Case Study

ANTEROGRADE AMNESIA (SMRITI VIBHRAMS) AYURVEDIC TREATMENT: A CASE STUDY

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ABSTRACT

Anterograde amnesia is the inability to acquire and retain new information. Amnesia has an incidence of 5 per 1,00,000 population per year. It usually effects patients between the age of 40 and 60 years, at an average age of 61 years. The disease anterograde amnesia and smriti Vibhrams are similar in their etiology, sign and symptoms. Smriti Vibhrams refers to a state characterized by deviation from normalcy this means either reduced memory or selective memory. In this case a 36-year-old male having chief complained is unable to retain knowledge, poor concentration and disremembering. Neurological exam and psychological test have been done for the proper diagnosis. With the help of this we diagnosed Anterograde amnesia vis-à-vis Smriti Vibhrams. Treatment includes Sadhyovamana, Classical Virechana, Pratimarsha nasya and oral medications. The treatment was found to be good in Anterograde amnesia. Patient got 40-50% relief. This was a single case study, and a single case study may not be sufficient enough to prove significance of any treatment, but it gives an idea for the line of treatment to be adopted in such cases.

Keywords: Anterograde Amnesia, Smriti Vibhrams, Smriti Sagar Rasa.

INTRODUCTION

Amnesia is described as a multifaceted disorder with a frequently poor prognosis. It is an abnormal mental state in which memory and learning are affected. Usually caused either by physical injury to brain or by the ingestion of toxic substances which affects the brain. In addition, the memory loss can be caused by traumatic, emotional event shock, illness or sometimes induced by anesthesia. There are mainly two form of amnesia i.e., anterograde amnesia and retrograde amnesia. Anterograde amnesia refers to the inability to acquire and retain new information. People with anterograde amnesia syndrome may present with widely varying degrees of forgetfulness. Forgetting or disremembering is the apparent loss of individual's short- or long-term memory. Problems with remembering, learning and retaining new information are a few of the most common complaints of persons.[1] Amnesia has an incidence of 5 per 1,00,000 population per year. It usually affects patients between the age of 40 and 60 years, at an average age of 61 years. It has no male and female preponderance.[2]

Memory is the basic requisite to attain the knowledge. Ayurvedic literature has given the importance to smriti in the perception of knowledge. Smriti is remembrance and memory. In many of the diseases of brain memory of the person gets affected and loss or diminished memory will be the major clinical symptom in such disease.[3]

In Ayurveda this can be correlate with Smriti Vibhrams because it refers to a state characterized by deviation from normalcy, this means either reduced memory or selective memory or total loss of memory.[4]

In our classics, specific pathophysiology of smriti Vibhrams is not explained but information with excessive *raja* and *tamo* gunas and pitta is vitiated along with vata and kapha doshas then the smriti Vibhrams will manifest.[5]

Ayurveda has a holistic approach towards and disease and just suppressing the symptoms would mean as incomplete therapy. A scientific research is necessary to study new challenges of health and Ayurveda. In such increasing globalization, comparative literacy studies are an excellent foundation for further research.[6] Due to least work in this field we have considered smriti Vibhrams similar to anterograde amnesia because of similar sign and symptoms. Ayurvedic treatment protocol is primarily focused on normalizing the vitiated doshas by means of shodhana and shaman therapy. Vamana helps in removing vitiated kapha along with pitta- virechana for the elimination of the pitta dosha. Rasayana, smriti sagara rasa is the ideal treatment for the memory loss.

MATERIAL AND METHODS

Case detail

This case study of 36 years old male patient who attended the OPD of Ayujyoti Ayurvedic College and Hospital, Jodhpuria, Sirsa, Haryana, India during the period of 7 February 2020 to 22 February 2020 with the complaints he is unable to retain knowledge, poor concentration and disremembering since last 14 years. In 2006, he had head injury due to a car accident. After that the problems which I shared have started minimally. Study is carried out as per international conference of Harmonization- Good Clinical Practices Guidelines (ICH-GCP) or as per declaration of Helsinki Guidelines.

Examination

Neurological exam and psychological test have been done for the proper diagnosis.

Preparation for test

We advised patient

- Having proper sleep at night.
- Eat good breakfast.
- Don't drink alcohol in the night before test.

- Do not have any medications including sleep medicine the night before.
- Don't panic for your results and relax your mind.

After preparation we conducted general assessment of memory and cognitive ability such as Mini mental state examination, Wechsler memory scale revised. For this we asked questions in the order listed.

Table 1: Questionnaire

S. No.	Question	Maximum Score
1.	Which is this year? Season? Date? Day of week? Month?	5
2.	Where are we now: State? Country? Town/City? Hospital? Floor?	5
3.	Names of Three unrelated objects clearly and slowly then ask the patient to repeat them. No. of trials-	3
4.	Count backward from 100 by sevens (93,86,79,72,65) stop after 5 answer.	5
5.	Told the name of three things to the patient and then asked.	3
6.	Repeat the phrase: No ifs, ands, or buts.	1
7.	Please read this and do what it says (Written instruction is "close your eyes")	1
8.	Make up and write a sentence about anything (sentence must contain a noun and a verb)	1
	Total Score	**24**

With the help of questionnaire our patient score was 16. Smriti Vibhrams is examined by Anumana pramana. In the examination of memory, we used the methodology of direct interrogation by asking the past experience regarding that matter and by chanting different Shastra sloka.[7]

With the help of this we diagnosed Anterograde amnesia vis-à-vis Smriti Vibhrams and patient is advised for Sadhyo Vamana followed by classical Virechana, Pratimarsha Nasya, Rasayana, and Shaman aushadhas.

Treatment plan

Planned Sadhyo Vamana followed by classical Virechana, Rasayana Karma, Shaman aushadhas and satvavajaya chikitsa.

Table 2: Shodhana Chikitsa

1.	Sadhyovamana with Madhuodak and Saindhava jala	Vega - 4
2.	Deepan- Pachana with Pippali Churna (4 gm) + Guda (5 gm) + Jeerakasava (15 ml) TID with equal amount of water till Samyak agni deepti.	2 days
3.	Snehapana with Brahmi ghrita	1st day - 40 ml 2nd day - 50 ml 3rd day – 65 ml 4th day - 290 ml 5th day – 760 ml
4.	Sarvanga abhyanga with Brahmi taila followed by hot water bath	3 days in Vishrama kaal
5.	Virechana with Trivrit Avleha (50 gm) + Pippali Churna (10 gm) + Yavakshara (5 gm) + Shunthi (5 gm) Haritaki Churna Kwath as virechanopaga (prepared from the 30 gm of Haritaki powder)	Veg-25

Table 3: Shamana Aushadha

1.	Smriti Sagar Rasa	1 BD (after food)
2.	Rasayana i. Vardhman Pippali Rasayana ii. Ritu Haritaki iii. Shankhapushpi Rasayana	Increasing up to 10 Pippali Guda + Haritaki Shankhapushpi kalka with milk
3.	Pratimarsha Nasya	With anu taila

Table 4: Satvavajaya Chikitsa

1.	Yoga Asana	Padmasana, Suryanamaskara
2.	Yoga Mudra	Gyana Mudra

Table 5: Assessment Parameter

Score	Interpretation
< 18	Abnormal
< 15	Increased odds of dementia
15	Abnormal for 8th grade education
< 17	Abnormal for high school education
< 18	Abnormal for college
18-24	No cognitive impairment
12-17	Mild cognitive impairment
0-11	Severe cognitive impairment

RESULT AND DISCUSSION

Table 6: Observation before and after the course of treatment

Question	Before treatment	After treatment
Which is this year? Season? Date? Day of week? Month?	5	5
Where are we now: State? Country? Town/City? Hospital? Floor?	4	5
Names of Three unrelated objects clearly and slowly then ask the patient to repeat them. No. of trials-	1	2
Count backward from 100 by sevens (93, 86, 79,72,65) stop after 5 answer.	3	3
Told the name of three things to the patient and then asked.	2	2
Repeat the phrase: No ifs, ands, or buts.	0	0
Please read this and do what it says (Written instruction is "close your eyes")	1	1
Make up and write a sentence about anything (sentence must contain a noun and a verb)	0	1
Total Score	**16**	**19**

Patient had Madhyama Shuddhi in virechana so for 5 days he did Samsarjana karma**.** Shamana aushadha started after the samshodhana. In Shamana aushadha Vardhmana Pippali Rasayana started up to ten Pippali in increasing and decreasing order. After that Smriti Sagar Rasa started for 3 months. After 3 months stop the smriti Sagar rasa and then started Ritu Haritaki and Shankhapushpi Medhya Rasayana. Patient got 40-50% relief.

Sadhyovamana is a procedure where vamana is carried out immediately without following any poorvakarma. It is done to remove the vitiated kapha dosha along with pitta. It also helps in opening of srotas. So, we did Sadhyovamana to remove the srotas blockage.

Pippali having Deepan Pachana and srotoavrodhahara property and it is Medhya. Guda is agnijanana, aamayashodhan, balances vata dosha and decrease pitta dosha slightly. Jeeraka is Deepan Pachana and vata anulomaka. So, we used this combination for Deepan Pachana.

We gave our patient more amount of sneha in Snehapana for 5 days because his body has Rukshata that is why it absorbed more Sneha due to this his body showed Samyak snigdha lakshana. Here classical virechana is main because pitta dosha is vitiated mainly along with kapha and vata. Trivrit avleha is purgative in nature and balances mainly the pitta dosha along with kapha and vata. Yavakshara is katu, ushna, ruksha, sara and it balances kapha and vata dosha. Haritaki is mridu rechaka, anulomaka, medhya and balances all the three doshas. This combination because of their laghu, katu, sara, ruksha guna increases bowel movements and do Anulomana. Brahmi ghrita contain *Bacopa monnieri, Acorus calamus, Convolvulus pluricaulis, Saussurea lappa* and ten-year-old cow clarified butter. *Bacopa monnieri* is medhya and smritiprada. *Convolvulus pluricaulis* improves learning, memory and clarified butter is memory enhancer. So, we use this in Snehapana. For abhyanga Brahmi taila is used because its main ingredient is Brahmi which is medhya and it pacify the pitta and kapha dosha. Smriti sagara rasa balances vata, pitta, kapha and mostly used in the treatment of memory loss, epilepsy and neuropathy. Pippali taken in Vardhman karma having many benefits such as medhya, rasayana, brihman, ayu hitkari and vaya sthapanam. Ritu Haritaki balances the aggravation of all three doshas in body. Shankhapushpi rasayana enhancing all three aspects of the mind – Dhi (learning), Dhriti (memory), Smriti (recall). Anu taila is used in the treatment of Urdhva jatrugata roga and has Tridosha balancing effect.

CONCLUSION

It is concluded that Anterograde amnesia (smriti Vibhrams) is memory and learning disorder. In this vata, pitta and kapha are vitiated. Therefore, to pacify these doshas and for enhancing memory power and concentration we adopted all above said treatment.

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