CLINICAL EVALUATION OF SAHACHARADI AND NIRGUNDI TAILAS IN SAISAVEEYAVATA (POLIOMYELITIS)

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ABSTRACT: A research trial was conducted at in-patient level to compare the efficacy of Sahacharadi taila with that of Nirgundi taila in Saisaveeyavata (Poliomyelitis). Forty cases were selected for the trial and grouped into two at random and treated with Sahacharadi taila and Nirgundi taila respectively. Results in both groups were highly encouraging and statistically significant. The study also revealed that 25% of patients had undergone Polio vaccination and it was not helpful to prevent the disease.

INTRODUCTION

Though Poliomyelitis (saisaveeyavata) affects people of all age groups, children within the age group of 4 years are more susceptible. In spite of rapid advancement in medical sciences and intensive immunization drives, still there is no effective way of controlling this disease completely. Thousands of children become victims of this disease every year. Hence every effort is needed to find out an effective remedy against this disease. Our Institute has undertaken intensive research trials on this disease and the results have been published in the Journal of Research in Indian Medicine, Yoga and Homoeopathy and Journal of Research in Ayurveda and Siddha. The studies have revealed that Ayurvedic treatment is highly effective in Poliomyelitis. The massage, internal and external application of Sneha (oils) gives good results in improvement of muscle growth and muscle power.

Clinical studies conducted with Sahacharadi taila (Sahacara 3 part, Devadaru 2 part and Sunti 1 part) and Nirgundi taila showed that they are very effective in the treatment of Khanja and Pangu and Gridharasi. Results were highly significant. Hence it was decided to conduct a clinical trial with Sahacaradi taila and Nirgundi taila in Saisaveeyavata to compare their usefulness.

MATERIAL AND METHODS

Forty children suffering from Saisaveeyavata were selected from the out-patient Section of our Institute and grouped into two at random (based on generation of random numbers). Sahacaradi taila and Nirugundi taila were selected for the trial. Both oils were prepared at the Institute’s Pharmacy as per the Ayurvedic classics. Children under group I were treated with Sahacaradi taila and group II with Nirgundi taila. Maximum duration of illness for admission was fixed as two years, and duration of treatment as 90 days for all patients. Diet, mode of administration of medicines, dose schedule, massage, etc.
were kept identical to all patients. The patients were selected on the basis of clinical signs and symptoms of lower motor neurone type of paralysis of limbs following fever. Routine examination of urine, stool and blood for total W. B. C. count, Differential count and Hemoglobin estimation were done before and after the trial in all cases. Assessment of improvement was done on the basis of structural and functional ability gained. An assessment chart was specially designed for this purpose (vide Criteria for assessment). Complete assessment was done and recorded. Appropriate general treatment was given as and when emergency arose as a result of intercurrent illnesses. Statistical analysis of the results was done by using students’t’ test and chi square test. Following treatment and diet schedule were prescribed for all patients.

CRITERIA FOR ASSESSMENT

All symptoms of the disease are taken into consideration and marks were allotted for criteria of assessment as follows: (1) Muscle power - 39, (2) Muscle wasting -25, (3) Muscle tone – 9, (4) Deep reflexes – Knee – 3, Ankle – 3, (5) Plantar reflexes – 4 (6) Deformities – 4 (7) Foot drop – 4, (8) Inversion of the leg – 2, (9) Apparent lengthening of the affected leg- 2, (10) Lateral rotation of the leg – 2 ad (11)Walking speed – 3. Each symptom was suitably graded to make assessment easy.

Result of treatment was graded as Complete relief (complete disappearance of signs and symptoms), marked relief (99% to 71 %), Moderate relief (70% to 41%), Mild relief (40% to 10%) (Percentage relief is inversely proportional to neurological score)

RESULTS

Complete relief was obtained in one patient, marked relief in two, Moderate relief in four and Mild relief in seven patients in Sahacharadi group (1) where as Complete relief in one patient, marked relief in four, Moderate relief in three and Mild relief in seven patients was seen in Nurgundi group (II). Six cases in group I and five cases in Group II did not respond o the treatment (Table I), Fig. 1, 2 & 3. Both groups showed significant improvement compared to initial clinical status. However there was no significant difference between the two groups (table II)

TREATMENT

Group I

Sahacaradi taila 10ml. at 7.00 a.m. and 5.00 p.m.
Sahacaradi Taila 30ml for abhyanga.
Massage for 30 minutes.

Group II

Nirgundi taila 10ml. at 7.00 a.m. and 5.00 p.m.
Nirgundi taila 30ml. for abhyanga

Massage for 30 minutes.
Diet

Morning – Milk 200ml. + 10gm sugar at 7 a.m. Kanji (100gm Rice.) + pickles at 9 p.m.
Noon      -  Rice 150gm. + vegetable 150gm. at 12.30 p.m.
Evening  -  Milk 150ml. + sugar 10mg. at 3.30 p.m.
Night      -  Kanji (100gm.Rice) + green gram 15gm./vegetables 150gm. at 7 p.m.

Table – I
Result of treatment

| Group | Complete relief | Marked relief | Moderate relief | Mild relief | No relief | Deteriorated | Total |
|-------|-----------------|---------------|-----------------|------------|-----------|--------------|-------|
| I     | 1               | 2             | 4               | 7          | 6         | -            | 20    |
| II    | 1               | 4             | 3               | 7          | 5         | -            | 20    |
| Total | 2               | 6             | 7               | 14         | 11        | -            | 40    |

Table – II
Effect of treatment on Neurological score

| Group | Before treatment Mean ± SEM | After treatment Mean ± SEM | P value |
|-------|-----------------------------|-----------------------------|---------|
| I     | 90.15 ± 8.37                | 66.50 ± 7.03                | P < 0.05 |
|       |                              |                             | P < 0.01 |
| II    | 81.85 ± 7.62                | 56.85 ± 9.14                | P < 0.05 |
|       |                              |                             | P < 0.01 |

Table – III
Blood investigations: Age Group: 3-4 years (Group I)

|                  | Before treatment Mean ± SEM | After treatment Mean ± SEM | P.value |
|------------------|-----------------------------|-----------------------------|---------|
| Total W. B. C. Count | 9650.00 ± 684.76           | 10177.77 ± 469.48          | P > 0.05 |
| / P              | 38.55 ± 3.47                | 37.88 ± 2.71                | P > 0.05 |
| D. C./ L         | 53.66 ± 3.73                | 58.44 ± 2.14                | P > 0.05 |
| / E              | 7.77 ± 0.81                 | 3.66 ± 1.05                 | P < 0.05 |
| Hb               | 73.33 ± 4.42                | 65.55 ± 3.17                | P > 0.05 |

The changes noted in total W.B.C. and differential count and Haemoglobin estimation were within normal limits and statistically not significant in either groups except for the reduction of eosinophils in 3-4 years age group in group I (table III).

Duration of the disease did not make and difference in the result of treatment. One fresh case did not respond to the treatment whereas certain chronic cases have shown good response (Table IV).

Table – IV
Duration – wise Result

| Duration of illness | Complete relief | Marked relief | Moderate relief | Mild relief | No relief | Total |
|---------------------|-----------------|---------------|-----------------|------------|-----------|-------|
| I                   | II              | I             | II              | I          | II        | I     |
| II                  |                 |               |                 |            |           | II    |
| Upto 15 days        | 1               | -             | 3               | -          | 2         | 1     | 1    | -    | 4    | 4    |
Table – V
History of Polio vaccination

| Group | Not vaccinated | Vaccinated |
|-------|----------------|------------|
|       | One dose | 2 doses | 3 doses | 5 doses |
| I     | 15       | 2       | 3       | -       |
| II    | 15       | 4       | -       | 1       | -       |
| Total | 30       | 4       | 2       | 4       | -       |

DISCUSSION

Seventy five percent of the children were not vaccinated against poliomyelitis (Table V). In group I, 2 patients had 2 doses of oral polio and 3 patients 3 doses whereas in group II, one patient had 3 doses and 4 patients had only a single dose. Poliomyelitis attack in these children was noted on the second / third day after vaccination and in some cases before the due date of next vaccination.

Occurrence of Poliomyelitis incidence in 25% of the vaccinated children shows that immunization may not afford protection to all children immunized. This may be due to reasons like faulty implementation of immunization, non compliance, usage of spoiled vaccine as a consequence of inadequate storage facilities etc. This emphasizes the need of having an effective therapy for treating the children afflicted with this disease. Result of this study shows that both Sahacaradi and Nirgundi taila are very effective in the treatment of Poliomyelitis. This and previous studies suggest that Ayurvedic remedies (therapy) have an important place in the treatment of Poliomyelitis. Data with us are meager for discussion about the possible mechanism of the relief obtained with the tailas. It could be beneficial if ground could be made to delineate it.

CONCLUSION

Sahacaradi taila and Nirgundi taila are found effective in Poliomyelitis and the results were almost same and statistically significant

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