Arsenic Disulphide (*Rasa Manikya*) in the treatment of Rehumatoid Arthritis (*Amavata*)

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A clinical trial was carried out on 20 number of seropositive Rheumatoid arthritis (*Amavata*) of Kaphaja type. The trial drug was Rasamanikya and Godanti as a single dose of 250 mg each every 12 hour interval for a period of 30 days. The study discloses an effect of complete remission—5\%, maximum improvement 65\% and minimum improvement 30\%. The above results includes clinical remission including seronegativity of R.A. Factor and declining in the E.S.R. patients preference over recovery and healthyness with the trial drug for 30 days duration were satisfying.

Introduction

In the last few decades a group of conditions primarily involving the musculo-skeletal structures has been a subject of intense study. Among the connective tissue disorders rheumatoid arthritis is a chronic non-suppurative polyarthritis affecting mainly the peripheral small joints running in a course of exacerbation and remission accompanied by swelling of synovial membranes, erosion of cartilages and bones and wasting of associated muscles along with general systemic disturbances. It is prevalent among 3\% of adult population, not directly fatal but victims with severe affliction tend to die 10 or more years prematurely. The disease still possess an incuable status and permanent remission is yet to be declared.

In the field of management the prognosis of the disease has been changed to a great extent as the exacerbation can be suppressed quickly, the period of remission can be enhanced, deformities can be prevented and disability can be compensated by better orthopedic appliances.

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but there is still search for a better drug to induce satisfactory benefit.

The clinical features of rheumatoid arthritis has got superisingly maximum resemblance with the disease "Amavata" described in compediams of Ayurvedic system of medicine.

Material and Methods

Twenty numbers seropositive rheumatoid arthritis cases (Amavata of Kaphaja type) having more than six weeks, duration of chronicity were tried with an indigenous compound. The selection criteria was positive R.A. factor (Latex slide test) with clinical sign and symptoms refering to A.R.A. Joint Count. E.S.R. was estimated to asses the prognosis. Either Sex of various age group were the Subjects.

Exclussion Criteria

Tridosaja Amavata and Pittanubandhee

Efficacy Study:

Sndhi ruja (Pain)
Sparsha Sahatiwa (Tenderness—R.A.I) Compliance.
Sndhi Sotha (Swelling by measurement.
Morning stiffness—(Length of time).
R.A. factor—(Titration Value) (Latex slide.)
E.S.R.—West green method.

Assessment of Result

The sign and symptoms observed during pre and post trial were separated, compared and carefully adjudicated. In view of percentage of relief it was declared in the language as follows:—

(a) Complete remission
=No sign of swelling, pain and stiffness.
=E.S.R.—below 15 m.m.
=R.A. Factor—below 80.

(b) Maximum Improvement
=Pain and stiffness improved 75% and above.
=Minor swelling.
=Elevated E.S.R. from 15 to 50 mm.
=R.A. Factor—81 to 320.

(c) Minor Improvement
=Pain and stiffness relieved about 50 to 75%.
=Dimunution of swelling.
=Elevated E.S.R.—above 50 mm.
=R.A. Factor—321 to 640.

(d) No Improvement
=No relief of pain, stiffness and swelling.
=Unchanged E.S.R.
=R.A. Factor—Unchanged and above 640.
Drug/Dose/Duration

Rasamanikya 250 mg with Godanti 250 mg as a single dose with honey every 12 hour interval for thirty days.

Observation and Result

No patient was noticed with acute toxicity or intolerance. The objective progression and subjective relief were more satisfying besides the highly positive patients preference/compliance and a very faster healthiness. Previous treatment with other anti-inflammatory and, immuno-suppressive drugs could not render same feeling as that of Arsenic disulphide Compound.

Table—II

<table>
<thead>
<tr>
<th>Range of E.S.R.</th>
<th>B.T.</th>
<th>A.T.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0— 10</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11— 30</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>31— 50</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>51— 70</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>71— 90</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>91—110</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>111—130</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Mean ± S.D.</td>
<td>95.7 ± 26.57</td>
<td>37.25 ± 16.81</td>
</tr>
</tbody>
</table>

% of relief | t-value | P-value |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>40.18</td>
<td>3.88</td>
<td>&lt; 0.001</td>
</tr>
</tbody>
</table>

Within the E.S.R range of 70 we have observed that B.T. 5 Patients were there but after the treatment, 20 patients and percentage of relief was 40.18 and the test of significance shows the T.D. is highly significant to reduce E.S.R (Table II)

\[ t_{19,0.01}=3.88 \] (Hypothetical t-value) //t//calculated t-value > sign is used because it is verified that //t//>3.88.

Discussion

Rheumatoid arthritis could be traced as Amavata following ancient scripts. The word Amavata is a combination of two words—Ama and Vata. Ama is a pathological factor which is described to be formed from undigested food material consequent upon hypofunctioning of Agni (metabolism) and impaired digestion. Vata is the functional element which acts as the vector.
<table>
<thead>
<tr>
<th>Measures</th>
<th>Morning stiffness</th>
<th>Pain or Tenderness</th>
<th>Compliance</th>
<th>Swelling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Score ± SD (B.T.)</td>
<td>1.6 ± 0.49</td>
<td>1.75 ± 0.77</td>
<td>0 ± 0</td>
<td>Swelling was present</td>
</tr>
<tr>
<td>Mean Score ± SD (A.T.)</td>
<td>0.6 ± 0.66</td>
<td>0.4 ± 0.49</td>
<td>1 ± 0</td>
<td>In 20 patients, but</td>
</tr>
<tr>
<td>% of relief (Improvement)</td>
<td>37.5</td>
<td>22.86</td>
<td>100</td>
<td>after taking test</td>
</tr>
<tr>
<td>t-value</td>
<td>&gt;3.88</td>
<td>&gt;3.88</td>
<td>&gt;3.88</td>
<td>drug, improvement</td>
</tr>
<tr>
<td>P-Value</td>
<td>&lt;0.001</td>
<td>&gt;0.001</td>
<td>&gt;0.001</td>
<td>observed in case of 60%</td>
</tr>
<tr>
<td>Remark</td>
<td>Highly Significant</td>
<td>Highly Significant</td>
<td>Highly Significant</td>
<td>of patients</td>
</tr>
</tbody>
</table>

\( t_{19, 0.1\%} = 3.88 \) (Hypothetical value)

\( /t/ \) - The t used in the table is the calculated t-value.

"\( >\)" greater than Sign used, because it is verified that in almost all the above signs and symptoms, the calculated \( /t/ \) is greater than the hypothetical t at 0.1\% level of significance.
Agni is the occult pathology can be simulated with immune responses. It is presumed, the disease R.A. is a collagen disorder and an immunological dearangement. In the human body immune responses are via humoral antibodies made by plasma cells derived from B-lymphocytes and cellular responses by T. lymphocytes. In autoimmune disease tissue damage may be caused by either humoral antibody, immune complexes or cell mediated immunity. Among the immuno-globulins Ig M is referred to as R.A. Factor.

Ama Pachana is the mechanism to be carried out at the level of digestion as well as metabolism. The drugs mostly Tikta and Katu in taste having Akasa Vayu and Agni Ma’abhutas in predominance—with Laghu and Ruksa by nature are said to be antagonistic to Amavata, for the reason that Ama is Guru, Snigdha, Pichhila and Sthira i.e. Prithvi and Apya Mahabhutas are in abundance.

The drug under trial inherits both Ushna Virya, Ruksa and Tiksna Guna which is the basic and classical treatment for Amavata. This is inferred to have correcting the Agni or acts as immuno suppressive. The E.S.R is markedly decreased along with remission of clinico-objectives parameter.

The drug has probably interfered with the state of Kapha dosa in the body and as such counter acted the formation of “Ama” by increasing Agni.

Further the features of Sandhisotha and Ruja could be remarkably brought under control which is due to Ruksa and Ushna virya attributed with the drug. The properties of Tiksna inherited with the drug was an advantage since this property renders Chhedan and capable to enter in to the minute channels. The obstructive phenomena caused by Ama might have been corrected in this way. The effect of seronegativity is however not well understood except it counter acts the formation of Ama by increasing Agni which is established by clinical remission.

Keeping the above under reflection on the ground of improvement as well as statistical adjudication the result could be revealed as—

Complete remission — 1 Case (5%)
Maximum Improvement — 13 Cases (65%)
Minimum Improvement — 6 Cases (30%)
No Improvement — Nil (0%)

It thus concluded that Arsenic disulphide (Rasamanikya), is unfailing, effective against seropositive Rheumatoid Arthritis—Amavata (Kaphanubandhi).

REFERENCES

Dash and Das


In Hindi:

रस मानिष्य से आमबात की चिकित्सा

गोपकेश्वर आधुनिक महाविद्यालय, पुरी के स्नातकोत्तर काय चिकित्सा विभाग में आमबात के 20 सीरीज पारिमितिक रूप से रसमानिष्य के साथ गोदन्ति महम का परीक्षण किया गया। चिकित्सा द्वारा 5 प्रतिशत रूप से पूर्ण प्रभाव, 65 प्रतिशत रूप से अवस्थितिक प्रभाव तथा 30 प्रतिशत रूप से अल्प प्रभाव हुआ। लाभकारी प्रभाव के साथ ही ई. एस. बारे में कमी तथा बीतो पारिमितिक रूप से इसके स्तर की कमी पाई गई।

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