Noninvasive fungal sinusitis (fungus ball) - diagnostic difficulties

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Summary
Noninvasive fungal sinusitis (fungus ball) is usually found in one sinus and the most frequently is caused by *Aspergillus*. Diagnostic criteria are based on histopathology, and fungal cultures are frequently negative. The clinical symptomatology mimics chronic rhinosinusitis and radiology, specially CT and MRI are helpful for making decision of surgery. The authors present 4 cases of fungus ball of the paranasal sinus. In one case clinical symptoms, endoscopic examination of nasal cavity and CT scans suggested foreign body in the maxillary sinus. In other case clinical and radiological evidences made us to thing of neoplasmatic disease of the frontal sinus. In remaining two cases mycetoma was found in the sphenoid sinus. Surgical removal was the treatment in all cases and followed by systemic antifungal therapy in one case because of bone destruction. Histopathology revealed hyphae of *Aspergillus* without evidence of tissue invasion, fungal cultures in two cases were negative, an in other two *Aspergillus fumigatus* culture were obtained.