



EXPERIMENT NO: 12

Cinchona bark: Cortex Cinchonae: Cinchonae Rubrae Cortex

Latin name: *Cinchona succirubra*. Pavon. (Red Cinchona)

Family: *Rubiaceae*



Cinchona succirubra

- ✓ Perennial trees 10m.
- ✓ The dried bark is curved ridges, greenish gray to brown.
- ✓ Origin: native to the tropical South America.

Constituents :

Alkaloids (quinine, quinidine, cinchonine).

Uses : Quinine : Antimalarial.

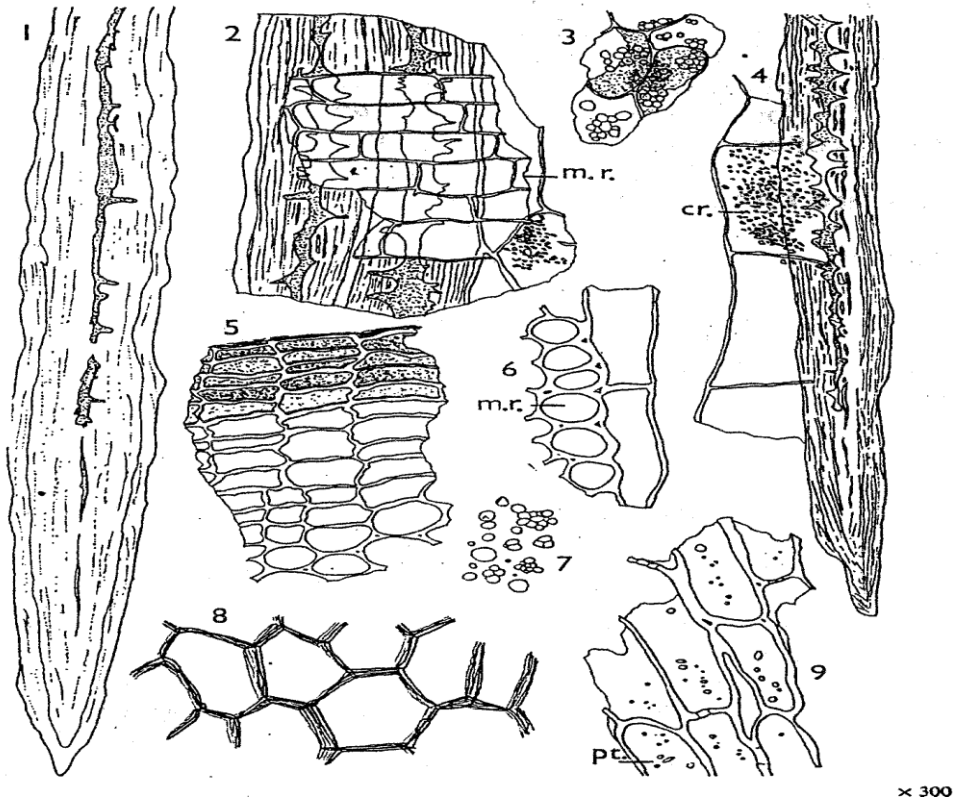
Night muscles cramps.

Quinidine : Arrhythmias.

Microscopical examinations

Characteristic elements:

1. Cork (8).
2. Single fiber (1).
3. Cork and phelloderm in sectional view (5).
4. Parenchymatous cells containing starch granules and brown pigment (3).



1. Part of a single fiber.
2. Part of a group of fibers and phloem parenchyma with overlying medullary ray (m.r.) in radial longitudinal section.
3. Parenchymatous cells containing starch granules and brown pigment.
4. Part of a fiber with phloem parenchyma, one cell containing calcium oxalate micro-crystals (Cr.).
5. Cork and phelloderm in sectional view.
6. Phloem parenchyma and part of a medullary ray (m.r.) in tangential longitudinal section.
7. Starch granules.
8. Cork in surface view.
9. Phloem parenchyma with pits (pt.).

Homework:

- Q1- List all other species of Cinchona which are present in nature.
- Q2- Why does Cinchona bark causes irritation for human skin?
- Q3- List the trade names for drugs containing Quinine and Quinidine in the Palestinian markets.
- Q4- Write a full report a bout Cinchona history in medicine.