

Chronic hiccup

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Abstract

Chronic hiccup is a rare disorder (approximately 1 case per 100,000 subjects) causing repeated inspiratory spasms over periods of 48 hours or more. Some patients are affected by persistent hiccups for days or even weeks, alternating with periods of remission. There are many known causes, among which the most prominent is esophagitis due to gastroesophageal reflux. The best treatment is etiologic. Hiccup associated with gastroesophageal reflux should be treated with antacids and especially inhibitors of the proton pump, which are remarkably effective in most of cases. Surgery may be required to treat the reflux. In any case, close monitoring of the esophagus is recommended. If hiccup has other causes, in particular in association with the central nervous system, Baclofen appears to be the treatment of choice. Ideally patients should be managed by multidisciplinary teams with experience in complex cases caused by thoracic and neurological pathologies.

Keywords

Hiccup, esophagus, esophagitis.

Definition / Diagnosis criteria

Hiccup is a physiological reflex involving the respiratory muscles. After a vigorous inspiratory burst occurs an abrupt closure of the larynx, hence the characteristic sound which has inspired the name "hiccup" in many languages around the world. Hiccup is a normal reflex originating in the vagus territory. The main afferences include the stomach, esophagus and pharynx; but the peritoneum, skin, pleura, and other remote organs may also play a secondary role. The existence of a "hiccup center" in the brain has been debated but never proved. The

afferences are essentially the inspiratory muscles and the pharyngo-larynx.

When the single hiccup becomes repetitive, it can be brief (less than 48 h) and is called "acute hiccup" (a frequent benign condition). When it lasts more than 48 hours it corresponds to "chronic hiccup" (a rare disease).

Hiccup is easily recognized since everyone has experienced it and seen other person hiccuping.

Differential diagnosis / Excluded diseases

Grunting, eructations, nausea, vomiting, somatoform disorders, tics and other respiratory

dyskinesias should be excluded by clinical means.

Frequency

Single hiccups occur normally on average once every day in each normal subject. Acute hiccup occur at least once in the lifetime in everyone, especially when the stomach is distended or the esophagus is exposed to reflux. The chronic hiccup is more rare and occurs approximately in 1:100,000 subjects.

Clinical description

Acute hiccup can be painful or anxiogenic but is generally benign and subsides spontaneously in a few hours. Chronic hiccup is long lasting, rebel to drugs and associated with underlying pathological conditions. It can be associated with respiratory blockades (episodes of acute respiratory muscle inhibition allowing no air entry in the lungs for ten to thirty seconds). Sleep apnea are sometimes associated too.

Management including treatment

Gastroesophageal reflux should be evaluated and treated first since it is the main condition underlying acute and chronic hiccup. Upper digestive endoscopy may reveal other esophageal diseases (candidosis, cancer, etc). If the examination is negative, the clinical investigator should search for other diseases susceptible of giving rise to hiccup, including abdominal infections, inflammations or tumors (echography and computed tomography (CT) scan can be useful), diseases of the chest, notably the pleura and mediastinum, head, neck, and central nervous system diseases (especially the brainstem). The sole efficacious treatment is the etiologic one; for example, Omeprazole (20 mg/day) for peptic esophagitis. In the non-esophageal chronic hiccup, Baclofen (5 to 75

mg/day) has been successfully used and should be preferred to neuroleptics.

Etiology

Esophagitis (inflammation of the esophagus) is the main cause of chronic hiccup.

Diagnostic methods

Upper digestive endoscopy can be coupled with manometry and pH metry to reveal esophageal dysfunction. In non-esophageal cases, CT scan of the abdomen, thorax, head and neck may be useful. In some cases magnetic resonance studies of the brain have been useful too. Other diagnostic means should be discussed according to individual situations.

Unresolved questions

How to sedate chronic rebel hiccup with no demonstrable cause?

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