INTRODUCTION

Stridor is an abnormal, high-pitched sound produced by turbulent airflow through a partially obstructed airway. It is a symptom that is greatly distressing and worrisome to the patient and physician alike, and an underlying cause must be determined. Stridor in adults is commonly due to abscesses or swelling of the upper airway, tumors, paralysis or malfunction of the vocal cords. The cause of stridor is usually obvious on investigations such as CT scanning or fibroptic bronchoscopy. However, in our case, when the above investigations failed to reveal an etiology, an exhaustive search for rare causes of stridor was required.

CASE REPORT

A 77-year-old female hypertensive and diabetic patient came with complaints of cough with purulent expectoration, shortness of breath (MMRC Grade II), and difficulty in swallowing since 2 days. She had long standing generalized weakness. She was, otherwise, in good general condition and vital signs were Pulse-80 beats/min, regular, BP-130/70 mmHg, RR-30/min, SpO₂-96% on room air and Temperature 98.4 degree F. She had mild pallor, and an audible inspiratory and expiratory stridor. All other systems were normal on examination.

Blood investigation showed low Hb counts (9.8 gms%), raised ESR (102 mm/hr), raised serum creatinine (2.01 mg/dl). Chest radiograph showed mild cardiomegaly with normal lung fields. Bronchoscopy and CT scan showed no intrabronchial obstruction, extraluminal compression of airway or other abnormalities.

We evaluated Serum Calcium, Phosphorus, PTH levels in view of age and long standing generalized weakness with non-specific complaints. Investigations revealed parathyroid hormone PTH-3.83 pg/ml(↓) [15-65 pg/ml], Serum Calcium-3.2 mg/dl (↓) [8.4-10.2 mg/dl], Sr. Phosphorus-11.8 mg/dl(↑) [2.4-4.5 mg/dl], SMg-1.6 mg/dl [1.5-2.5 mg/dl]. Serum Albumin and Vitamin D levels were normal. No nutritional, familial, congenital, infiltrative or autoimmune cause of hypoparathyroidism
Transient hypoparathyroidism with biochemical abnormalities is commonly seen (>83% of cases) after thyroid surgery.[3] However, our patient had no recent or remote history of thyroid/neck surgery or irradiation.

Congenital, genetic and hereditary, familial autoimmune, or infiltrative causes of parathyroidism may cause stridor in adults,[4] but rarely present in advanced ages which manifested earlier, and were unlikely in our patient in the absence of suggestive family history.

In absence of history of neck surgery, nutritional deficiency cannot be ruled out, especially in postmenopausal females in India. Severe hypocalcemia and hypomagnesemia resulting from malabsorbtion syndrome secondary to celiac disease in an elderly woman leading to laryngospasm has been reported.[5] However, nutritional deficiency hypocalcemia would likely be associated with secondary hyperparathyroidism and hypomagnesemia. Hypomagnesemia alone may also result in increased neuromuscular irritability and perioperative laryngospasm from hypomagnesemia, and secondary hypocalcemia in a diabetic patient has also been reported.[6] However, the magnesium level of our patient was normal.

Thus, in absence of usual causes of stridor and uninformative image ology, a high-index of suspicion for rare causes of laryngospasm in elderly proved helpful in guiding diagnosis and treatment. This case highlights hypoparathyroidism of idiopathic origin as a rare cause of stridor, which was completely reversible without complicated or invasive procedures and highly satisfying to patient and physician alike.

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