



## SNS COLLEGE OF PHARMACY AND HEALTH SCIENCES

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### ANTI DYSENTRICS

Dysentery is an infectious disease associated with severe diarrhea. An antidysentric is a substance used to prevent or treat diarrhea. Ex : Ipecac

#### IPECAC

**Synonyms:** Ipecacuanha; Brazilian or Johore Ipecac; Hippo; Ipecacuanha root; Radix ipecacuanhae.

**Biological Source:** Ipecac consists of the dried root or rhizome of *Cephaelis ipecacuanha* or of *Cephaelis acuminata*.

**Family :** Rubiaceae.

**Geographical Source:** The plant is indigenous to Brazil and also found in Colombia, Cartagena, Nicaragua, Savantilla, Malaya, Burma, Panama and West Bengal. In India it is cultivated at Mungpoo (Darjeeling), in Nilgiris near Collar and in Sikkim.

#### **Characteristics:**

- The rhizome is thin or sometimes thick and annulated.
- Shape is cylindrical, slightly, tortuous, external surface is broadly annulated,
- Brick red to brown in colour, the ridges are rounded and encircle the root,
- Fracture of root is short and shows a thick,
- Greyish bark and small dense wood.
- Odour is slight and taste is bitter and acrid.



**Chemical Constituents:** Ipecac root contains 2–3% of total **alkaloids**. These include **emetine**, **cephaeline**, **psychotrine** and **psychotrine methyl ether**.

**Chemical Test for Emetine:**

Powdered drug (0.5 g) is mixed with HCl (20 ml) and water (5 ml), filtered and to the filtrate (2 ml) potas-sium chloride (0.01) is added. If emetine is present, a yellow colour develops which on standing for 1 hour gradually changes to red.

**Uses:**

- Ipecac is emetic and used as an expectorant and diaphoretic and in the treatment of amoebic dysentery.
- The alkaloids have local irritant action.
- In the treatment of amoebic dysentery emetine hydrochloride is given by injection and emetine and bismuth iodide by mouth.
- Psychotrine and its methyl ether are selective inhibitors of human immunodeficiency virus.

**Adulterants:**

- 1) The drug is often substituted by stem and roots of
  - *Richardsonia scabra*,
  - *Cryptocoryne spiralis*,
- 2) The powdered drug is often adulterated with almond meal.