



## Unusual cause of Intractable Hiccups - A case report

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### ABSTRACT

A case of persistent hiccups was resolved when an active tuberculosis infection was treated. A 61 year old male patient presented with intractable hiccups, vomiting, breathlessness and cough for 3 months. His HRCT THORAX and XRAY showed thick walled cavitory lesions in the right upper lobe. Acid fast bacilli smear tested positive - Grade 2 and he was started on anti-tubercular therapy following which his hiccups, that lasted for months, improved. He was discharged in a stable condition

### INTRODUCTION

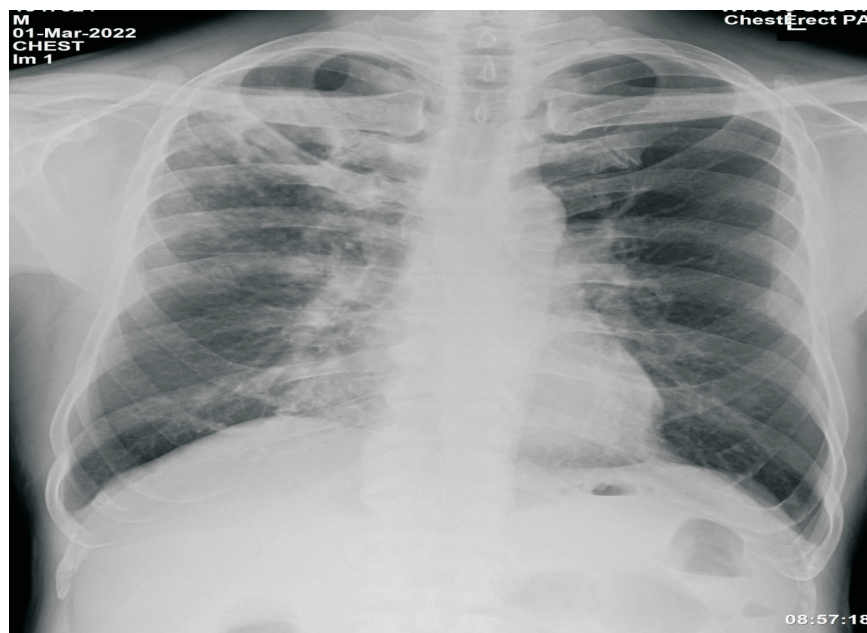
Hiccups (also known medically as "singultus") are involuntary contractions of the diaphragm, an important muscle involved in breathing. Each of these contractions is followed by a sudden closure of vocal cords, producing the characteristic "hic" sound. They may occur as a single episode or in bouts. Most hiccups are self limiting and do not require medical management. Hiccups that last for long periods of time may be due to damage of the vagus or phrenic nerve. A hiccup attack lasting more than 48 hours may be considered as chronic hiccup [1]. These should be investigated thoroughly to find the underlying pathological cause. Hiccups that last for longer than 2 months are known as intractable hiccups [2]. Some of the common causes of hiccups include stress, use of carbonated drinks and certain food habits like eating quickly, consumption of hot and spicy food or gas formation in the stomach. Though rare, a few cases of hiccups due to tuberculosis have been reported. In most of the cases, hiccups do not require medical management. But, if left untreated for long periods of

time, they may cause complications such as stress, fatigue, physical exhaustion or loss of sleep. Chlorpromazine is the first line agent for treatment of persistent hiccups and is FDA approved for the same.

### CASE REPORT

A 61 year old male patient, who is a known case of type 2 DM (on T METFORMIN 500 mg BD), was admitted on 25/2/22 with complaints of intractable hiccups, vomiting, cough and breathlessness for 3 months. He is a chronic smoker (more than 2 packets per day) as well as a chronic alcoholic for more than 30 years. The patient visited many doctors in search of a cure for his condition and tried all of the medications suggested, before presenting to the neurology department, where he was initially admitted. MRI BRAIN was normal, following which CT imaging of thorax was conducted.

CT imaging of thorax showed thick walled cavitory lesions in the right upper lobe posterior segment with surrounding ground glassing. Patchy subsegmental consolidation and centrilobular



**Fig. 1 :** Chest X-Ray : March 1st ,2022

tree in bud nodules in right upper lobe apical, posterior and anterior segment and in right middle lobe medial segment was noted. Bilateral upper lobe and apical paraseptal emphysematous changes were present.

The patient was then transferred to the pulmonology department. He developed dysphagia for which endoscopy was done. The results showed esophageal candidiasis for which he was prescribed Tab.ITRACONAZOLE 100 mg BD.

His sputum evaluation showed acid fast bacilli smear positive -Grade 2 .Antitubercular therapy was started on a weight basis.

His vitals were stable throughout hospital stay. His hiccups

stopped completely two days after initiation of antitubercular therapy . He was discharged on 5/3/22 in a stable condition with the advice to consult the OP department. Patient was followed up in pulmonology OPD and showed good clearance of right upper zone lesion in the follow up chest X-ray and he had no recurrence of hiccups.

## DISCUSSION

Hiccups occur due to synchronous contraction of the intercostal and diaphragmatic muscles which is then followed by laryngeal closure. The classic sound of hiccups is produced by air rushing into the lungs which is caused by a reflex arc consisting of the brainstem, vagal and phrenic nerves. Hiccups are usually self-



**Fig. 2 :** Chest X-Rray : June 6th, 2022

limiting, however intractable hiccups can lead to some complications. Hiccups may occur due to a wide range of causes.

Only a few cases have been reported of hiccups being caused due to TB. “An unusual cause of hiccups”[1], a case report by S Perry et al, is one such case in which a 52 year old male patient presented with a history of hiccups for five days along with weight loss, haemoptysis and night sweats. He had a history of tuberculosis when he was a young adult and he was a smoker as well as an intermittent alcoholic. His chest Xray showed irregular cavitating opacities in the left upper lobe along with lymphadenopathy. His sputum tested positive following which he was started on anti-tubercular therapy. Another report entitled “two cases of intractable hiccups by TB” discusses two cases- the first was a case of a 92 year old male patient with hiccups, weight loss, dyspnea and cough [3]. His CT thorax and bronchoscopy showed a mass in the left lower lobe. Three sputum cultures tested positive for TB. The second case was a 41 year old male with intractable hiccups, cough, weight loss and swollen right anterior cervical lymph node. Biopsy of the lymph node showed necrotizing granulomas and grew M tuberculosis. Hiccups as a result of TB may be caused due to stimulation of the phrenic nerve resulting in stimulation of the reflex arc[3]. Hiccups due to TB do not usually require any special management and resolve once anti-tubercular therapy is started.

In the case presented above, the patient had hiccups (along with other symptoms) for about 3 months and he visited multiple doctors for the same. Tuberculosis presenting with hiccups is rare. This may have been the reason for the delay in diagnosing tuberculosis as the root cause of his hiccups. The cavitary lesions seen in the CT scan helped in suspecting TB as the root cause of his hiccups. According to WHO, 1.5 million deaths occurred due to TB in 2020 and is the 13th most common cause of death[4]. In a country like India which contributes to a large share of global TB burden, healthcare providers should acknowledge the fact that TB can present with atypical symptoms like hiccups and should look out for such symptoms. If the patient has chronic hiccups that cannot be attributed to any of the common causes, TB must be considered. Since only a few cases of hiccups due to TB have been reported, further investigations may be required to establish the actual relationship between the two.

## CONCLUSION

Chronic hiccups may be the only symptoms shown by tuberculosis in some patients in the early stage of disease so chronic hiccups need to be evaluated thoroughly to find out the reason for the same. As the delay in initiation of treatment for Tuberculosis might invite the development of multidrug resistant strains of tuberculosis patients with chronic hiccups need to be evaluated for tuberculosis.

## REFERENCES

1. Perry S, Stevenson J. An unusual cause of hiccups. *Emergency Medicine Journal* [Internet]. 1996;13(5):361-362. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1342780/>
2. Hiccups: Causes, treatments, and complications [Internet]. *Medicalnewstoday.com*. 2022 [cited 16 October 2022]. Available from: <https://www.medicalnewstoday.com/articles/181573>
3. MODI R, LENOX R. TWO CASES OF INTRACTABLE HICCUPS CAUSED BY TB. *Chest* [Internet]. 2018; 154(4):154A. Available from: [https://journal.chestnet.org/article/S0012-3692\(18\)31330-8/fulltext#:~:text=DISCUSSION%3A%20Intractable%20hiccups%20are%20an,infected%20lung%20and%20pleural%20tissue.](https://journal.chestnet.org/article/S0012-3692(18)31330-8/fulltext#:~:text=DISCUSSION%3A%20Intractable%20hiccups%20are%20an,infected%20lung%20and%20pleural%20tissue.)
4. Tuberculosis (TB) [Internet]. *Who.int*. 2022 [cited 16 October 2022]. Available from: <https://www.who.int/news-room/fact-sheets/detail/tuberculosis>



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