

Incidental Allergic Fungal Rhinosinusitis (AFRS)

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Figure A: Sinus CT. Black arrow indicates unilateral heterogenous opacification of all paranasal sinuses.

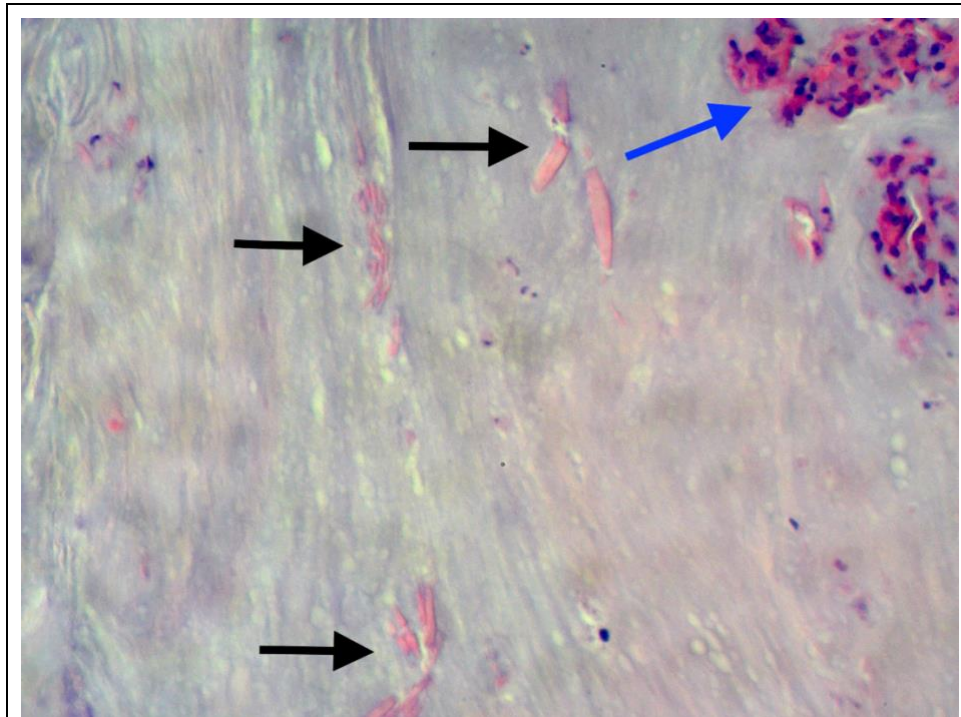


Figure B: Histological examination. Black arrows indicate many Charcot-Leyden crystals in allergic mucin. The blue arrow indicates eosinophilic infiltrate (Hematoxylin-Eosin $\times 200$).

Clinical Case

An otherwise healthy 17-year-old Caucasian female presented with a unilateral sinonasal mass, which was incidentally found in a cone beam computed tomography (CT) scan. The patient had an orthodontic prosthesis fitted recently and there was no history of atopy. Nasendoscopy revealed a unilateral polypoid mass and sinus CT scan displayed unilateral heterogeneous opacification of all paranasal sinuses with anterior ethmoid bone erosion and maxillary and sphenoid sinus bone thinning and expansion (Figure A). The patient underwent endoscopic sinus surgery, where characteristic eosinophilic mucin was found intraoperatively and was confirmed on histology. There were no signs of invasive infection and marked eosinophilic infiltrate with Charcot-Leyden crystals were reported (Figure B). Fungal staining was positive and microbiology culture identified *Alternaria* species. The diagnosis of AFRS was confirmed according to Bent and Kuhn's criteria.

AFRS may present as an incidental radiologic finding, which should be differentiated from sinonasal neoplasms. Endoscopic sinus surgery with total removal of allergic mucin and inflammatory material provides effective treatment.