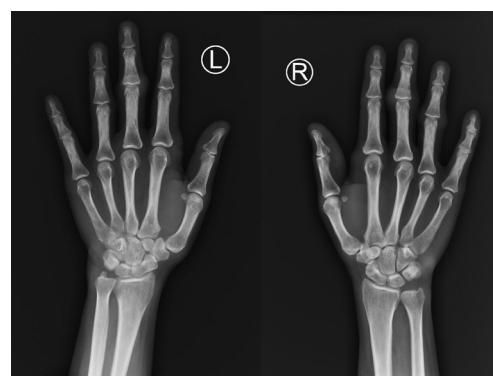


Figure 4. Plain radiographs of hands with soft tissue swelling on PIP joints.

arthritis with rheumatoid nodules, indicative of tophaceous gout. Unlike xanthomas, rheumatoid nodules are often found over the extensor surfaces, but they are almost invariably associated with circulating RF and a characteristic histological appearance (2). Hyperlipidemia should be considered in a patient presenting with articular symptoms with normal ESR and CRP.

Informed Consent: Written informed consent was obtained from patient who participated in this study.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept - P.P., I.M.; Design - P.P., P.P.; Supervision - P.P., P.P.; Resources - P.P., I.M.; Materials - P.P., I.M.; Data Collection and/or Processing - P.P., IM; Analysis and/or Interpretation - P.P., IM Literature Search - P.P., P.P.; Writing Manuscript - P.P., I.M.; Critical Review - P.P., I.M.; Other - P.P., I.M.

Conflict of Interest: The authors have no conflict of interest to declare.

Financial Disclosure: The authors declared that this study has received no financial support.

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