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### EVALUATION OF ANTIOXIDANT ACTIVITY OF HERBAL MEDICINES ANGARAG POWDER AND ESAB LEP WATI

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**Abstract:** Two herbal medicines, Angarag Powder and Esab Lep Wati have been elucidated for quantitative antioxidant activity. Both the drug showed good antioxidant assay for DPPH. The IC<sub>50</sub> values of both the drugs have also been reported in the study.

**Keywords:** Angrag Powder, Esab Lep Wati, Antioxidant Activity, IC<sub>50</sub> Value



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## INTRODUCTION

Mukhadooshika is a distressing skin condition which is explained well in Ayurvedic classics.<sup>1,2,3,4</sup> Thorn like eruptions which are painful, thick, containing fat inside, appearing on the face are termed as Mukhadooshika. Acne vulgaris, the closest clinical entity to Mukhadooshika in modern medicine, is prevalent among around 80% of the population in the age group 11-30 years. In India, 200-300 million youngsters suffer this condition is not showing any grave physical conditions, it may cause significant emotional and psychological distress and depression<sup>5</sup> to the affected patient. Natural resources such as Fuller's earth (Multani Mitti) has the power to absorb morbid matter<sup>6</sup>. It has dissolving power and smoothening effect<sup>7</sup>. With the quality of drawing pus as well as relieving localized pain, mud packs are hence useful in acne<sup>8</sup>.

Neem, Multani Mitti & Babchi are the main constituents of Esab Lep Wati & Angaraag Powder. Out of them, Neem is reported to be useful on skin disease. The chemical investigation on the product of the Neem tree was extensively documented. The herb, Azadirachta indica, has been found to have properties of blood purifier and beauty enhancer.

Neem oil is used for preparing cosmetic as soap, neem shampoo, balms and creams as well as toothpaste<sup>9</sup>. Multani mitti removes pimple mark, treats sunburn, helps unclog pores, cleans the skin flakes and dirt<sup>10</sup>.

Babchi (*Psoralea corylifolia* Linn) is a common herbaceous weed. It is medicinally important plant. The Babchi seed are used in the treatment of leukoderma, leprosy, psoriasis and inflammatory diseases of the skin<sup>11-13</sup>.

## MATERIALS AND METHOD

Anrag powder and Esab Lep Wati have been collected from the Adarsh Goseva Avam Anusandhan Prkalp, Akola.

## STUDY OF ANTIOXIDANT ACTIVITY BY DPPH

The antioxidant activity of the Anrag Powder and Esab Lep Wati was assessed on the basis of the radical scavenging effect of the stable 1,1-diphenyl-2-picrylhydrazyl (DPPH). The diluted working solutions of the test were prepared in water. 0.004% of DPPH was prepared in ethanol and 3 ml of this solution was mixed with 3 ml of sample solution. These solution mixtures were kept in dark for 30 min and optical density was measured at 517 nm using UV Visible spectrophotometer. DPPH solution in ethanol (0.004%) was used as blank. The optical density was recorded and % inhibition was calculated using the formula given below

$$(\%) \text{ INHIBITION or } (\%AA) = \frac{A-B}{A} \times 100$$

Where A = Optical density of the blank and B = Optical density of the sample

**RESULT AND DISCUSSION**

The stock solution 1 mg/ml of Anrag Powder and Esab Lep Watiwas prepared using water as a solvent. The required dilutions 0.1 mg/ml to 0.9 mg/ml were prepared by appropriate dilutions. The optical density and percent antioxidant activity was calculated.

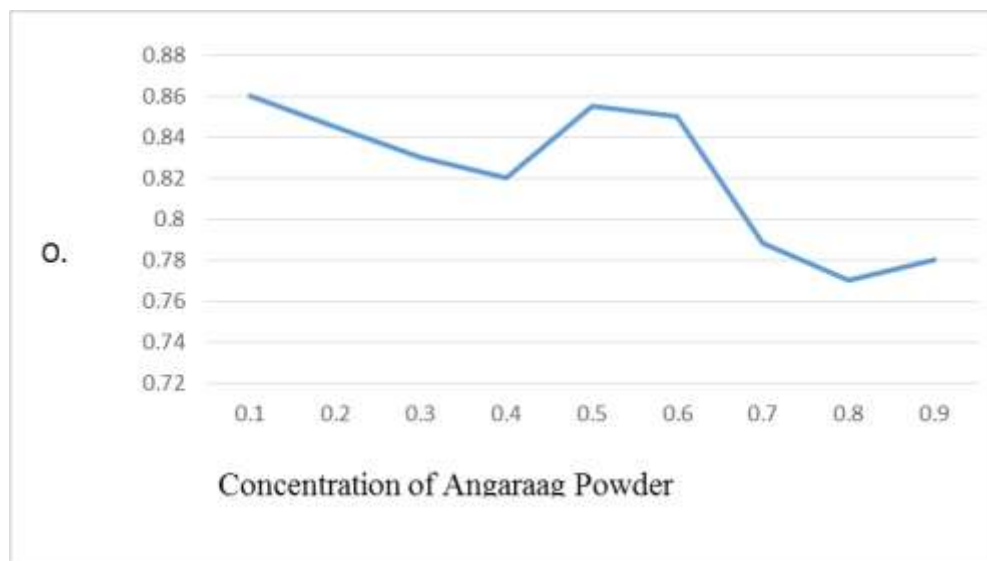
**Table-1**

Optical density & % AA for Angaraag Powder.

O.D.DPPH(Blank)=0.950

Conc.mg/ml	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
O.D.of sample	0.860	0.845	0.830	0.820	0.855	0.850	0.788	0.770	0.780
%AA	9.47	11.05	12.63	13.68	10.00	10.52	17.05	18.94	17.89

Decrease in O. D. of sample with increase in concentration of Angaraag Powder



Increase in %AA of sample with increase in concentration of Angaraag Powder

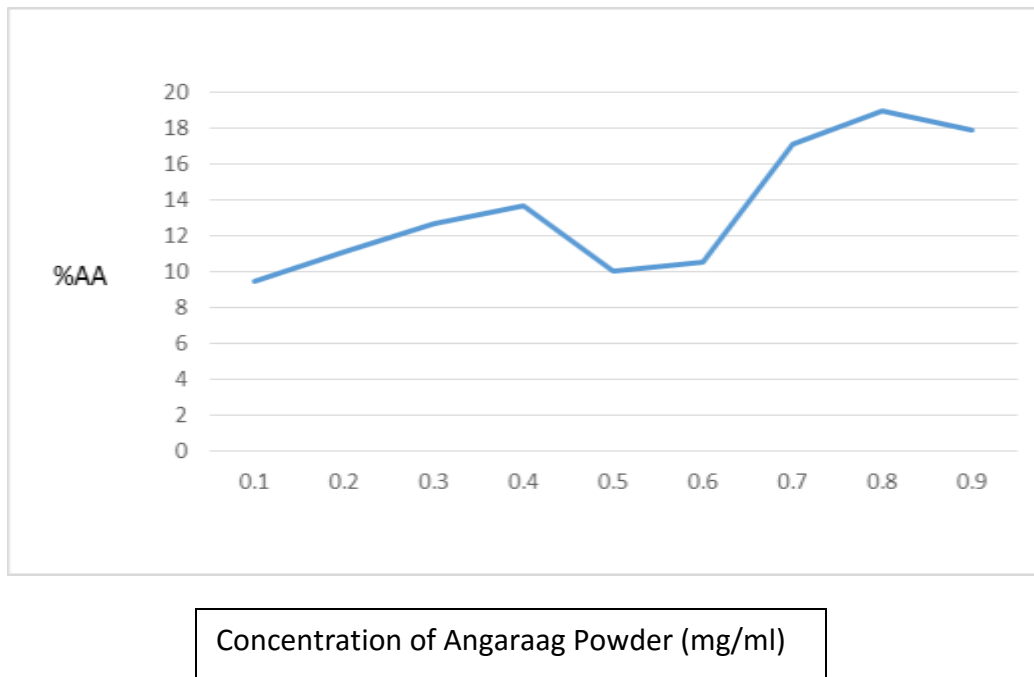


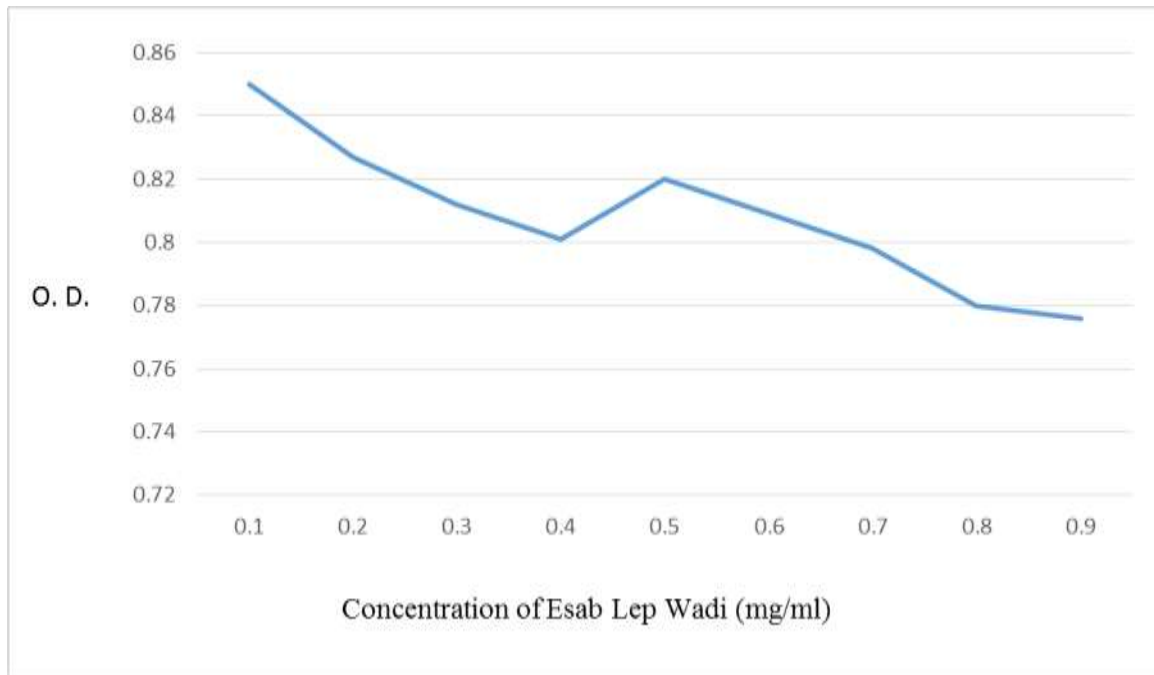
Table-2

Optical density and %AA for Esab Lep Wati

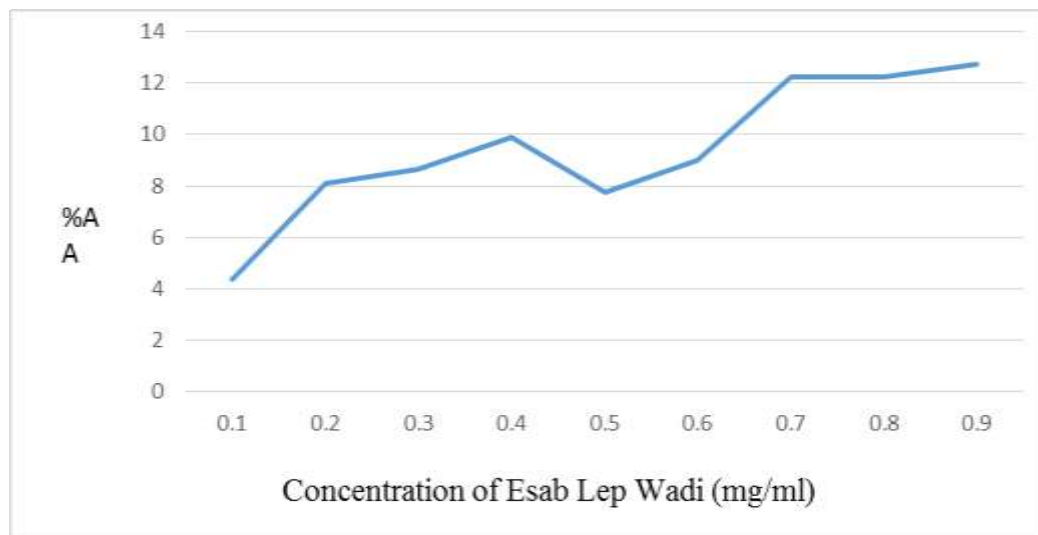
O.D DPPH(Blank)=0.889

Conc.mg/ml	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
O.D.of sample	0.850	0.827	0.812	0.801	0.820	0.809	0.798	0.780	0.776
%AA	4.38	8.09	8.66	9.89	7.76	8.99	10.23	12.26	12.71

Decrease in O.D of sample with increase in concentration Esab Lep Wati



As concentration increase the % antioxidant activity increase



## CONCLUSION

The remarkable increase in percent antioxidant activity with concentration has been observed for both the Ayurvedic medicines. The  $IC_{50}$  value for Angarag Powder and Esab Lep Wati were found to be 0.56 and 0.25 respectively.

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