INTRODUCTION

Polio myelitis is a challenging disease of the present era by which many children are becoming permanently disabled. Once it is attacked, the patient will become partially or completely dependent on others in his future life. Lot of work has been done in modern medicine regarding prophylaxis treatment and management of polio in developing countries.

Real speaking, first known description of polio in modern medicine was mentioned by Underwood in 1789. In 19th century epidemics have been noticed throughout the world by many scholars. Major part of the work is done in 20th century itself. In the year 1951, three types of polio virus was isolated and identified by Sabin. He has prepared live vaccine (Sabin) in 1958 to prevent polio and it can be given by mouth.

In management side many advances have been developed recently with sophisticated instruments. But it requires a lot of skilled staff and can be implemented in economically rich countries. Developing countries like India can not dream that type of sophisticated facilities to our poor patients. Moreover, these methods have been developed nearly 30 years back (Huck Step, 1982). After
that no major changes have been done in the line of treatment.

Huck Step (1975) has tried to develop certain procedures in management of polio myelitis particularly for developing countries. He has advised minor operations and appliances along with physio therapy to the chronic polio cases. Whereas, he has not mentioned any treatment to the acute cases except physiotherapy. Moreover, these procedures are not applicable in our underdeveloping country due to illiteracy and poverty many patients discard this line of treatment.

In modern medicine, except physiotherapy, there is no any oral or parenteral therapies to treat the polio myelitis patients. So far, a little work has been done in Ayurveda on these lines. Dr. Kasture (1982) has given orally antivatic treatment for acute polio cases and advised light massage and fomentation with pinda sweda along with oral medications for chronic cases. Snehana, pinda sweda and matra basti with maharayana taila was given to chronic cases and observed encouraging results by Sharma et al. (1983). There is a lack of medicines which can be used for early stage of polio so that the patient will get early relief and strength in the affected muscles to check further damage and deformities.

Looking into all these things it is extremely necessary to find out an Ayurvedic therapy helpful to acute
and chronic cases of polio myelitis.

Present study aimed to find out suitable treatment for acute and chronic cases along with simple appliances if necessary. As stated previously that, Balapakshaghata is one of the variety of Vatavyadhish and Basti treatment is the drug of choice, it can remove the root cause of the disease.

Among all the procedures matrabasti is the safest and uncomplicated one and can be given to any body and any time. Hence for present study, matra Basti has been selected to see the effect as well as to observe the complications even below one year children.

Patients and Method:

Patients attending in out patients department of Kayachikitsa were admitted after careful examination in I.P.D. For present study, the patients were selected irrespective of caste, religion, sex, age etc. All acute cases were admitted in I.P.D. except few chronic cases who did not get admitted due to some problems were examined carefully from Out-Patient Department itself. The O.P.D. cases, however, they have been advised to come every day for treatment.

Acute polio cases who were come within 8 days after attack, were kept with simple Jwara hara drugs like
guduchi, manjista etc. with complete rest for a period of 15 days. In some acute cases, specially in spinal variety, the emergencies like retention of urine and stiff neck etc. were treated according to the patients' condition.

All chronic cases were given Mrudu Abhyanga and Nirgundipatra Nadi swedan for a period of 15 days. After that, randomly divided the cases into different groups for further treatments.

The patients were preliminarily categorised into two main groups; Acute and Chronic. The patients kept in the Acute group were those who came to the Hospital within three months after attack of polio whereas rest were kept in the chronic group. In this study 102 cases were given treatment in different groups out of that 60 acute and 42 chronic polio cases were given the treatments in 4 groups each separately.

Criteria for selection of patients:

The detailed history of all the patients were taken in specially prepared proforma. In old cases (chronic cases), the parents have given the history of the polio and their previous treatments, whereas, in acute cases the careful clinical examination was done to rule out the meningitis, Encephalitis, Acute infective polyneuritis, pseudoparalysis and other viral infections. Cases were selected according to clinical symptoms mentioned in modern medicine.
**Treatments proposed for Investigation:**

**Treatment I:** In this group Bala tail Matra Basti in 30 ml dose was given continuously for a period of 15 days in Acute Balapakshaghata (polio) cases.

**Treatment II:** In this group, the acute Balapakshaghata cases were treated with 15 Bala taila Matra Bastis in 30 ml dose in alternate day.

**Treatment III:** Acute Balapakshaghata cases were received the treatment of 15 Tila taila Matrabastis continuously in 30 ml dose.

**Treatment IV:** Chronic cases of Balapakshaghata were received continuously 15 Bala tail Matra bastis in the doses of 30 ml.

**Treatment V:** In this group, chronic Balapakshaghata cases were treated with 15 Tila taila Matra Bastis continuously in 30 ml dose.

**Treatment VI:** Chronic cases of Balapakshaghata were received the Pindasweda for a period of 15 days regularly.

**Treatment VII:** In this group, the acute Balapakshaghata cases were treated with Bala tail Abhyanga and Nirgundi Patra Nadisweda for a period of 2 months.

**Treatment VIII:** Chronic Balapakshaghata cases were given the treatments with Bala tail Abhyanga and Nirgundi patra Nadisweda for a period of 2 months.
All the patients except acute cases complaining of fever were kept Mrudu Abhyanga with till taila and Nirgundi patra Nadi sweda for a period of 15 days. However, the acute cases with fever were given Guduchi, Manjista to subside the temperature with complete bed rest. After relieving the Jwara symptoms they were given Mrudus Abhyanga and Nadi sweda for a period of 15 days.

**Duration of treatment:**

Main treatment was given for a period of 15 days and to assess the results we have kept the cases another one month. Because Basti parihara kala has been advocated by our Acharyas is double period to the number of Bastis given. Mrudu Abhyanga and Nirgundi patra Nadi sweda were continued even after completion of the actual treatment. According to the patient requirements, simple splints are also applied to give maximum support to the affected limb and to avoid deformities in affected as well as in normal limbs.

**Diet:**

During the treatment the Hospitalized patients, who were above one year age were given light diets supplied by the Hospital. However the O.P.D. patients were advised to take light diet. Below one year children were given 1 litre milk per day supplied by the Hospital.
Management:

Hospitalised patients were examined twice daily and their improvement was recorded on their case sheets for every fortnight assessments. The out door patients were examined every day morning and improvement was recorded for every fortnight assessment.

PARAMETERS:

1. Clinical symptoms and signs were noted daily but assessment has been done after every 15 days only. For analysis we have scored the clinical data before and after the treatment.

2. After every 15 days, we have examined and noted the patient's postures, ability to stand, ability to walk.

3. To assess the individual muscle power, we have graded according to medical research Council (0 - 5) before as well as after every 15 days.

Muscle powers graded as below:

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<tr>
<td>0</td>
<td>Total paralysis</td>
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<tr>
<td>1</td>
<td>Ability to produce visible contractions but no movement of the joint.</td>
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<tr>
<td>2</td>
<td>Ability to carry out the movement but not against the gravity.</td>
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<tr>
<td>3</td>
<td>Ability to carry out the movement against gravity but not against additional resistance.</td>
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<tr>
<td>4</td>
<td>Ability to carry out full range of movement but not against resistance.</td>
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<td>5</td>
<td>Normal power.</td>
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4. Reflexes of the deep muscles were noted before and every 15 days.

5. Measurements have been noted before and after every 15 days treatment.

6. Body weight has been recorded before as well as after every 15 days of treatment.

Criteria for assessment:

At the end of the treatment the patients were classified in 4 groups, namely, (1) Complete cured
(2) Marked improvement (3) moderate improvement (4) mild improvement on the basis of their response to the particular drug with which they were treated. The criteria for each of these groups were as follows:

1. Complete relief:

The patients showing more than 75% relief in their signs and symptoms as well as muscle power improvement upto 5th grade with normal walking; no sign of emaciation and deformities were grouped as complete relief.

2. Marked improvement:

The patients showing more than 50% and less than 75% relief in their signs and symptoms and improvement of muscle power upto 4th grade without emaciation and contrac-
tion; walking with minimal limping were grouped as marked improvement.

3. **Moderately improvement**:

   The patients who got 25 to 50% relief in their signs and symptoms along with improvement up to 3rd grade in their muscle power, walking with maximum limping with or without support of manual power were kept in this group.

4. **Mild improvement**:

   The response of the patients signs and symptoms were less than 25% along with 1st, 2nd grade muscle power, improvement. The patients had ability to stand with the help of manual power or stick and ability to sit without help were kept in this group.

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