A 61-year-old woman was referred to the Department of Otolaryngology at University Hospital with postnasal drip that had progressively worsened over 1 year. She took medication prescribed at a local clinic for 3 months, but her condition did not improve. She denied any history of underlying systemic disease, facial trauma, or previous sinus or dental surgery. There was no history of long-term steroid use. Nasal endoscopy showed no evidence of disease; no polyps or nasal masses were visible during the examination. Coronal computed tomography (CT) scans showed a soft-tissue mass with a round surface.
on the inferior wall of the right maxillary sinus (Figure 1A). The differential diagnosis included simple maxillary sinusitis, inspissated and conglomerated mucus, and maxillary sinus cyst.

An uncinectomy and a middle meatal antrostomy were performed under general anesthesia. We examined her right maxillary sinus using a 30° nasal endoscope, but no lesion was found. We then attempted to observe the maxillary sinus using a 45° nasal endoscope. A small dark-brownish mass was observed on the inferior portion of the maxillary sinus (Figure 1B). We unsuccessfully attempted to remove the mass with giraffe forceps and angled curved suction tubes. The mass moved to the area of the maxillary sinus ostium after saline irrigation and was then removed with suction (Figure 1C and D). Specimens of the maxillary sinus were examined pathologically and were consistent with an Aspergillus infection. After surgery, antibiotics were prescribed for 2 weeks. Nasal saline irrigation was recommended 2 to 5 times daily depending on the presence of crusts. The postoperative course was uneventful, and the patient experienced no further symptoms.

Fungus balls (FBs) are the most frequent noninvasive fungal sinusitis in immunocompetent adults. Complete surgical removal of FBs is required for noninvasive forms. The maxillary sinus is most commonly affected by FBs, followed by the ethmoid and the sphenoid sinuses.

Computed tomography and magnetic resonance imaging are reliable tools for identifying sinonasal FBs. Fungus balls are easily identified as calcified central dense masses free from the sinus walls on CT scans. Computed tomography findings are related to the content of heavy metals, such as iron, manganese, and calcium within fungal hyphae. The prevalence of intrasinus calcifications on CT scans in patients with sinonasal FBs has been reported to be approximately 70%. However, when there is inflammation of the sinus mucosa FBs cannot be distinguished from surrounding mucosal thickening or secretion on CT scans. Computed tomography scans are unable to identify any definitive findings to secure the diagnosis of a sinonasal FB. Magnetic resonance imaging can be used to augment CT scans, although the cost is high.

In this case, we did not preoperatively diagnose the maxillary sinus FB on CT scans, which showed the soft-tissue density on the inferior wall of the maxillary without any calcification. The use of an angled scope allowed visualization of the inferior portion of the maxillary sinus and enabled the FB to be removed without any problems.

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