Case report: Primary laryngeal cryptococcosis in an immunocompetent person

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Statement of the Problem/Background: *Cryptococcus sp* is encapsulated yeast, found in the environment and bird excrement. Cryptococcal infections are uncommon in immunocompetent patients and Primary Laryngeal cryptococcosis is a rare condition. Inhaled corticosteroid use is the most common predisposing factor, causing localized immunosuppression and disruption of laryngeal mucosal barrier. We present here a case of Primary Laryngeal Cryptococcosis in a patient on prolonged inhaled steroids.

Case discussion/report: A 71 year's old male, known case of hypertension and asthma presented with complaints of hoarseness of voice for 5 months, progressively increasing, painless and ultimately leading to aphonia. He was taking inhaled corticosteroids for last 15 years. Physical examination showed no swelling or enlarged lymph nodes in the neck and oropharynx was also normal on gross examination. Patient was evaluated with fibreoptic laryngoscopy (FOL) which showed bilateral irregular thickened, swollen vocal cords with granulation tissue. Histopathology showed: Rounded narrow based budding yeast with thick capsule on PASD stain suggestive of Cryptococcus. HIV serology was negative. Serum cryptococcal antigen titers were raised (1:4). Patient was started on oral Fluconazole 400 mg once daily. Dose of inhaled steroids was reduced. Patient responded to the treatment with improvement in his voice after 4 weeks and cryptococcal antigen titers were reduced to 1:1. No neurological involvement was found on further investigations.

Conclusion: Use of inhaled steroids for prolonged periods is a significant risk factor for laryngeal cryptococcal infection. Fiberoptic larnygoscopy and histopathological examination with appropriate staining enables accurate diagnosis. Treatment with oral antifungal agents, most commonly high dose oral fluconazole is shown to be effective. Prolonged duration with minimum of 6-8 weeks is generally required. Surgical treatment may be necessary if indicated. No guidelines exist in literature whether these patients should be followed clinically or with repeat FOL to document resolution of lesions.

Biography

Beenish Syed is an Infectious Disease specialist based in Karachi, Pakistan. She did her post-graduate training in Internal Medicine (FCPS) in 2014 and then in Infectious Diseases (FCPS) in 2017. She is currently working as Assistant Professor and Infectious Diseases Consultant at Liaquat National Hospital, Karachi, one of the leading undergraduate and post-graduate training institutes in Karachi, Pakistan. She is an integral part of Infection Control and Antimicrobial Stewardship committee at her institute.

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