

*Short Communication*

ANTI-ARTHRITIC EFFECT OF AMUKKARA (*Withania somnifera*) CHOORNAM IN PATIENTS WITH RHEUMATOID ARTHRITIS

^aThamaraiselvi, T., ^bBrindha, S., ^cKaviyarasi, N. S., ^dAnnadurai, B. & ^dGangwar, S. K.

^aDepartment of Biochemistry, Government Arts College for women, Krishnagiri, Tamilnadu, India.

^bDepartment of Bioinformatics, New Prince Arts and Science College, Chennai, India.

^cDepartment of Biochemistry, Bangalore City College, Bangalore, India.

^dDepartment of Crop and Horticultural Sciences, Biotechnology Team, College of Dryland Agriculture and Natural Resources, Mekelle University, Mekelle, Ethiopia.

ABSTRACT

The present study was designed with the treatment of siddha medicine in patients who suffered with arthritis. The result showed better when compared with allopathy. A laboratory experiment was conducted with rheumatoid arthritis patients treated with Amukkara choornam (*Withania somnifera*). The human subjects were divided in to three age groups between 40 and 50 years, representative samples were taken from normal. They are free from RA, patients treated with Amukkara choornam and patients without Amukkara choornam 60 days after the treatment, the biochemical parameters were done Hb, ESR, ALP, Antioxidant Enzyme, Vit E, Vit C, Lipid peroxide etc. Clinically it has been shown that there are no side effects produced by Amukkara choornam during the treatment and after the treatment was over.

KEY WORDS: Ashwagandha, *Withania somnifera*, Amukkara, treatment, Amukkara choornam etc.

INTRODUCTION

In the present study it was aimed the Antiarthritic effect of *Withania somnifera* is for the treatment of patients with Rheumatoid Arthritis among the Allopathy, Homeopathy, Unani and Ayurvedic of the universe, siddha treatment is a best and less expensive when compare with others . Rheumatoid Arthritis is a chronic inflammatory Auto immune disease affecting the joints or connective tissue disorder. To analyze the Biochemical parameters are Glucose, urea, Protein, Cholesterol, Hb, ESR, RF (Rheumatoid factor) Antioxidants Vit E , Vit C , and the Enzymes are ALP SOD CAT GPX level. Amukkara influences the above said parameters in RA treated patients. The efficiency of Amukkara choornam was found more prominent in treated patient than control. instead of allopathy using siddha drugs cause no side effects

MATERIALS AND METHODS

Human Subjects from Government Hospital in Dharmapur, Tamil Nadu

Group1 : Control

Group2 : Untreated Without Amukkara choornam

Group3 : Treated With Amukkara choornam

Chemicals and Glassware

Estimation of hemoglobin by Drabkin and Austin method (1932)

0.02ml of blood was diluted with 5.0ml of Drabkin's reagent. The diluted Blood was mixed well and allowed to stand for 10 minutes. The color intensity was read at 540nm.

Estimation of Erythrocyte sedimentation rate

Blood was drawn and mixed with a pinch of EDTA to prevent clotting immediately drawn the blood in to westergrens tube. Erythrocyte sedimentation rate was determined by pipetting blood up to the mark in the westergren tube and fixed in the apparatus in a stand, readings were taken at every 30 minutes interval, read for 2 hours and expressed the result in mm/hour.

Determination of RF Test

Prepare dilution of the specimen with physiological saline 0.9% as indicated in the following table

Dilution	RF(IU/ml in undiluted sample)
1:2	1:2
1:4	24
1:8	48
1:16	96
1:32	192
1:64	384

Then proceed as in qualitative test for each dilution

Interpretation of results

The last dilution of serum with visible agglutination is the RF titre of the serum.

RESULTS

The study results of biochemical changes were obtained by the RA patients treated with Amukkara choornam. The level of Hb in treated patient was near to control, increased Hb exhibited by *Withania somnifera* as a Heamatinic properties of *Withania somnifera*. ESR is highly significant ($P < 0.05$) elevated in untreated subjects then in

control. Also the level of ESR ($P < 0.05$) decreased then in untreated group (Radhika and Andalu, 2002). The decreased level of lipid peroxide, ALP & RA factor. Lipid peroxidation is defined as oxidative deterioration of polyunsaturated lipids Tappel, 1979. The levels of lipid peroxide in terms of TBARS (Thiobarbituric acid reacting substance) was found to be significantly ($P < 0.01$) increased in untreated group when compare to control this could be due to the increased oxidative stress in the RA patients Naidu *et al.*, 2003. *Withania somnifera* glycowithanalides normalize the level of lipid peroxides by decreased oxidative stress it may be the antistress adaptogen activity of *Withania somnifera* (Bhattacharya *et al.*, 2001). RA factor was found to be significantly ($P < 0.05$) increased in untreated then in control was

showed in the Fig. 1 after the treatment with *Withania somnifera* significant ($P < 0.05$) decreased in treated subjects then in untreated serum ALP increased in RA patients it's a important indicator for assessing Arthritis valley (1969). The level of ALP significant ($P < 0.05$) increased in untreated then in control also the level of ALP significantly ($P < 0.05$) decreased in treated then untreated (Radhika and Andalu, 2002. Vit E & Vit C is the important antioxidants in biological system to inhibit lipid peroxidation, the level of antioxidant was increased after the treatment. Other antioxidant enzymes SOD, CAT & GPX Levels also increased after the treatment this could be due to the antioxidant effect of *Withania somnifera* Bhattacharya (1997).

FIGURE 1. Level of HB, ESR, ALP & RF IN RA patients treated with Amukkara (*Withania somnifera*)

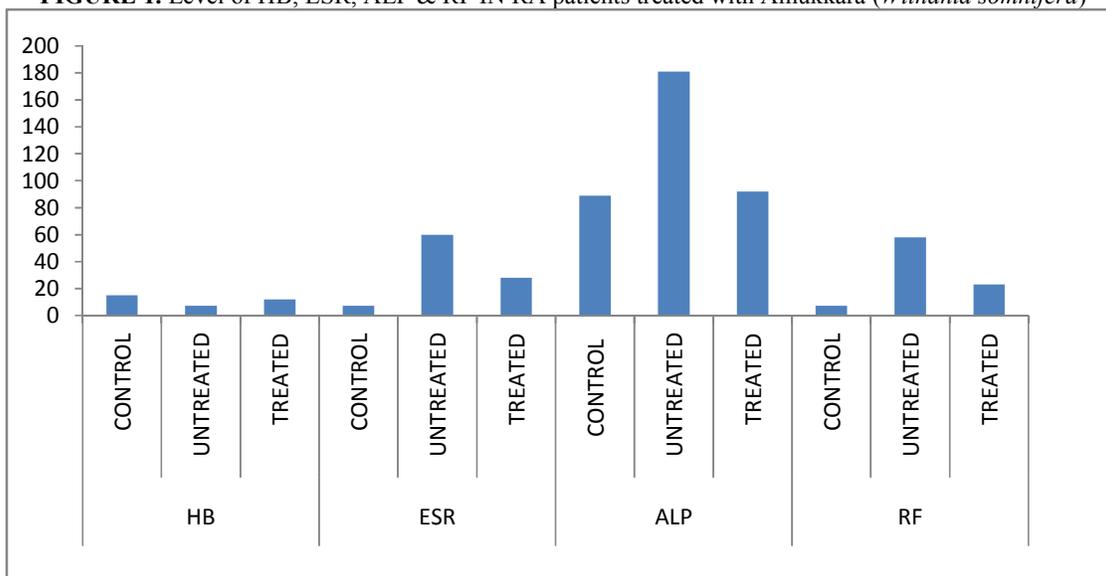


TABLE: Values of HB, ESR, ALP & RF in control, untreated & treated subjects

S.NO	HB(mg)	ESR (MM)	ALP (IU)	RF (IU)
Control	15	7	89	7
Untreated	7	60	181	58
Treated	12	28	92	23

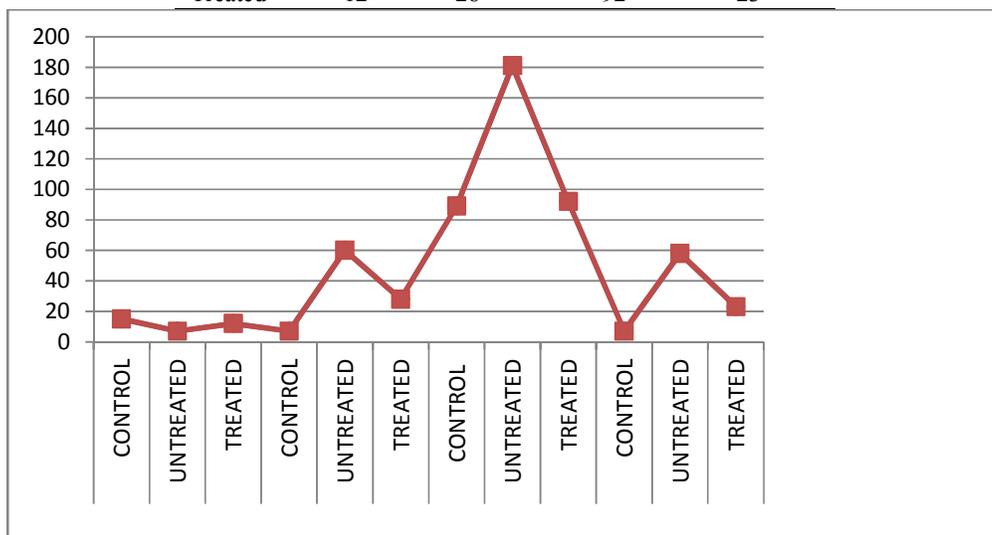


FIG -2. Values of HB, ESR, ALP & RF in control, untreated & treated subjects

DISCUSSION

The present investigation shows the Anti arthritic effect of *Withania somnifera* on the patients with RA patients. The results of present biochemical observations may evidently support the long term Antiarthritic property of *Withania somnifera* present in Amukkara choornam was done after drug administration. This may be well correlated with its Amukkara choornam containing *Withania somnifera* to produce symptomatic relief in rheumatoid arthritis clinically it has been shown that there are no side effects produced by Amukkara *withania somnifera* choornam during in treatment and after the treatment is over. Atleast 75% of RA patients treated with Amukkara choornam, showed improvement.

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