



Study of Sida Cordifolia in management of senile dementia-a single case study

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Introduction :- Ayurveda is holistic science which consider spritual and emotional well being along with physical well ¹. *Sharir* and *mana* are the seats of disease². *Smriti* is important to prevent ones from indulging in *prajnapradha*. *Smriti vibhramsha* could be a burden on the individual and society as well³. *Smriti* leads to prevention of unpleasant experiences hence leads to a blissfull state of mind⁴. Acharya Charak mentioned eight means to develop *smriti*.

Dementia :- Dementia is a chronic mental illness characterized by intellectual disabilities, impairment of memory especially of recent events and deterioration of personality. In such patients recent memory is impaired at first, remote memory may get affected in later stages⁵. Incidence of dementia increases with age. Chances of dementia are more in age more than 65 years⁶. Dementia originally meant “out of one’s mind”. It is derived from latin where “de” means out of and “mens” means the mind⁷.

Dementia in Ayurveda :- *Smriti* means memory or remembrance and *bhramsha* means decline, decrease or disappearance⁸. Acharya Charak mentioned *Smriti bhramsha* is the cause to *dukha* and *vedana*⁹. *Smriti* is essential for prevention of *prajnapradh*. As mentioned in Charak shareer *Raja* and *Tamas* are responsible for *smritibhramsha*. *Smriti* affected by *Raja* and *Tama dosha* leads to *smritibhramsha*, where memory of individual is impaired ¹⁰.

Rukshalpa sheetanna virekdhaturkshya upvas aniloativruddhaha

Chintadijushtram hridayam pradushya buddhim smrutim chapyuphanti shighram

Intake of food that is *ruksha*(dry),*sheeta*(cold) or *alpa* (less in quantity than required).*Shodhan atiyoga*, *upvas*, *dhatukshaya*, *chinta* these lead to vitiation and increase of *vata dosha* hence causing *smritibhramsh* ¹¹. *Pranavrutta vyaan* also leads to impairment of *smriti* and *buddhi* ¹².

Sida Cordifolia (*Bala*) belongs to *balya*, *bruhaniya*, *madhurskandh* and *vatasamshman gana*. It has *madhur rasa*, *madhur viapaka* and *sheeta virya*. *Sida Cordifolia* is *laghu*, *snigdha* and *picchil*. As per the properties of *Sida Cordifolia* is predominantly *vatasamshaman* ¹³

Materials and method :- *Sida cordifolia* i.e. *Bala* is used for management of *smritibhramsha* (senile dementia).

Case :- A 70year old male patient was presenting complaint of *smritibhramsha* (loss of memory), because of that he was unable to recognize his relatives, sleeplessness. Many times patient forgot his way to home. He would forget about doing daily task like brushing or bathing. His relatives had to stop him from going in fields as he used to forget his way back to home. Patient was cachexic in appearance, *twak rukshata*, *pralap* (irrelevant talk).

His *hetu* were *alpa*, *ruksha anna sevan*, frequently working empty stomach in rice fields(*upvas*,*sheeta samparka*), *ratri jagrana*, *pravas*(excessive travelling). Patient also had history of alcohol consumption and tobacco chewing. All these *hetu* indicate towards *dhatukshyajanya vata prakop*. Here we opted for *bruhan and vatasamshaman chikitsa*. For management we chose *Bala* as *ekal dravya* in different form as *tailam* for *basti*, *nasya*, *shiropichu* and *padabhyanga*. Along with *Bala kshirpaka*. All of the above treatment was given for two months.

Results :- Follow up of patient was taken at and interval of 15 days then after 45days and then after 15 days. After 15 days there was significant improvement in the patient in terms of memory. Along with that his *twak rukshata* was less. He started recognizing his relatives. Next follow up was taken after a month and at that time he was able to recall everything he did in whole day also he started to recognize his relatives. He was able to do his own chores like brushing or bathing and taking his meals on time. After that we only continued *bala kshir paka bala nasya* and *bala padabhyang* for next 15 days. At the end of 2 months he started going in *satsang* on his own and he also participated in camps that were held in his village. His sleep improved.

The patient was assessed before and after treatment on the basis of Clinical dementia rating scale (CDR scale). This scale is based on consideration of six domains those are memory, orientation, judgement and problem solving, community activities, home and hobbies, personal care. The gradations in this scale are 0- no impairment, 0.5 – questionable , 1- mild , 2- moderate and 3- severe . The score will be calculated out of 18 ¹⁴.



CDR Score	0 Healthy	0.5 Very Mild Impairment	1 Mild	2 Moderate	3 Severe
Memory	No memory loss or slight inconsistent forgetfulness	Consistent slight forgetfulness; partial recollection of events; "benign" forgetfulness	Moderate memory loss; more marked for recent events; defect interferes with everyday activities	Severe memory loss; only highly learned material retained; new material rapidly lost	Severe memory loss, only fragments remain
Orientation	Fully orientated	Fully orientated except for slight difficulty with time relationships	Moderate difficulty with time relationships; may have geographic disorientation elsewhere	Severe difficulty with time relationships; usually disorientated in time, often to place	Orientated to person only
Judgment Problem Solving	Solves everyday problems and business affairs well; judgment good in relation to past performance	Slight impairment in solving problems, similarities, differences	Moderate difficulty in handling problems, similarities, differences	Severely impaired in handling problems, similarities, differences	Unable to make judgments or solve problems
Community Affairs	Independent function at usual level in job, shopping, volunteer and social groups	Slight impairment in these activities	Unable to function independently at these activities though may still be engaged in some	No pretense of independent function outside home Appears well enough to be taken to functions outside a family home	No pretense of independent function outside home Appears too ill to be taken to functions outside a family home
Home & Hobbies	Life at home, hobbies, intellectual interests well maintained	Life at home, hobbies, intellectual interests slightly impaired	Mild but definite impairment of function at home; more complicated hobbies abandoned	Only simple chores preserved; very restricted interests, poorly maintained	No significant function in home
Personal Care	Fully capable of self care	Fully capable of self care	Needs prompting	Requires assistance in hygiene, keeping of personal effects	Requires much help with personal care

Before treatment his CDR score is as follows

Domains	Score
Memory	3
Orientation	1
Judgement and problem solving	3
Community activities	3
Home and hobbies	3
Personal care	3
Total	16

Initially the patient was unable to recall recent or past events he was even able to recognize his family and friends hence the memory was severely impaired. His forgetfulness of his way back to home suggest mild impairment of his orientation with respect to his geographic location. As he was unable to recall events happened and his family and fellows, he was unable to solve any problem and hence his judgement and problem solving is severely impaired. He stopped going to any gatherings or events held in his village as he would not recognise people and his route hence his community activities were also severely impaired. His forgetfulness of daily tasks like brushing and bathing suggest severe impairment of his personal care.

After 15 days of treatment his CDR score is as follows

Domain	Score
Memory	2
Orientation	0.5
Judgement and problem solving	2
Community activities	2
Home and hobbies	2
Personal care	2
Total	10.5

After 15 days a follow up was done and it was evident that the patient was able to recall few past events occasionally and a few things he used to do everyday. He was able to understand his environment and started recalling his relatives. Yet his daily functions were yet to be fully restored.

After 30 days of treatment his CDR score is as follows

Domain	Score
Memory	1
Orientation	0.5
Judgement and problem solving	1
Community activities	1
Home and hobbies	2

Personal care	2
Total	7.5

After 30 days while taking follow up patient was able to recall most of his past events though memory of recent events was still doubt full. He was able to recognize his family and relatives. His ability to do personal chores were yet to be fully recovered.

After 45 days of treatment his CDR score is as follows

Domains	Score
Memory	1
Orientation	0
Judgement and problem solving	0.5
Community activities	1
Home and hobbies	1
Personal care	0.5
Total	4

After 45 days patient was fully able to recall both past and recent events. Very recent events were a bit doubtful. Patient was fully oriented with respect to his geographic location. He was able to recall roads of his village. He started going to gathering held in his village.

After 60 days of treatment his CDR score was

Domain	Score
Memory	0
Orientation	0
Judgement and problem solving	0
Personal care	0
Home and hobbies	0
Community activities	0
Total	0

After 60 days of treatment patient was able to recall past events and his family and friends. His orientation with respect to his geographic location improved he started going to the farms and events on his own. Because of recalling past events and people around him he was able to understand his surrounding, he was able to find his way back home from places. He started doing his daily chores like he used to do before. He would go to satsangs and camps that were held in his village.

Discussion:- This is a case of senile dementia(*smriti bhramsha*), his chief complaint was loss of memory, unable to recognise his relatives, unable to do his daily chores and he would forget his way to home, sleeplessness. Along with that patient was very lean and thin, irrelevant talking(*pralap*) and *twak rukshata*. His *hetu* included *ruksha anna sevan, upvas, sheeta samparka, ratri jagran and pravasa*. From what *hetu* we found in this patient it is clear that all of them leads to *vata prakop*. *Vayu is trantra yantra dhara* which means *vayu* in it's non vitiated state holds the whole body and it's parts. It is regulator of *mana* and *indriya*. *Vayu is dhatuvyuhakara and sandhankara* which means it promote *dhatu* to do there work and hold them together¹⁵. When this *vayu* that

resides in body is vitiated due to any external or internal factors it vitiates *manas* and *indriya* along with. This vitiated *vata dosha* leads to *pranavrodh*¹⁶. In the above mentioned case all *hetu* lead to *vata prakop*. *Bala* is *vatasamshman*, *bruhaniya* and *balya dravya*. All these properties helped in treatment of above case. The *madhur rasa* and *madhur vipaka*, *snigdha* and *picchil guna* of *bala* lead to *vatasamshman*. *Snigdha*, *picchila guna* and *madhur rasa* and *vipaka* lead to *dhatu bruhan*¹³ which helped to overcome *dhatu kshaya*. Once the *dhatu kshaya* was fulfilled it's *balya* karma was seen. *Mastishka* is one of the *majja dhatu pradhan avayav*¹⁷ *Madhur rasa* increases *rasa*, *rakta*, *mamsa*, *meda*, *asthi*, *majja*, *oja*¹⁸. *Basti* made of *bala* was given to the patient and *basti* itself is *pradhan karma* for *vata dosha*¹⁹. *Bala tailam* used for *nasya* and *padabhyang*. *Nasa hi shiraso dwaram*, this is explained by *Acharya vagbhat* that explains how *bala tail nasya* helped in this patient. *Bala kshirpaka* was administered to this patient, now *khsir* itself is *vatahar*, *dhatu* and *oja vardhak*²⁰. That is why it enhanced the properties of *bala* in *kshirpaka*.

Conclusion :- *Smriti bhramsha* is explained in texts in various context. It is a gradual deterioration of mental health of a being. There could be many reasons behind *Smriti bhramsha* one just needs to have a keen observation to find out the root cause. *Bala* is a *balya dravya* that means it is going to provide strength to body tissues and that is what we have seen in this case. Besides *bala* was used in formulations like *nasya*, *kshirpaka*, *basti*, *shiropichu*, *padabhyang* which increases it's potency in treatment.

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