

## THE CASE STUDY ON CLINICAL EFFECT OF *RAJYAPANBASTI* ON ADEM WITH SPECIAL REFERENCE TO *SARVANGVYADHI*

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### ABSTRACT

Acute disseminated encephalomyelitis (ADEM), or acute demyelinating encephalomyelitis is a rare autoimmune disease, causes inflammation in the brain and spinal cord. ADEM also attacks the nerves of the central nervous system and damages their myelin insulation. There is destruction of white matter. It is triggered by a viral infection or, perhaps exceedingly rarely specific non-routine vaccinations. It is very uncommon and seen rarely. The incidence rate is about 0.4-0.8 per 100,000 people per year. It is mostly seen in the age group of 5 to 10 years.

18 years old male was reported with ADEM with further development of weakness in both upper limb and lower limb. In Charka Chikitsa weakness in both upper limb and lower limb is stated as *Sarvangvyadhi* which may be correlated with ADEM. In modern science steroid is the only treatment available for it which may lead to various side effects. As we go through ayurvedic text, *Rajyapanbasti* mentioned by *Ashtanghriday* in *kalpasthana* may useful for *Kati*, *Hastpad*, and *JanghaDuarbalya*. Properties of *Rajyapanbasti* took in consideration hence this concept taken in mind and use this *Basti* for evaluate the effect on ADEM. Patient get fruitful results which encouraging the Ayurveda field to use the various treatment mentioned in *Samhita* and yet not in use which also may useful in various diseases as per the concept of *Ayurved*.

**Keywords:** Acute disseminated encephalomyelitis (ADEM), *Rajyapanbasti*, *Sarvangvyadhi*

### INTRODUCTION

Acute disseminated encephalomyelitis (ADEM), or acute demyelinating encephalomyelitis, is a rare autoimmune disease

marked by a sudden, widespread attack of inflammation in the brain and spinal cord. As well as causing the brain and spinal cord to be-

come inflamed, ADEM also attacks the nerves of the central nervous system and damages their myelin insulation, which results in destruction of white matter. It is often triggered after the patient has received a viral infection or, perhaps exceedingly rarely specific non-routine vaccinations. The incidence rate is about 0.4-0.8 per 100,000 people per year<sup>1</sup>. Although it occurs in all ages, most reported cases are in children and adolescence, with the average age around 5 to 8 years old. Is an acute inflammatory demyelinating disease of CNS. It is usually monophasic disease. Onset is acute. Neurological dysfunction is either multifocal or focal. Most commonly affects young adults and children. Sex distribution – possible male preponderance. Common Causes of ADEM -Post infectious like viral infections such as Varicella, Rubella, Herpes Zoster. Infectious mononuclear. Bacteria- Mayo-plasma, Gram negative organism, Salmonellatyphi. Protozoa - Cerebral malaria. Pathology of ADEM following infections and post vaccination is indistinguishable in each other. Grossly the brain and spinal cord are congested and swollen<sup>2</sup>. Sectioned brain on examination may show prominent vassals in white matter. Clinical Features are Headache, vomiting, Fever, Confusion, Meningism, Focal or multifocal brain and spinal cord sign may be present, Seizures or coma may occur.<sup>3</sup>

18 years old male was reported with ADEM with further development of weakness in both upper limb and lower limb. In Charka Chikitsa weakness in both upper limb and lower limb is stated as *Sarvangvyadhi* which may be correlated with ADEM. In modern science steroid is the only treatment available for it which may lead to various side effects. As we go through ayurvedic text, *RAJYAPANBASTI* mentioned

by *Ashtanghriday* in *kalpasthana* may useful for *Kati, Hastpad, and JanghaDuarbalya*. Properties of *Rajyapanbasti* took in consideration hence this concept taken in mind and use this *Basti* for evaluate the effect on ADEM. Patient get fruitful results which encouraging the *Ayurveda* field to use the various treatment mentioned in *Samhita* and yet not in use which also may useful in various diseases as per the concept of *Ayurved*.

#### **AIMS AND OBJECTIVE:**

1. To study Combine effect of *Rajyapanbasti* and other *Ayurvedic medicine* on ADEM (~*SarvangVyadhi*).
2. To study the effect of *ShamanaChikitsa* on ADEM (~*SarvangVyadhi*).

#### **PLAN OF WORK:**

The clinical study of this research work was conducted in the I.P.D of Government *Ayurved* Hospital

1. The patient was suffering from ADEM admitted in I.P.D of Government *Ayurved* Hospital.
2. First of all *RukshanDravyas* decoction 40ml BD was given to the Patient after that observe the patients *Agni*. After that *BahyaSnehan* with *TilTaila* and *Swedan* with *Dashmoolkwath* was started to the patient. *Bruhatwatchintamnikalp* (*Bruhatwatchintamaniras, Guduchisatva, Chopchini churn*) with *Madhu* 5gm BD was given for period of 21 days along with *Katibasti* with *TilTaila*. But not get satisfactory results, then *Rajyapanbasti* was given to the patient for the period of 15 days along with *katibasti* and *Bruhatwatchintamnikalp*.
3. Assessment of pre and post clinical sign and symptoms on the basis of subjective and objective criteria

## CASE REPORT:

An 18 year old male patient came at Government Ayurved Hospital presenting with complaint of

1. *UbhayaHastpadaDaurbalya*
2. *UbhayaHastpadaSakashtakriya*
3. *Asamyak Chankramn.*
4. *UtkutasanAsamrthata*
5. *Katishoola*
6. *Shool Chankraman.*

These complaints were from 10 months. Patient was absolutely normal before 10 months. Then suddenly develops high grade fever with severe headache which is followed by weakness of both Upper and Lower limbs. For that he taken treatment at PHC; details of medication not documented, hence for further management he came to higher centre that is Govt. Medical Hospital, Nagpur. There he has diagnosed as ADEM for that he was treated with Inj. Prednisolone in tapering way for 7 days and other necessary management. After that treatment fever subsides but weakness in both Upper and Lower limbs persist. He develops difficulty in walking and sitting. Hence for further treatment he approached to Govt. Ayurved hospital, Nagpur and got admitted on dated 13/7/2016.

There was No H/O HTN, DM, Epilepsy Fall /trauma/ RTA; any recent vaccination.

Patient vitals were within normal limits. *AshatwidhParikshana*, *DashvidhParikshana* was normal. No, such hereditary history found, His personal *AaharVihar* was normal mostly took *VataprakopakAahar* and *Vihar*. With no any addiction. Bowel habits, Micturation, appetite, sleep were normal. Examination of respiratory, cardiovascular system was within normal limit.

Central nervous System: Conscious, well oriented

Cranial Nerves Examinations: All cranial nerves examination was within normal limit

Clinical Examinations

Gait- Steppage

Muscle Power Grade

- Right Upper Limb and Lower Limb- 4/5
- Left Upper Limb and Lower Limb-4/5

Reflexes

	Rt.	Lt.
1. Biceps.	Exaggerate	Exaggerate
2. Triceps.	Exaggerate	Exaggerate
3. Supinator	Exaggerate	Exaggerate
4. Knee.	Exaggerate	Exaggerate
5. Ankle	Exaggerate	Exaggerate

➤ SLRT. Rt. Lt.  
30° 30°

➤ Glabalar tap - Negative

➤ Rhomberg's sign- Positive

➤ Ankle Clonus- Present on both side

➤ Patellar Clonus- present on both side

MRI Brain and SPINE

MRI Brain Plain and contrast study reveals bilaterally symmetrical white matter hyperintensities in posterior periventricular, centrum semiovale and bilateral occipital lobes as described above s/o demyelination (?? Toxic? Ischemic)

According to patient's complaints and all over examination we diagnosed as per Ayurved point of view it as *Sarwang Vyadhi*<sup>4</sup> stated by *NidanaPanchaka*:

➤ *Nidana: SanikrusthaHetu: Jwar, VipakrusthaHetu: VatavardhkAahar, Vihar (Atichnkramn, Vyayam, RukshaAahar)*

➤ *PurvaRupa: Bhram, Katidaurblya, UbhayaHastpada Daurbalya*

➤ *Rupa: Ubhay Hastpada Daurbalya, UbhayHastpada*

*Kriyalpta, SakshtUtkutasan*

➤ *Upashaya: Alpaupshay.*

*SampraptiGhataka:*

➤ *Dosha: Vata (Praana, Vyana,) Kaph (Tarpak)*

➤ *Dushya: Majja*

➤ *Strotodushti: Majjavaha*

➤ *Agni: Madhyam*

➤ *Udbhavasthan: Shir, Merudanda*

➤ *Sancharasthan: UbhayHastpada*

➤ *Vyaktkasthana: UbhayaHastpada*

➤ *Adhithana: UbhayHastpada*

➤ *Rogamarga: Madhyam*

➤ *Sadhya- KrichhSadhya*

And we decided to give *Rajyapanbasti* to the patient, along with *shaman Chikitsa*.

### **RajyapanBasti**

This basti is stated by *Ashtang hridaya*<sup>6</sup>. Its indications are *Uru, Kati, Pada, Janghadaurbya*. and specially for *vatprakokaVyadhi*, hence we decided to use this.

### **Content:**

*KwathaDravya – Musta (Cyperusrotundus), Patha (Cissampelospareira), Guduchi (Tinosporacardifolia), Bala (Sidacardifolia), Rasna (Pluchealanceolata), Punarnava (Boerhaviadiffusa), Manjishta (Rubiocardifolia), Aaragvadhaha (Cassia fistula), Ushir (Vetiveriazizanioides), Trayamana (Gentianakurroo), Kutaki (Picrorhizakurrooa), Laghupanchmoola, Ma-*

*danphala (Randiadumentorum).* All taken in same *matra*.

*Kalka Dravya – Yashtimadhu (Glycyrrhizaglabra), Mishi (Foeniculum vulgare), Priyangu (Callicarpamacrophylla), Indrajau (Holarrhenaantidysentrica), Rasanjan (extract of Barbarisaristata), Kshira, JangalMansarasa, ghi, Madhu, Sendhaiv.*

### **Method of preparation:**

*Kwath* (~ decoction) was prepared from *kwauthdravya* in 200ml water, it prepared under heat upto 100 ml water remain.

Then 300ml milk was added and again prepared upto 300 ml remain left. Then 100ml *JangalMansrasa* was added into it.

Then 15ml *Madhu* was taken into bowel then added 5gm *Saindhav* was mixed well then 40ml *Ghrita* (ghee) was added and mixed well then *Kalka Dravyas* was added then *Quathdravya* was added and was mixed properly.

Procedure of administration *Basti*: In morning after *SarwangSnehan* and *Nadiswedan*, *Rajyapanbasti* was given to the patient in left lateral position as per mentioned in *sanhita*.

### **Observations:-**

*Basti Dharankala* was observed upto 3 to 4 hour in the patient. This *Basti* was given to the patient for 21 days. Along with following *Shaman Chikitsa*. No any other side effects were observed.

**Table 1: Showing Bastipatrak**

Sr no	Date	Basti given	Matra	BastiDharan Kala
1	17/7/2016	Rajayapnbasti	450ml	3 hrs
2	18/7/2016	Rajayapnbasti	450ml	2 hrs
3	19/7/2016	Rajayapnbasti	450ml	4 hrs
4	20/7/2016	Rajayapnbasti	450ml	3hrs
5	21/7/2016	Rajayapnbasti	450ml	3hrs
6	22/7/2016	Rajayapnbasti	450ml	2hrs
7	23/7/2016	Rajayapnbasti	450ml	6hrs

8	24/7/2016	Rajyapanbasti	450ml	6hrs
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This Basti was given upto 21 days.  
 SarwangSnehanSwedan.  
 RukshanKwath. 40 ml /BD for 10 days  
 Kati Basti with TilTaila for 21 days  
 Bruhatvatachintamanikalpa  
 RajyapanBasti 400 ml for 21days

**MPG after Treatment**

	Rt.	Lf.
UL	5/5	5/5
LL	5/5	5/5

**SLRT after Treatment –**

	Rt.	Lf.
	45°	45°

Reflexes are not improved after treatment.

**Result:** The patient is symptomatically improved, the subjective as well as objective parameters show improvement in some extent. The intensity of those symptoms which got reduced are

1. UbhayaHastpadaDaurbalya
2. UbhayHastpadaSakashtakriya
3. AsamyakChankramn.
4. UtkutasanAsamrthata
5. Katishoola6.Sshool Chankraman. Patient realize near about 60% relief in above said symptoms which he never feels in last 10 months after Chikitisa. So we can say that this treatment is helpful in ADEM induced weakness and study will be done on large population



**Table 2: Before And After Treatment Assessment**

SR. NO.	Clinical Examination	Before Treatment	After Treatment
1.	Gait	Steppage	Steppage
2.	MPG	UL 4/5 in both rt&lf.	UL 5/5 in both rt&lf.
3.	SLRT	Rt. & Lf. 30°	Rt. & Lf. 45°
4.	Reflexes	Exaggerated	Exaggerated
5.	Rhombergs Sign	Positive	Positive
6.	Tandam Walking	Positive	Positive



## DISCUSSION

*RajyapanBasti* is a nutritive *basti* mainly work on *vatavyadhi*. Drugs used for preparation are mainly *Madhur, Guru, Snigdha, Balya* in nature. They are helpful to improve the power of muscles. When it was given with above shaman Chikitsa we got very fruitful and good results. It disturbs life style of patient and hampers day to day activity, No management of ADEM is mentioned in Ayurvedic texts.

## CONCLUSION

It was getting fructuous and encouraging result. In above discussion and result we can say that this therapy is effective in ADEM induced *Sarvagvyadhi* and *katigraha* and it will be done in large population.

As this is a single case study the same intervention can be used on larger population to see the efficacy of *Rajyapanbasti*.



Picture mid –in treatment



Picture after treatment

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