

Antileprotic Drugs

Anti-leprotic drug refers to the leprostatic agent use against bacteria causing leprosy, M. Leprosy. Infection lives in patients' bodies for a long time, leprosy is also called Hansen's disease. It is a chronic infection that may cause disturbance or isolation from society. Leprosy is not able to diagnose by laboratory test it is characterized by the skin reactions occur by removing the organism from an infected person's body called lepromin skin reaction.

CHAULMOOGRA OIL

Synonyms

Hydnocarpus oil; gynocardia oil.

Biological Source

Chaulmoogra oil is the fixed oil obtained by cold expression from ripe seeds of *Taraktogenos kurzii* King, (syn. *Hydnocarpus kurzii* (King) Warb.), *Hydnocarpus wightiana* Blume, *H. anthelminticta* Pierre, *H. heterophylla*, and other species of *Hydnocarpus*,
Family: Flacourtiaceae.

Geographical Source

The plants are tall trees, up to 17 m high, with narrow crown of hanging branches; native to Burma, Thailand, eastern India, and Indo-China.

Characteristics

The oil is yellow or brownish yellow. Below 25°C it is a soft solid. It has peculiar odour and sharp taste. It is soluble in benzene, chloroform, ether, petrol; slightly soluble in cold alcohol; almost entirely soluble in hot alcohol and carbon disulphide.

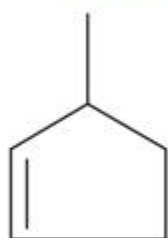


Hydnocarpus kurzii

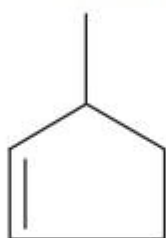
Chemical Constituents

Chaulmoogra oil contains glycerides of cyclopentenyl fatty acids like hydnocarpic acid (48%), chaulmoogric acid (27%), gorlic acid with small amounts of glycerides of palmitic acid (6%), and oleic acid (12%). The cyclic acids are formed during last 3–4 months of maturation of the fruit and are strongly bactericidal towards the *Micrococcus* of leprosy.

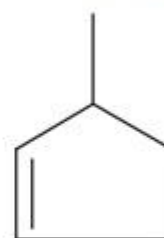
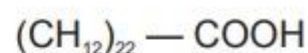
The seeds of *H. wightiana* contain a flavonolignan hydnocarpin; isohydnocarpin, methoxy hydnocarpin, apigenin, luteolin, chrysoeriol, hydnowightin, epivolkenin, and cyclopentenoid cyanohydrin glycosides.



Hydnocarpic acid



Chaulmoogric acid



Gorlic acid

Uses

The oil is useful in leprosy and many other skin diseases. The cyclopentenyl fatty acids of the oil exhibit specific toxicity for *Mycobacterium leprae* and *M. tuberculosis*. The oil has

now been replaced by the ethyl esters and salts of hydnocarpic and chlumoogric acids. At present organic sulphones have replaced Chaulmoogra oil in therapeutic use.