Scholars Journal of Medical Case Reports **ISSN 2347-6559 (Online)**
Sch J Med Case Rep 2017; 5(6):379-381 **ISSN 2347-9507 (Print)**

(An International Publisher for Academic and Scientific Resources) DOI: 10.36347/sjmcr.2017.v05i06.007

Monitored Anesthesia Care for Sarcoidosis Patient

Dr. Agrawal Preeti[1], Dr. Panwar Vishnu[2]
[1]Senior resident , MAMC Department- dept. of Anesthesiology and Intensive care, Maulana Azad Medical College, Delhi.
[2]Specialist, MAMC Department- dept. of Anesthesiology and Intensive care, Maulana Azad Medical College, Delhi.

***Corresponding author**
Dr. Panwar Vishnu
Email: preeti195@gmail.com

Abstract: We are presenting a case of respiratory sarcoidosis with severe restrictive lung disease with morbid obesity with diabetes, hypertension posted for cataract surgery under monitored anesthesia care. Although case was posted in monitored anesthesia care but it was labeled as ASA 3 with informed written high risk consent in view of severe restrictive lung disease with all preparation for general an aesthesia.
Keywords: Sarcoidosis, monitored anesthesia care

INTRODUCTION

Sarcoidosis is a granulomatous, multisystem disease more common in 20-40 years females [1] .Sarcoidosis results from an exaggerated cell mediated immune response which can involve any organ of body most commonly lungs, lymph nodes, skin, and liver.

It is mainly an interstitial lung disease which presents with dyspnea on exercise and dry cough with rales in the lung fields on examination [1]. Lung function tests show decrease lung volumes, decreased diffusing capacity and normal or increased ratio of FEV1/FVC [1]. During anesthesia high frequency, low tidal volume ventilation should be done. End bronchial sarcoidosis can produce distal atelectasiss. Unilateral pleural effusion can occur in 1-5% of cases [1].

Intra thoracic lymph adenopathy occurs in 75 to 90% of all patients mainly involving hilar and Para tracheal lymph nodes [1]. Nasal mucosal involvement occurs in 20% patients who present with nasal stuffiness. Patients with laryngeal involvement presents with hoarseness of voice, dyspnea, wheeze and strider. Laryngeal involvement and tracheal stenosis may interfere with passage of appropriate sized adult end tracheal tube [2, 3]. Stenosis are of trachea and bronchi as a result of sarcoidosis and symptomatic improvement following dilatation with Fogarty catheter has been described [4].

Myocardial sarcoidosis can occur in 5% of patients [1]. Symptoms of Papillary muscle dysfunction, pericarditis, Congestive heart failure , restrictive cardio sympathy, Arrhythmias , conduction disturbances ,heart block can occur[5,6]. Cases of sudden death with stable cardiac function also have been reported [6].

Nerve involvement can occur in 5% of patients. Seventh nerve involvement with unilateral facial paralysis is most common [2].

Sarcoidosis appears to be associated with increased risk for cancer in affected organs [7]. This may be secondary to immunological abnormalities associated with sarcoidosis [8,9]. Sarcoidosis may be improved or exacerbated by pregnancy [10].

The therapy of choice is gluco corticoids. Initial dose of prednisone is 20 to 40 mg /day for less than two years.

In conclusion it is prudent to be prepared for cardiac events, difficult intubation and respiratory compromise in patients with known sarcoidosis.

CASE REPORT

A 54 years lady known case of hypothyroidism and sarcoidosis posted for bilateral cataract surgery under monitored anesthesia care.

The patient presented to ophthalmologist for diminished vision. Ophthalmologist revealed bilateral uveitis on examination; she also gave history of night sweats and weight loss. On further evaluation diagnosed of pulmonary sarcoidosis was made on basis of meditational hilar lymph adenopathy in MRI with bilateral uveitis. She was treated with tab. prednisolone 60 mg OD for a year, which improved her symptoms. Later on she presented with symptoms of steroid toxicity like30 kg weight gain within one year, hypertension, diabetic and cataract so steroid dose was tapered and planned for cataract surgery.

Patient was on Tab.eltroxin 100µg OD, Tab. prednisolone 10 mg OD on alternate day , Tab. metformin 500 mg BD, Tab. amlodipine 5 mg BD .

On examination her weight was 120 kg with BMI of 37 Kg/m^2.Blood pressure was 130/80 mmHg in supine position, 120/76 in standing position and heart rate 68/minute, regular.

On airway examination Mallampatti Class 3 with Short neck. Neck circumference was 39 cms with normal range of neck movement, prayer sign was negative.

On auscultation bilaterally decreased air entry all over lung fields with no added sounds. Breath holding time after deep and maximal inspiration was less than 15 sec. H/o snoring during sleep present. No H/o hoarseness of voice, postural hypotension, sync opal attacks and chest pain was present so tracheal and cardiac involvement was unlikely. All other systems were grossly normal.

All Hematological & biochemical investigations were within normal limits with blood sugar HbA1 6.2% and TSH 3.6mIU/L. Chest X-ray PA view showed meditational widening. CT scan of chest showed meditational hilar lymph adenopathy with inter lobar thickening. Pulmonary function tests showed severe restrictive lung disease with FEV1 53% of predicted, FVC 47% of predicted. ABG was within normal limit except $Pao_2$73 on room air. ECG showed sinus rhythm with a heart rate of 70/minutes. Echocardiograph showed ejection fraction 60 %, grade1 diastolic dysfunction. Cardiac and tracheal involvement was ruled out with help of echocardiography and CT chest.

Our main challenge was that the patient has to be operated under monitored anesthesia care with peribulbar block but she was not able to lie down supine because of respiratory distress, and due to multiple systemic diseases we are reluctant to give general anesthesia to the patient. Patient was counseled several times in preoperative evaluation for lying down supine with head elevation and monitoring of oxygen saturation and heart rate. The process was repeated 4 -5 times in front of us so that slowly patient acclimatized for supine position. The oxygen saturation did not fall beyond 95% on oxygen during practice session.

Patient was advised to continue Tab. amlodipine 5 mg, Tab. prednisolone 10 mg andTab. eltroxin 100µg and Tab. pantoprazole 40 mg on morning of surgery.

Patient was taken in Operation Theater with informed, written high risk consent. Morning blood sugar was 140 mg/dl and serum electrolytes were normal. Patient was labeled as ASA 3 with low risk surgery. All routine monitors applied. Preparation was done for dealing any difficult situation like desideration and Cardiac arrest in intra operative period.

In view of patient's morbid obesity and to make her comfortable her head was elevated around 25 degree with help of putting pillows beneath her shoulder and head like a RAMP(rapid airway management position).Oxygen via nasal prongs at3-4L/min was insufflated. 20 G intravenous cannula was taken and normal saline started. Inj. Hydrocortisone intravenous 100and Inj Midazolam 1mg IV mg intravenously was given. Per bulbar block was given by ophthalmologist. After confirmation of adequate analgesia and akinesia of eye, surgery started. Vital parameters (heart rate, BP, ECG, SpO_2, $ETCO_2$) were all kept stable and maintained throughout the surgical procedure . The post operative period was uneventful.

DISCUSSION

In our case, patient was a high risk for anesthesia with low risk surgery posted under monitored anesthesia care. As the patient was obese with respiratory compromised due to sarcoidosis our first concern was to maintain adequate oxygen saturation and a comfortable supine position for her. We achieved it with repeated efforts and counseling made in preoperative periods and that helped us in intra operative periods. As preoperative guidelines of MAC are same as that of general anesthesia so case was taken with high risk consent under ASA 3 category.

In this case report we emphasize on preoperative counseling and putting the patient in optimum position for multiple times with monitoring which helps in maintaining spontaneous respiration during actual operative procedure and be prepare for dealing all adverse possibilities.

REFERENCES

1. Crystal GC. "Sarcoidosis" In: Denis LK, Antony SF, Logo DL, Braunwald E, Hausen LS, Jameson JL, editors. 16th Eds . vol 2. New York: McGraw Hill Medical Publishing Division; pp. 2017–2023. Harrison's Principles of Internal Medicine.
2. Vagada H. Facial paresis after general an aesthesia-report of an unusual case. Anaesthesiology.1986;64:513–
3. Kataoka M, Nakata Y, Hioka T, Hosoya S, Shiomi K, Nishizaki H, Morishita R, Ono Y, Ohnoshi T, Kimura I. Malignancies in patients with sarcoidosis. Nihon Kyobu Shikkan Gakkai Zasshi. 1992; 30(4):598–603.
4. Fouty B W, Pomeranz M, Thigpen T P, Martin R J. Dilatation of Bronchial Stenos is due to sarcoidosis using flexible fiber optic bronchoscope. Chest . 1994; 106(30):677–80.
5. Iwashita h, Matsukawa T, Ookawa I, Iijima T, Sato I, Kumazawa T. An aesthetic management of a

patient with cardiac sarcoidosis. Masui. 1995; 44(12):1692–4.
6. Thomas DW, Mason RA. Complete Heart Block in a patient with sarcoidosis. Anaesthesia. 1988;43(7):S78–80
7. Johan Ask ling, Johan Grunewald, Anders Eklund, Gunnar Hillerdal, Anders Ekbom. Increased risk for cancer following sarcoidosis. Am J Respir Care Med. 1999;160(5):1668–1672.
8. Whittington R, Lazarus A, Nerenstone S, Martin A. Sarcoidosis developing during therapy for breast cancer. Chest. 1986; 89 S:762, 3.
9. Suen J S, Forse M S, Hyland R H, Chan C K. The malignancy sarcoidosis syndrome. Chest . 1990; 98 S:1300–
10. Euliano T Y, White S E, Aleixo L. Sarcoidosis in a pregnant woman. J Clin Anesth. 1997;1:78–86.