



Research Article

Antisolar Activity of Catharanthus Roseus (vinca) Flower

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ABSTRACT

Objective:- To evaluate and check the antisolar activity of vinca flowers using UV – Spectrophotometer At λ max of 200 to 400 nm. Methods:- THE given collected flowers of vinca were dried for sufficient time of 3-4 days and then extract was made which was then by dilution methods observed under UV – spectrophotometer at range of 200 -400 nm λ max. Results:- UV –spectrophotometer had shown the spectra of λ max 200-400nm i.e. 215 nm. Conclusion:-Extract was capable of being absorbed in entire UV range.

INTRODUCTION

Skin is primary layer of all living things which covers all organs, any damaging or alteration in this leads to various conditions or diseases including darkness of skin, aging ,etc. hence its protection is mandatory. Efficacy of sunscreen products to block UV – B radiation is expressed by sun protection factor which is UV energy required to produce Minimal erythema dose on protected skin divided by UV energy required producing a MED on unprotected skin. UV –A=320-400 NM, UV –B=290-320 NM, UV –C=200-290 NM .

Probably use of vinca has been known since 50 B.C. as antidysentric , antihemorrhagic, and diuretic and wound healing .This plant was first scientifically investigated by Canadian workers

Noble, Beer, Cutts, etc. it consists indole alkaloids, dihydroindole and amongst them are vincristine and vinblastine. Vincristine sulphate is antineoplastic agent which act by arresting mitosis at metaphase. Also other uses are :- Hodgkins disease , lymphomas, and choriocarcinoma.



Fig. Catharanthus Roseus

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Advantages of UV: -

It includes production of vitamin d , a vitamin essential to human health .Vitamin D helps body to absorb calcium and phosphorous from food and assists bone development Who recommends 5- 15 minutes of sun exposure 2 -3 times a week.

Disadvantages of UV: -

Skin damages, wrinkles, loss of elasticity, due to collagen, destruction by UV rays , dark spots, pigmentation ,skin cancer, etc. Sun protection factor (SPF) is measure of how much solar energy (UV Radiation) is required to produce sunburn on protected skin. Its calculation is based on application of 2 milligrams (mg) of sunscreen of each square centimetre (cm) of skin surface.

Synthetic sunscreen products in markets are: -

- 1.Cetaphil Sun SPF 50
2. Neutrogena ultra- sheer
3. Sunscreen with SPF 55
4. Face cream For Sun protection
5. Cetaphil Sun kids lotion

MATERIAL AND METHODS: -

• Selection Of Medicinal Plant

Plant of Catharanthus roseus (vinca) was selected based on its several uses. Apparently healthy and disease free plants were selected for antisolar activity.

• Collection Of Sample

1. Fresh flowers of Catharanthus roseus (vinca) were collected.
2. Then flowers are washed under running tap water to remove debris and shade dried for about 2-3 days to obtain a constant weight.

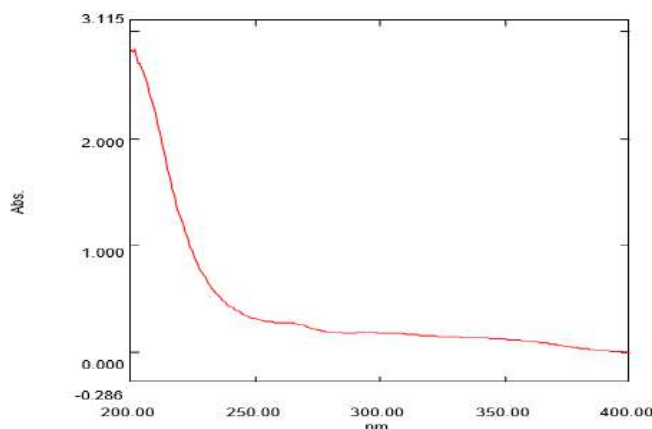
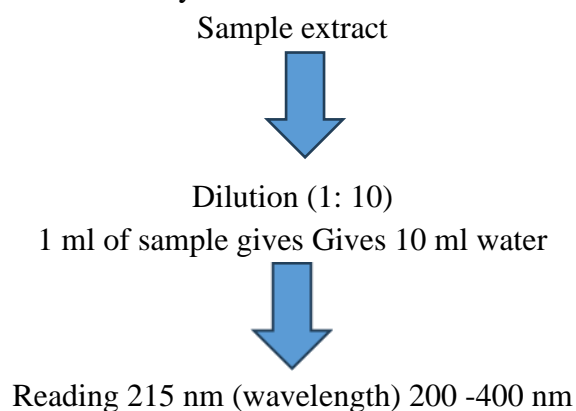
3. Then the dried flowers were mechanically grinded by using a mortar and pestle.
4. And finally stored in separate air tight bottle till use.

Procedure: -

1. Take a small quantity of sample in 100ml beaker .
2. Add ethanol to it and mix well.
3. Keep the solution for one hour and then filter.
4. Evaporate the solution and then use residue remain in a beaker.
5. Take a small quantity of residue and dissolve it in blank water.
6. Then in uv-visible spectrophotometer, observe the maximum absorbance at maximum wavelength 200-400 nm.
7. Observe the peak of absorbance wavelength.

Observations: -

Antisolar activity of vinca flowers is observed.



RESULT: -

The given sample of *Catharanthus Roseus* (vinca) flower extract showed that it had absorbance of λ max in range of 215 nm. So, it had sun protection activity.

CONCLUSION: -

The given drug sample *Catharanthus roseus* (vinca) flowers showed UV absorbance of 215 nm, which indicates that UV –C rays could be absorbed by flower extracts.

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