

CINCHONA

Synonyms

Cortex Cinchonae, Countess, Peruvian or Jesuit's bark, Cinchona

Biological Source

Cinchona is the dried bark of the stem or of the root of *Cinchona calisaya* Wedd., *Cinchona ledgeriana* Moens., *Cinchona officinalis* Linn., and *Cinchona succirubra* Pavon., or hybrids of any of the first two species with any of the last two species, belonging to family Rubiaceae.

Chemical Constituents

More than 30 alkaloids have been reported in cinchona. The chiefly identified alkaloids are quinidine, quinine, cinchonine and cinchonidine. These constituents are the stereoisomers of each other like quinine is stereoisomer of quinidine and cinchonine is stereoisomer of cinchonidine. The other constituents available are quiniarnine, cinchotine, hydroquinine, hydrocinchonidine, cinchotannic acid, etc. Quinine and quinidine has a methoxy group in it but cinchonine and cinchonidine do not have a methoxy group. Other than these it also consist of bitter glycoside, starch grains, calcium oxalate crystals and crystalline acid like quinic acid.

Chemical Test

- 1) Thalleioquin test: To the extract of cinchona powder add one drop of dilute sulphuric acid and 1 ml of water. Add bromine water drop wise till the solution acquires per-manent yellow colour and add 1 ml of dilute ammonia solution, emerald green colour is produced.
- 2) The powdered drug when heated with glacial acetic acid in dry test tube, evolves red fumes, which con-dense in the top portion of the tube.
- 3) Cinchona bark, when moistened with sulphuric acid and observed under ultraviolet light shows a blue fluorescence due to the methoxy group of Quinine and quinidine.

Uses

It is mainly employed as antimalarial drug, but it is also used as analgesic, antipyretic, protoplasmic, bitter stomachic and tonic. Quinidine is cardiac depressant and Cinchonidine is used in rheumatism and neuralgia.

Marketed Products

It is one of the ingredients of the preparations known as Herbipyrin tablet, M.P. 6 Capsules (Vasu Healthcare).