

Difficult Intubation in a Case of Recurrent Rhinosporidiosis with a Huge Oral Mass.

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Submitted: 05-02-2022

Accepted: 18-02-2022

ABSTRACT: Rhinosporidiosis caused by *Rhinosporidium seebri* is a fungal infection, which affects the membrane of nasopharynx, oropharynx, larynx, rectum and external genitalia. Rhinosporidiosis is type of nasal polypoidal growth arising from the mucosa of nasal cavity and often involving upper and lower airway. Occasionally, this growth may cause lower airway obstruction. The clinical presentation of such cases is often antithetical and airway Management during induction of anesthesia requires caution to prevent life threatening situation. Diagnosis is mainly by clinical observation and is confirmed by histopathology. We report atypical case of Recurrent Rhinosporidiosis that presented as an oropharyngeal mass with upper airway obstruction. Clinical Significance physicians should be diligent in evaluating patient with rhinosporidiosis and look for signs of airway obstruction.

Keywords: Airway Management, Naso-pharyngeal rhinosporidiosis, oropharyngeal mass, Rhinosporidiosis seebri.

I. INTRODUCTION:

Rhinosporidiosis is a chronic Granulomatous infection of the mucous membrane that usually manifests as vascular friable polyps that arises from the nasal mucosa, often involving to nasopharynx and upper airway and rarely may involve lower airways^[2]. Rhinosporidiosis is characterized by a reddish, crisp, polypoidal, hyperplastic mass. It is a worldwide disease of human, frequently seen in Hot tropical climate of endemic zone like India, Srilanka, parts of America and also encountered among migrant population in West The latter Scenario can lead to Significant airway Management challenge.

II. CASE REPORT:

A 70 year old male patient has been came to the out patient Department (OPD) at our hospital with chief complaints of foreign Body sensation in mouth, Difficulty in swallowing and Noisy breathing since two years. Upon enquiry the patient revealed to have a Dysphagia, difficulty in breathing in Supine Position and occasionally choking sensation on deep inspiration [Figure 1]. He was unable to lie on supine position and used to adopt lateral position while sleeping.

On examination, Oral cavity was occupied with oral mass and right nostril was found majorly blocked with the polypoidal growth [Figure 1]. The patient was scheduled for a endoscopic oral mass excision with FESS surgery, under General Anesthesia. In the Operating room, awake Fiber Optic bronchoscope - guided Nasotracheal intubation was planned and anesthesia team was ready for tracheostomy in case of any difficulty. A decision was, therefore taken to execute Nasotracheal intubation and airway was anaesthetized by nebulization with 4% lignocaine, Nasotracheal Intubation was successfully performed in a Fowler's position General Anesthesia was induced intravenously, Glycopyrolate 0.005 mg/kg, Fentanyl 2mg/kg, Propofol 2mg/kg and Maintained with N₂O/ O₂ and Isoflurane. The fleshy mass was removed gradually [Figure 3]. Intraoperative blood loss was standard which was managed with intravenous fluids. After excision of the growth, there were raw areas on some regions. Anterior and posterior nasal packing was Done to control oozing from the raw surfaces, After reversal of anesthesia patient was extubated well and patient was shifted to the postoperative care with spontaneous respiration.



Figure 1 :Rhinosporidiosis in the Oropharynx



Figure 2: Polypoidal Growth in the right nostrils.



Figure 2: Excised Rhinosporidiosis Mass.

III. DISCUSSION:

In the present case, the patient has unusual presentation of dysphagia and breathing difficulty especially in supine position, which was indicative of possible airway involvement by the mass causing obstruction. The anaesthetic challenges in our case were the difficulty in securing the airway and the risk of bleeding from the polyp during airway manipulation. Therefore, awake Flexible Fiber Optic-Guided nasotracheal intubation was planned with emergency tracheostomy as standby. However, a preoperative check endoscopy of airway revealed a mass of significant size present in the oropharynx, which refrained us from going for awake nasotracheal intubation. Even the option of tracheostomy was difficult in our case, as the patient was unable to lie supine for a long duration.

In this case, there was difficulty in mask ventilation due to collapse and obstruction of the airway by the polyp after administration of muscle

relaxant during induction of anaesthesia and nasotracheal intubation was finally done using Fiber Optic Bronchoscope by manipulating the bronchoscope around the growth^[4]. However, there is always the risk of failed intubation in such scenarios. Therefore, it is always prudent to go for awake nasotracheal intubation or elective tracheostomy whenever there is a suspicion of airway involvement by the nasal polyp. Awake Fiber optic Bronchoscope-guided intubation was not an only option in this case, as the polyp in our case was a large friable rhinosporidiosis, which is known to be highly vascular. Any uncontrolled airway manipulation around the mass would have caused trauma to the growth, which not only would have led to massive bleeding and pulmonary aspiration but also may have caused spillage of endospores. The latter condition might cause autoinoculation into the lower airways, unintentionally contributing to recurrence.

It is mandatory to examine these patients thoroughly, as the initial impression of a normal-appearing airway may be misleading. In our case, the initial assessment did not reveal any mass at the posterior side. However, the history (breathing difficulty in supine position) was suggestive of airway obstruction. A thorough preoperative examination including a flexible endoscopy should be performed to evaluate the extent of the growth to avoid any judgmental errors in handling the airway.

IV. CONCLUSION:

Anaesthetic management of oral mass and rhinosporidiosis is challenging. Diligent history taking, meticulous examination, and review of investigations aid in appropriate decision making, minimizing judgmental errors, and preventing airway-related catastrophe.

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