

CLINICAL IMAGING

## The red hearing: swollen ear in a patient with ulcerative colitis

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Relapsing polychondritis is a rare connective tissue disease of unknown etiology characterized by recurrent inflammation, degeneration and deformity of auricular cartilage. The autoimmune inflammation may also affect cartilage at other sites including nose, larynx, trachea and bronchi. Here, we present a case of relapsing polychondritis in a patient with ulcerative colitis. We also review the presentation, diagnosis and management of this condition.

Keywords: *cartilage disorder; chondritis; relapsing polychondritis; ulcerative colitis*

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A 20-year-old male who was maintained upon azathioprine therapy for ulcerative colitis presented with pain, swelling, and redness of his right ear for 1 week. He was afebrile but his physical examination was remarkable for an erythematous, thickened, extremely tender, right pinna with sparing of the ear lobe (Fig. 1) and a normal internal ear canal and tympanic membrane. Laboratory examination revealed a leukocytosis of 14,100/mm<sup>3</sup>, erythrocyte sedimentation rate of 17 mm/hr, and elevated C-reactive protein of 2.2 mg/dl. Serum electrolytes, creatinine, and urinalysis were normal. Antinuclear antibody, rheumatoid factor, and complement levels were normal. Blood cultures were negative. Initially, intravenous piperacillin–tazobactam was initiated for presumed otitis externa with cellulitis in immunocompromised host, but computed tomography showed thickening of the auricular cartilage with no abscess, and relapsing polychondritis (RP) was diagnosed. Prednisone 50 mg

daily was started with dramatic improvement over the next 2 days, and he was discharged.

RP is a rare connective tissue disease of unknown etiology characterized by recurrent inflammation, degeneration, and deformity of auricular cartilage. The autoimmune inflammation may also affect cartilage at other sites, including nose, larynx, trachea, and bronchi (1–3). RP may occur in isolation, but it often presents in patients with other autoimmune disorders, including inflammatory bowel disease, as in this case. Diagnosis is made clinically and the Michet criteria are often helpful, although these have not been validated (2). A key discriminator of auricular polychondritis from local soft tissue infection is a well-demarcated inflammation overlying cartilage with sparing of the earlobe, which does not contain cartilage. This is well demonstrated in the current case. Anti-inflammatory agents, such as colchicine and dapsone, can be used for mild disease, but low-dose corticosteroids are usually required chronically. High-dose corticosteroids, immunosuppressive, or biological agents may be required for severe forms (2).

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### References

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Fig. 1. Acute right auricular chondritis with sparing of the ear lobe in a patient with relapsing polychondritis.