

## Intractable hiccups: How can chest X-ray help?

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### ABSTRACT

We describe the case of a young male presenting with hiccups refractory to antacids. Due to high index of suspicion was evaluated with a chest X-ray which revealed pericardial effusion. The effusion was drained, and the hiccups resolved. It is a teaching moment, to consider simple imaging, i.e., chest X-ray in patients with refractory hiccups to rule out more serious underlying causes.

**Keywords:** Chest X-ray, hiccups, pericardial effusion

### Introduction

Hiccups are involuntary and spasmodic diaphragmatic contractions leading to sudden inspiration followed by abrupt glottis closure.<sup>[1]</sup> Episodes lasting under 48 hours are typically benign and are terminated by breath holding/Valsalva maneuver. Those lasting over 48 hours require thorough evaluation and treatment accordingly.<sup>[2]</sup>

We describe through the case report the importance of X-ray chest to evaluate intractable hiccough, whenever hiccough is encountered in clinical practice.<sup>[2]</sup> This case report highlights the importance of simple imaging (X-ray chest) in evaluation of hiccough to rule out serious underlying cause.

### Case Report

A 22-year-old male patient with no known comorbidities presented to us with the complaints of recurrent refractory hiccups of over one month. He also complaint of chest uneasiness for the last 10 days. He underwent a gastroscopy

revealing fundal gastritis. He was treated proton pump inhibitors but did not show any improvement. Physical examination was unremarkable. In view of chest uneasiness, we ordered a chest X-ray to rule out any suprahepatic collection or a space-occupying lesion irritating the phrenic nerve. Chest X-ray revealed a globular enlargement of the heart with clearly delineated cardiac borders giving a water bottle configuration or money bag sign [Figure 1]. 2D echocardiography revealed massive circumferential pericardial effusion without tamponade physiology. Beck's triad was absent. Pericardiocentesis was done, and 700 ml of straw colored fluid was withdrawn. The fluid cytology revealed a chronic inflammatory (lymphocytic) pathology. Pericardial fluid LDH was 1132 IU/L, and pericardial fluid amylase was 104 U/L. Hb was 12.3 g/dl, and TLC was 10,700/ $\mu$ l (neutrophils were 79%, lymphocytes were 14%, eosinophils were 4%, monocytes were 3%, and basophils were 0%). Serum TSH was 1.62  $\mu$ IU/ml. Pericardial fluid CBNAAT was positive. The patient was started on ATT and steroids. Upon pericardiocentesis, his hiccups resolved and did not recur.

The consent of family member and patient has been taken for publishing this case report.

### Discussion

Hiccup is a common complaint among patients in the outpatient

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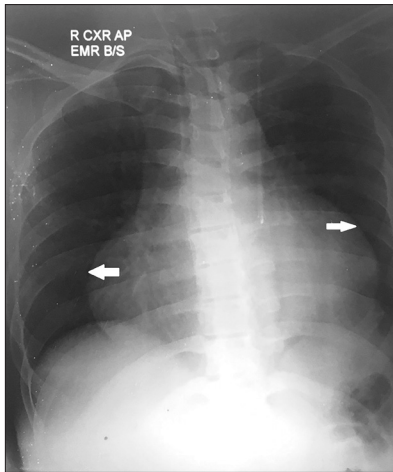
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**Figure 1:** Chest X-ray showing globular enlargement of the heart. (Arrow). LDH = Lactate dehydrogenase, Hb = Hemoglobin, TLC = Total leukocyte count, CBNAAT = Cartridge-based nucleic acid amplification test

department. Most cases are successfully managed with physical maneuvers or antacids.<sup>[2]</sup> However, this case report highlights the importance of considering screening for more serious underlying causes. Early detection and prompt intervention can prevent serious consequences and complications. Some serious causes of persistent and intractable hiccups that need to be screened upon presentation include stroke, encephalitis, periaortic carcinoma, hyponatremia, thoracic neoplasms, myocardial ischemia, pericardial effusion, and subphrenic abscess.<sup>[1-8]</sup> Chest X-ray is a simple, easily available, and cost-effective modality to evaluate intractable hiccough for thoracic etiology.

This case reiterates the importance of chest X-ray whenever intractable hiccough is encountered in clinical practice.

## Conclusion

In evaluation of intractable hiccough, chest X-ray is a simple, easily available, and cost-effective modality as it easily rules out serious underlying thoracic causes.

## Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient (s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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## Conflicts of interest

There are no conflicts of interest.

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