Diploma in Pharmacy 1st Year

Pharmacognosy Practical

To study morphological identification of Clove

Aim:

To study morphological identification of Clove.

Reference :

Dr. Gupta G.D , Dr. Sharma Shailesh , Kaur Navjit , "Practical Manual of Pharmacognosy" Published by Nirali Prakashan , Pg.No 35 - 38

Biological Sources:

Clove consists of the dried flower buds of *Eugenia caryophyllus* Thumb, belonging to family Myrtaceae.

Chemical Constituents:

Clove contains 14-21% of volatile oil. The other constituents present are the eugenol, acetyl eugenol, gallotannic acid, and two crystalline principles, a and B-caryophyllenes, methyl furfural, gum, resin, and fibre.

Caryophyllin is odourless component and appears to be a phytosterol,whereas eugenol is a colourless liquid. Clove oil has 60-90% eugenol,which is the cause of its anesthetic and antiseptic properties.

Morphological Characters:

- Clove is reddish-brown in colour, with an upper crown and a hypanthium.
- The hypanthium is sub-cylindrical and tapering at the end.
- The crown region consists of the calyx, corolla, style and stamens.
- Clove has strong spicy, aromatic odour, and pungent and aromatic taste.

Uses:

- ✓ Clove is used as an antiseptic, stimulant, carminative, aromatic, and as a flavouring agent.
- ✓ Eugenol is used for the commercial production of vanillin,
- ✓ Dentists use clove oil as an oral anaesthetic and to disinfect the root canals.
- ✓ Clove oil can stop toothache. A few drops of the oil in water will stop vomiting. eating cloves is said to be aphrodisiac.
- ✓ Eugenol is also used as local anaesthetic in small doses.

Result

The morphological study of clove was performed.