

Isolated Sphenoidal Aspergilloma: An Unusual Presentation

A Gupta, S Bansal, Pradipta

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Abstract

Aspergillosis of paranasal sinuses in an immunocompetent host is now a known entity but of isolated sphenoid sinus is quite rare. Rowe- Jones and Friedman (1994) reported only 15 cases of aspergillosis of the sphenoid sinus between 1979 and 1994. Klossek et al published a series of 10 cases of sphenoidal aspergillomas in 1996, but all of these cases were not of isolated sphenoid sinus. Aspergillosis often presents with vague complaints and absence of clinical findings, making its diagnosis difficult. We are reporting a 50-year-old immunocompetent male patient with an unusual presentation of recurrent blood stained nasal discharge as the only presenting symptom of isolated sphenoidal aspergillosis. This is to highlight that, though a rare entity, aspergillosis should be kept in mind in cases of chronic sinusitis with non-specific symptomatology, unresponsive to usual conservative therapy even in immunocompetent patients.

INTRODUCTION

Aspergillosis of paranasal sinuses in an immunocompetent host is now a known entity but of isolated sphenoid sinus is quite rare. Aspergillosis often presents with vague complaints and absence of clinical findings, making its diagnosis difficult.

Aspergillomas of the paranasal sinuses in immunocompetent hosts has been described in Sudan and other developing countries (1,2). Rowe- Jones and Friedman (1994) reported only 15 cases of aspergillosis of the sphenoid sinus between 1979 and 1994 (2). Klossek et al published a series of 10 cases of sphenoidal aspergillomas in 1996, but all of these cases were not of isolated sphenoid sinus (3). We are reporting a 50-year-old immunocompetent male patient with an unusual presentation of recurrent blood stained nasal discharge as the only presenting symptom of isolated sphenoidal aspergillosis.

CASE REPORT

A 50-year-old male patient presented to the outpatient department of ENT, Head and Neck Surgery Department of PGIMER, Chandigarh with blood stained nasal discharge off and on for the last 2 years and occasional postnasal discharge. The patient had no other ENT complaints. The patient had no visual complaints and no history of any headaches. The patient had already taken medical treatment

for his complaints in the form of the antibiotics, local and systemic decongestants. He did not have any medical disease. Physical examination revealed no abnormalities and no significant evidence of respiratory tract infection. All his routine hematological and serological tests were within normal limits.

A nasal endoscopy was performed as an OPD procedure, which revealed only edema in the sphenoethmoidal recess. Keeping in mind his past treatment history, a CT Scan was ordered which revealed a heterogeneous opacity with foci of hyperdense tissue involving the (R) sphenoid sinus with (L) concha bullosa. Fig.1(a). No abnormality was detected on the CT scan in any of the other sinuses. Fig.1(b).

Figure 1

Figure 1: CT Scan PNS (Coronal cut) showing a heterogenous opacity involving the right sphenoid sinus only.



Figure 2

Figure 2: CT Scan PNS (Coronal cut) showing the normal bilateral maxillary and ethmoid sinuses.



A diagnosis of sphenoid sinusitis was made and the patient underwent an endoscopic sinus surgery. A wide right-sided sphenoidotomy was done and a cream colored, freely

movable mass was found in the sinus with hypertrophied mucosa of the sinus, which raised a suspicion of fungus. Adequate surgical debridement was done. The material evacuated was sent for fungal smear and histopathology. Fungal smear was positive and the histopathological examination was suggestive of aspergillosis. The sinus mucosa did not show any invasion by the fungus. Patient has been completely relieved of his symptoms for the last 10 months and is on regular follow up.

DISCUSSION

Aspergillus infection of the sinuses can either be non invasive or invasive. Non invasive infections are either allergic sinusitis or a sinonasal fungal ball. Aspergilloma is a noninvasive form of Aspergillus infection that may develop in the paranasal sinuses. The diagnosis becomes very challenging due to the gradual development of the disease with non-specific complaints. Aspergillus hyphae are characteristically septate and uniform in diameter and they have dichotomously 45°-angle branching (4). Our patient had isolated sphenoid sinus aspergilloma.

Reviewing the literature, it has been reported that, postnasal discharge, predominantly chronic nocturnal cough, non-specific headaches and even a change in the voice are the usual symptoms attributed to the sphenoidal aspergillomas (1, 2, 3). Our patient presented with only blood stained nasal discharge and occasional bloodstained postnasal drip making the clinical diagnosis all the more confusing. The importance of CT scans as a diagnostic tool in fungal sinus disease is established, by this case, which has already been recognized in the literature (5,6). Sphenoidal aspergillomas can present as homogenous as well as heterogeneous opacity or as pseudotumors with or without bone lysis (3). The distinction between non-invasive and slowly invasive aspergillomas is not very clear (7).

The treatment of fungal sinus infection depends upon whether it has invaded into mucosa, bone or adjacent tissues and the immune status of the patient. Adequate surgical debridement is enough for fungus balls as was done in our case but if the organism is found in sinus mucosa also, oral antifungals, like itraconazole should be added. Extensive bone invasion may require adjunctive injectable antifungal therapy along with surgery (1, 2)

CONCLUSION

We are reporting this case to highlight that, though a rare entity, aspergillosis should be kept in mind in cases of

chronic sinusitis with non-specific symptomatology, unresponsive to usual conservative therapy even in immunocompetent patients. CT Scan of the paranasal sinuses can very well establish the site of the disease and the histopathology establishing the diagnosis. Histopathological examination should also include the sinus mucosa even if it is just hypertrophied mucosa. Surgical debridement along with oral antifungals should be given if mucosa is involved otherwise good surgical debridement for adequate ventilation of the sinus is enough for fungus balls as was done in our case.

CORRESPONDENCE TO

Dr. Sandeep Bansal Senior Research Associate Department of ENT Postgraduate Institute of Medical Education and Research Tel-Office +91(172)-2747585,Extn.6760 Resi – 91(172)-2776052,09814201253 E-mail: drsandeepb@rediffmail.com

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Author Information

Ashok Gupta, MS, MNAMS

Associate Professor, Department of Otolaryngology & Head and Neck Surgery, Postgraduate Institute of Medical Education and Research

Sandeep Bansal, MS

Senior Research Associate, Department of Otolaryngology & Head and Neck Surgery, Postgraduate Institute of Medical Education and Research

Pradipta, MS

Senior Resident, Department of Otolaryngology & Head and Neck Surgery, Postgraduate Institute of Medical Education and Research