43-year-old male electrician from Bangladesh was referred to the author (at ENT Clinic of the Iranian Hospital in Dubai, UAE), complaining of nasal obstruction and intermittent nasal bleeding for 3 months. The patient had no history of pain, nasal discharge, or any symptom to suggest a systemic illness. On examination, his vital signs and general physical findings were normal. Rhinoscopy showed a fragile, mobile, and nontender polypoid mass in the left nasal fossa, partially obstructing the nose. The color was red and its surface was studded with white small dots. The mass was attached to the septum and bled on contact. The nasal mucosa

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Accepted for publication: 4 May 2005
was hyperemic and swollen. The nasopharynx was normal. Figure 1 shows the endoscopic view of the nasal mass.

The results of routine laboratory tests were within normal limits. Coronal CT scan of the nose and paranasal sinuses revealed an irregular mass filling the left nasal cavity incompletely, but no evidence of bony erosion or extension to the neighboring structures (Figure 2).

Three biopsy specimens were obtained under local anesthesia. Histopathological examination of the nasal mass is shown in Figure 3.

Finally, complete surgical excision of the left nasal mass and cauterization of its base were performed under general anesthesia. The intraoperative hemorrhage was negligible. Figure 4 shows the totally excised nasal mass.

What is Your Diagnosis?
See the page 85 for the diagnosis.
Rhinopneumoniosis is a chronic disease caused by a fungus-like microorganism, known as *Rhinosporidium seeberi*. Histopathologically, round submucosal cysts containing spores are formed. They are called sporangia.1–4 The sporangia are diagnostic (as shown in Figure 3). Nasal mucosa is involved in 72% of the cases.5 The nasal lesion presents as a painless polypoid mass with a dull pink or red color. Epistaxis and nasal obstruction are the most common findings. It may be unilateral or bilateral. The enlargement of these lesions occurs slowly over months or years.6–8 Rhinopneumoniosis mainly occurs in India and Sri Lanka as an endemic disease, but sporadic cases from other parts of the world have also been reported. It has been reported from the USA, Canada, Russia, Scotland, England, Italy, Brazil, Cuba, Mexico, Argentina, Paraguay, Ecuador, Africa, Indonesia, Malaysia, Philippines, Japan, as well as Iran 1,2,4,5,9

Rhinopneumoniosis is most often seen in young males, but it may be found at any age from 3 to 90 years in both sexes.10 The mode of infection is not clear, but immersion in contaminated waters in Asia and Africa and dusts from the dung of infected horses and cattle are mentioned as the possible responsible factors. Other sites in the body may be involved. Rhinopneumoniosis of the eye (conjunctiva and lacrimal sac), maxillary sinuses, nasopharynx, epiglottis, larynx, trachea, bronchus, ear, scalp, skin, urethra, and external genitalia are occasionally reported.1,4,5,11

Diagnosis is based on history and clinical findings as well as histopathologic investigations (round submucosal cysts containing spores are formed and typical sporangia are diagnostic) (Figure 3). Nasal smears may be helpful as a screening test in suspected cases. No culture media for isolation of *Rhinosporidium seeberi* are available. Immuno-histochemical and electron-microscopic studies have also been done.1,4,5,12

The treatment of choice is surgery. The best method is wide excision. The base of lesions must be cauterized to prevent recurrence of rhinopneumoniosis. Dapsone and amphotericin have also been used, but with no benefit. Excessive bleeding, secondary bacterial infection, and fatal sepsis are mentioned as the complications of treatment.1,4,9,10

**Acknowledgment**

Author would like to thank Dr. Z. Fadavi, pathologist, for the histopathological diagnosis of this case and preparing its photograph.

**References**