



## Use of Chicory (*Cichorium intybus* L.) Root for the Treatment of Intractable Hiccups

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### Abstract

Although hiccups may be a temporary action which need no treatment, sometimes a refractory hiccup would be disturbing to a normal life. In such cases, an underlying etiology is often present, and may be overlooked. One the important etiology claimed in Iranian traditional medicine for intractable hiccups is liver diseases. In this study, management of intractable hiccups by chicory in two cases with the liver obstruction has been presented.

**Keywords:** Hiccups, Chicory, *Cichorium intybus*, Liver Obstruction, Traditional Medicine

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### 1. INTRODUCTION

Hiccups are the result of an involuntary, intermittent spasmodic contraction of the diaphragm and the inspiratory intercostal muscles. Although hiccups may be a temporary action which need no treatment,

sometimes a refractory hiccup would be disturbing to a normal life [1]. According to Iranian traditional medicine, intractable hiccups may occur due to different causes, one of which is liver obstruction [2]. In this study, management of intractable hiccups by chicory in two cases with liver obstruction has been presented.

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## 2. CASE REPORT

We experienced the successful use of chicory to cure two cases of hiccups caused by liver obstruction and inflammation. The first case was a 78-year-old male with 2 years of refractory and chronic hiccup, who was under a common drug treatment. Due to his refusal in using the drugs (chlorpromazine and metoclopramide) because of their side effects, his hiccups were continuous and loud enough to disturb his sleep and eating routines. It also was so severe that made him depressed. Other symptoms included pains and heaviness in right upper quadrant. Based on Iranian traditional medicine, these two symptoms are pathognomonic of liver obstruction. Chicory root was administered to this patient in the form of syrup (containing 10% of dried aqueous extract of root) for 3 weeks before breakfast. In the middle of the 2<sup>nd</sup> week, his problem was slighter so that it was completely gone by the end of the 3<sup>rd</sup> week. The subject was under control for 6 months. The problem appeared again at the end of the 3<sup>rd</sup> months, so we started the same treatment. By the end of the 6<sup>th</sup> months, he never complained.

The other patient was a 54-year-old male with an intermittent hiccup, which occurred almost every day, worsening lately. Other symptoms were pain and heaviness in right upper quadrant. He had been under medical treatment (chlorpromazine); however, his hiccups were not completely cured. The same treatment was prescribed to him in 3 weeks and after the 2<sup>nd</sup> week, the hiccup was resolved and no relapse was seen within 6 months of follow-up.

## 3. DISCUSSION

Etiology is not pretty clear. As far as it is known hiccups are caused by various factors

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such as neurologic or non-neurologic agents, cerebral tumors, prostate cancer, abdomen surgery, myocardial infarction, hepatitis, gastritis, duodenitis, esophageal reflux, peptic ulcer, and esophagitis [1]. To cure a hiccup, in the allopathic medicine metoclopramide, chlorpromazine, baclofen, gabapentin, phrenic nerve neurolysis, and nerve blocks are used. The best result was obtained using Gabapentin in acute cases [3], [4]. Among complementary and alternative therapies acupuncture has been successfully used for intractable hiccups [5].

According to Iranian traditional medicine, intractable hiccups may occur due to different causes, one of which is liver obstruction [2].

Chicory with a scientific name of *Cichorium intybus* L. belongs to the family composite. Different pharmacological properties have been attributed to *C. intybus* including antioxidant, antidiabetic, gastroprotective, anti-inflammatory, analgesic, and anti-tumor as well as hepatoprotective activity [6]. Its beneficial effects in hepatic disorders have been introduced in traditional and folklore medicine of different countries [7], [8], [9], [10]. Avicenna, a great scientist from Persia, introduced chicory as the best plant for liver [2].

Considering the weak effects of chemical drugs on the treatment of refractory hiccups and their side effects, chicory which was also proved useful in this study with no recorded side effect, is recommended as an appropriate treatment for intractable hiccups caused by liver disease.

## 4. CONFLICT OF INTERESTS

Authors have no conflict of interests.

## 5. ACKNOWLEDGMENTS

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