

# Recurrent syncope while eating: an unusual presentation of a diaphragmatic hernia

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## DESCRIPTION

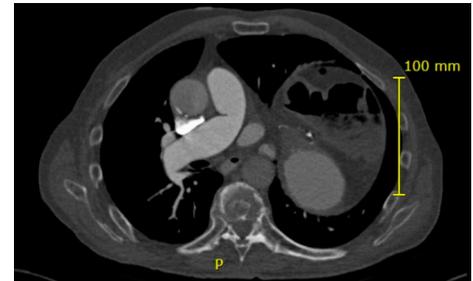
A male patient with dementia, benign prostatic hyperplasia and chronic hepatitis C presented with a several month history of syncope while eating.

The ECG, echocardiogram, electroencephalogram, brain CT and carotid ultrasound were unrevealing. The chest and abdominal radiographs showed a possible eventration or herniation of the left hemidiaphragm ([figure 1](#)). The chest CT revealed a large left-sided Bochdalek hernia with the stomach and colon herniated into the thorax ([figure 2](#)). The patient was managed conservatively with adjustment of meal size and discharged to an assisted living facility. To the best of our knowledge, the patient had no recurrent episodes of syncope.

Bochdalek hernia is a congenital diaphragmatic hernia, typically discovered in infancy. In adults, it is rare and usually discovered incidentally.<sup>1</sup> When symptomatic, the most common complaint is pain.<sup>2</sup> On rare occasions, the diaphragmatic hernia can manifest as syncope or presyncope while dining.<sup>3,4</sup> A recent review of the literature revealed 19 cases of hernia induced syncope.<sup>5</sup> When the syncope is associated with eating it is also known as deglutition syncope. This type of syncope is thought to occur due to a vagal reflex during swallowing that causes inhibition of the normal cardiac conduction system. It is also associated with severe peripheral vasodilatation, bradycardia and hypotension.<sup>6</sup> Large hernias may also cause left atrial and left ventricular compression and reduced right ventricular outflow tract diameter.<sup>7</sup> In these cases, the syncope occurs as a result of the underfilling of the left atrium from stomach distension while eating.<sup>8</sup> When surgical intervention and correction of the defect is not possible, a smaller meal size may improve the symptoms.<sup>5</sup>



**Figure 1** Chest X-ray showing herniation of the left hemidiaphragm.



**Figure 2** CT scan of the chest with a large left-sided Bochdalek hernia showing the stomach and colon herniated into the thorax.

## Learning points

- ▶ Bochdalek hernias (congenital diaphragmatic hernias) may present as syncope or presyncope while eating.
- ▶ When surgical correction of the hernia is not possible, decreasing meal size can improve symptoms of prandial syncope.

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