

EFFECT OF *TINOSPORA CORDIFOLIA* (WILLD.) MIERS. (*AMRITA*) ON *KAMALA ROGA* (JAUNDICE)

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(Received on 25.7.97)

Considering the chronic nature and complications of hepatitis and non availability of its satisfactory treatment, it is necessary to look for drugs from indigenous system of medicine. Accordingly Amrita (Tinospora cordifolia (Willd.) Miers. has been taken up on 20 patients of Kamala Roga (Jaundice of viral origin). The drug provided good clinical relief as well as biochemical improvement.

Introduction

Kamala in Ayurveda is derived from "*Kamam lati Hanti iti Kamala*". It mean there is aversion for all desires in the patient of this disease. This may be due to the patients mental and physical predominant symptoms seen in this

disease. *Kamala* has been described in all important classics of Ayurveda such as Caraka, Sushruta etc.

Amrita has been described in Ayurveda as *Pittaghna* drug predominantly leading to pacification of *Pitta Dosha* which is chiefly involved in *Kamala*. It is also described as *Balya*, *Vrishya*, *Ojovardhaka*, *Ayushya* and in the treatment of *Jvara*, *Pandu*, *Kamala* etc. So the drug *Amrita* has been selected for study in the treatment of *Kamala Roga* or jaundice of infective or viral origin.

Materials and Methods

This research work was performed in 20 cases of *Kamala Roga*. The indigenous drug *Amrita* was selected for the treatment.

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All the cases were registered from Aug. 1995 to Nov. 1996 in S.S. Hospital B.H.U., Varanasi.

Patients for this clinical study were selected, who presented themselves with loss of appetite, nausea, vomiting, yellowish urination and sclera gradually increasing weakness, abdominal discomfort and tenderness in hepatic area. Clinical presentation was studied in detail. Clinical study was done only in those patients whose liver function tests were found abnormal. Detailed clinical history and physical findings were recorded and the patients were investigated accordingly (Table I & II).

In the present study all the selected 20 patients were both males and females of varying age group coming to out patient department as well as admitted in Kayachikitsa ward of S.S. Hospital, Banaras Hindu University, Varanasi.

Diagnosis of *Kamala*

All the patients of *Kamala Roga* were selected and diagnosed as viral hepatitis or *Kosthashakhashrita Kamala* after history taking care, physical examination and biochemical investigations. Ayurvedic diagnosis was based on classical reference (*Carak, Chikitsa* -16). The investigations performed in all 20 cases were serum bilirubin, alkaline phosphatase, AST, ALT and HBsAg.

Selection of drug

Drug *Tinospora cordifolia* (Willd.)

Miers. was selected on the basis of previous observations and textual references. It is freshly available every where and cheaper than other drugs.

Preparation, dose and administration of drug

Freshly prepared juice of *Amrita* stem was administered orally in doses of 25 ml. thrice a day.

Duration

The duration of treatment of *Kamala Roga* (Jaundice of infective or viral origin) was approximately one month and patients were suggested to continue the drug for minimum 3 months or more to prevent recurrence.

Criteria of assessment

The results of the treatment with *Amrita* in the cases of *Kamala Roga* were assessed on the basis of clinical and biochemical improvements after treatment of one month with drug *Tinospora cordifolia* (Willd.) Miers.

Clinical improvements

Disappearance of icterus: Normal restoration of appetite, improvement in darkness of urine, decrease in hepatic tenderness and regression in hepatic enlargement were taken under clinical criteria.

Biochemical Changes

Normalization of altered liver function tests such as serum bilirubin, alkaline phosphatase AST, ALT and HBsAg were included in this criteria.

Assessment of result

After one month of treatment results were classified into three groups.

Cured

The patients having full recovery along with normal liver function tests were kept in this group.

Improved

The patients having complete clinical improvement and incomplete biochemical improvement were kept in this group.

Unchanged

There was no improvement in the clinical features and biochemical findings at all.

Follow up of the cases

The patients were suggested to report every month for six months or more according to the severity of the case. Clinical as well as laboratory examinations were performed every month in whom case it was needed.

Observations and Result

Incidence of habit

Out of 20 patients 75% were non vegetarian. 25% were vegetarian.

Incidence of habitat

Out of 20 patients maximum no. of patients i.e. 75% were rural, 25% were urban.

Incidence of *Prakriti*

Majority of the patients were having predominance of *pitta* i.e. 60%, 35% patients showed predominance of *Vata* and only 5% patients were of *Kapha* predominant *Prakriti*.

Effect of *Amrita* on total serum bilirubin

Before starting the treatment the mean serum bilirubin was 11.28 mg/dl. and after treatment the mean value reached to 3.79 mg/dl. The difference mean was 7.49 mg/dl. 't' and 'p' values were 6.30 and < 0.001 respectively. The resultant decrease in serum bilirubin was highly significant on statistical analysis.

Effect of *Amrita* on serum alkaline phosphatase

The pretreatment mean value of serum alkaline phosphatase was 18.22 K.A. units and after one month of treatment the mean value reached to 12.72 K.A. units. The

Table - I

Effect of *Amrita* on *lakshanas* of *Kamala Roga*

<i>Lakshanas</i>	Features BT	Present in Patients AT	Improvement in percentage
<i>Haridra Netra</i>	20	0	100
<i>Raktapeeta Mutra</i>	20	0	100
<i>Raktapeeta Purisha</i>	20	0	100
<i>Haridra Twaka</i>	13	0	100
<i>Haridra Mukha</i>	13	0	100
<i>Haridra Nakha</i>	13	0	100
<i>Bhekavarnata</i>	13	0	100
<i>Daurbalya</i>	17	3	70
<i>Aruchi</i>	17	0	100
<i>Avipaka</i>	17	0	100
<i>Sadana</i>	17	3	70
<i>Karshana</i>	17	3	70
<i>Jvara</i>	8	0	100
<i>Hrillasa</i>	7	0	100
<i>Daha</i>	4	0	100
<i>Shvasa</i>	2	0	100
<i>Chhardi</i>	2	0	100
<i>Parshava Shoola</i>	1	0	100
<i>Hicca</i>	—	—	—
<i>Bhinnav archas</i>	—	—	—
<i>Tilpishta Samibha</i>	1	0	100
<i>Varchas</i>	—	—	—

Table - II

Effect of *Amrita* on clinical features of *Kamala Roga*

Common features	Clinical features present in patients		Improvement in percentage
	B.T.	A.T.	
Anorexia	17	0	100
Nausea	7	0	100
Vomiting	2	0	100
Fatigue	13	0	100
Malaise	17	0	100
Arthralgia	1	0	100
Myalgia	2	0	100
Headache	1	0	100
Photophobia	—	—	—
Pharyngitis	1	—	100
Cough	1	0	100
Coryza	3	1	10
Alteration in olfaction	—	—	—
Alteration in taste	—	—	—
Fever	8	0	100
Dark urine	20	0	100
Clay coloured stool	1	0	100
Weight loss	8	5	15
Enlarged and tender liver	12	7	25
Splenomegaly	1	1	5
Cervical adenopathy	—	—	—
Spider angiomas	—	—	—
Pruritus	—	—	—
General depression	3	0	100
Constipation	16	0	100
Diarrhoea	—	—	—
Yellowish conjunctiva	20	0	100

mean of difference was 5.5 K.A. units. The 't' and 'p' values were 3.67 and <0.01 respectively. On statistical analysis results were highly significant.

Effect of *Amrita* on serum A.S.T.

The mean of A.S.T. value before treatment was 650.5 IU/L and after treatment it reached to 55.4 IU/L and difference mean value was 595.1 IU/L, 't' and 'p' values were 3.18 and <0.01 respectively. This showed significant decrease in serum A.S.T.

Effect of *Amrita* on serum A.L.T.

The mean A.L.T. value before treatment was 878.9 IU/L and after treatment was found 68.87 IU/L. The mean difference was fig. 810 IU/L 't' and 'p' values were 3.34 and <0.01 respectively. On statistical analysis the results were found significant.

Effect of *Amrita* on HBs Ag

After the clinical study it was concluded that the Australia antigen became negative in 25% cases.

Total response of *Amrita* on *Kamala Roga*

After considering all the factors of observations (Subjective as well as objective and laboratory) the assessment of the total response of the treatment was done. The results were categorised in terms of cured and relieved groups. The patients

who showed almost complete relief in cardinal clinical features of *Kamala Roga* like loss of appetite, yellow colouration of conjunctiva and urine, weakness, nausea, enlarged and tender liver etc. with the normalization of altered liver function tests were categorised under cured group of response. On the other hand the patients who showed considerable improvement in the aforesaid cardinal features along with normalization of altered liver functions were categorised under relieved group of response.

In the present series of study out of 20 patients of *Kamala Roga* 16 patients (80%) were completely cured and only 4 patients (20%) evinced relieved response. No case was remained unchanged or developed any complication in the present series.

Thus, on the basis of above mentioned assessment of the clinical trial of *Amrita* (*Tinospora cordifolia* (Willd.) Miers.) in the treatment of *Kamala Roga* (Jaundice of infective or viral origin), it is clear that the drug *Amrita* plays important role in relieving the symptoms and signs as well as normalization of altered liver functions. Therefore, it can be concluded that *Amrita* (*Tinospora cordifolia* (Willd.) Miers.) is a cheaper, effective, better, safe and beneficial drug for *Kamala Roga* (Jaundice of infective or viral origin).

Discussion

The object of the present study was to search an effective indigenous drug which should not only treat the disease but also prevent recurrence and complications

which are commonly seen after hepatitis especially in hepatitis 'B' and 'C'. The drug was tried in 20 patients of *Kamala Roga* and the patients were observed on every 10th day for one month and on every month for six months. The results indicate that maximum no. of patients became cured in one month and rest of the patients relieved clinically and biochemically within 3 months. 25% of patients with HBS Ag positive became negative for Australia antigen. Rest of the patients are

taking treatment but no patient developed any complication. So it was found that drug *Amrtia* has a valuable contribution in the treatment of *Kamala Roga* and prevention of its complications.

Conclusion

It is observed that the drug *Amrita* has an important role in the treatment as well as in the prevention of *Kamala Roga*. It is a cheaper drug, freely available everywhere and has no side effect.

REFERENCES

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|---|------|---|
| Anonymous | 1996 | <i>Gastronews</i> , An IJCP group Publication. |
| Carak | — | <i>Carak Samhita</i> (Hindi Commentary by Kashinath Shastri and G.N. Chaturvedi), Chaukhambha Sanskrit Series, Varanasi. |
| Chaturvedi, G.N., Tower, G.S., Tiwari, S.K. and Singh, K.P. | 1983 | Clinical Study on <i>Kalmegha</i> (<i>Andrographis paniculata</i> Nees.) in Infective Hepatitis: <i>Ancient Science of life</i> , Vol 2, No. 4, p-208-215. |
| Mishra, B. | — | <i>Bhava Prakash</i> (Part - III) (Commentary by H.P. Pandey), 5th Edition, Chaukhambha Sanskrit Series, Varanasi. |

Prakash, S.	1994	The role of <i>Amrita</i> in the Treatment of Infective Hepatitis, M.D. (Ay.) Thesis, Deptt. of Kayachikitsa, B.H.U., Varanasi.
Sherlock, S.	1986	<i>Diseases of liver and Biliary System</i> , 7th Edition, Balckwell Scientific Publication.
Sushruta	1972	<i>Sushruta Samhita</i> (Commentary by Dr. Ambika Datta Shastri), Chaukhamba Sanskrit Sansthan, Varanasi.
Vagbhatta	1982	<i>Astanga Hridaya</i> (Commentary by Pt. Haridatta Shastri), Chaukhambha Sanskrit Series, Varanasi.
Vagbhatta		<i>Astangasangraha</i> , Chaukhambha Sanskrit Series, Varanasi.

हिन्दी सारांश

कामला रोग की चिकित्सा में अमृता के प्रभाव का अध्ययन

महेन्द्र प्रसाद, एन०पी० राय एवं के० त्रिपाठी

कामला रोग की सन्तोषजनक चिकित्सा के अभाव में एवं इस रोग के द्वारा होने वाले उपद्रवों को रोकने के लिए आयुर्वेदीय औषधियों के अनुसंधान की आवश्यकता है। आज के समय में इस रोग के बढ़ते हुए रोगियों की संख्या तथा इस रोग के उपद्रवों के कारण होने वाले दुष्परिणामों से इसका महत्व और भी अधिक बढ़ जाता है, अमृता के कामला रोग की चिकित्सा में विभिन्न सन्दर्भों एवं अनुभवों के आधार पर इसका निदान चिकित्सात्मक परीक्षण किया गया है, कामला रोग के 20 रोगियों पर औषधि का परीक्षण किया गया है तथा यह पाया गया है कि औषधि रोगी को लक्षणों से मुक्त करने के साथ-साथ रोग के द्वारा होने वाले उपद्रवों को भी रोकने में सहायक है।