The rosy periwinkle (Catharanthus roseus) is native only to the tropical forests of Madagascar, the world’s fourth largest island, found off the east coast of Africa. When researchers began to analyse the plant in the 1950’s they discovered it contained over 70 alkaloids. Some were found to lower blood sugar levels and others to act as hemostatics, but the most interesting were vinblastine and vincristine, which were found to lower the number of white cells in blood. A high number of white cells in the blood indicates leukemia. So a new anti-cancer drug had been discovered. Vinblastine has helped increase the chance of surviving childhood leukaemia from 10% to 95%, while vincristine is used to treat Hodgkins’ Disease. Traditional Madagascan healers used the rosy periwinkle for treating diabetes. This led to its study by western scientists who then discovered its anti-cancer properties. These medicines have proved very profitable for global drug companies. Worldwide sales are worth over £75 million a year, but virtually none of this money finds its way back to Madagascar, one of the poorest countries in the world. Recent international agreements have tried to ensure that more profits from the commercial development of animal and plant species return to the countries of origin.

**Key words:**
*Catharanthus roseus*, Cander, *Rosy periwinkle*

**Alkaloids of rosy periwinkle:**
Following are different alkaloids found in rosy periwinkle:
- Vincristine,
- Vinblastine
- Reserpine
- Ibogaine
- Yohimbine
- Raubasine
Out of these Vincristine and Vinblastine are mostly used.

**Vincristine:**
Vincristine (brand name, Oncovin), also known as leurocristine, is a vinca alkaloid from the Catharanthus roseus (Madagascar periwinkle), formerly Vinca rosea and hence its name. It has molecular formula as C46H56N4O10. It is a mitotic inhibitor, and is used in cancer chemotherapy. Vincristine is a colourless fluid.

**Mode of action:**
*Tubulin* is a structural protein which polymerises to form microtubules. The cell cytoskeleton and mitotic spindle, amongst other things, are made of microtubules. Vincristine binds to tubulin dimers, inhibiting assembly of microtubule structures. Disruption of the microtubules arrests mitosis in metaphase. The