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Role Of *Madya* In Anaesthesia

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ABSTRACT:

Sandnyanash is very important concept regarding surgery. Not a single surgical intervention or procedures can be imagined without anesthesia. *Sushruta samhita* the classical ayurvedic literature written by acharya *Sushruta* described the various surgical instruments, their utility as well as different procedures of surgery along with plastic surgery. The description of *sandnyanash* is not described in details in *sushruta samhita* as well as other classical literatures. *Sushruta* is also called as the 1st founder of surgery and father of plastic surgery. Various surgical procedures can not be done without the use of *sandnyanash*(anesthesia) in ancient time too. But the description of *Sandnyanash* in the ancient text is not in details. It is one of the reason why the modern surgical knowledge have been so developed and how the Ayurvedic surgeries lag behind in this era of diseases. Anesthesia (*sandnyanash*) has play a very crucial role in the surgery from thousands years. Acharya Charak, *Sushruta*, *Vaghbata* proposed that *madya* has very important role in *sandnyanash* as a pain relieving medicine which is thoroughly matched with the *anaesthetic* effect of the alcohol. The present review paper is the effort to show the role of *madya*(alcohol) in *sandnyanash* or anesthesia.

Keywords: *Sandnyanash*, Alcohol, Surgery, Anesthesia, *Madya*.

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INTRODUCTION

Definition of *Sandnyanash*:

Sandnyanash means,

Sandya – sensation/stimulation

Nash – loss,

So the definition is loss of sensation. But in context of surgery, Reversible loss of sensation, especially, pain is known as *Sandnyanash* (Anesthesia). In ancient times *madya* play the role of anesthetic agent in surgical procedures. The ancient scholar chosen *madya* due to its action as *tamogunatmak* substance¹ which is responsible for *buddhi vinash* i.e. loss of governing or intelligence power of brain. Modern science also believes that alcohol causes *anaesthetic* effect². Hence, *madya* has very important role in *sandnyanash* as it's action is more similar with the modern *anaesthetic* drugs. Acharya described that when *sandnyavah nadi* is obstructed by different *doshas*, which are *viatiated* due to *tamasika aahar*, *madya*, *bhanga* causes unconsciousness. When due to effect of

madya unconsciousness occurred it is called as *madyaj murcha* and this is nothing but temporary loss of consciousness³. As *sharangdhar* also defines the term *madkari* in *the guna of madya*. The definition of *madkari* drugs as per acharya *sharangdhar* is the drug responsible for loss of consciousness and being *tamapradhan* just like *madya sura* etc. This leads to increase in *tamo gun* which is responsible for loss of sensation and general ability of a person to respond to various stimulus.

*MADYA GUNA*⁴

- *Laghu*
- *Ushna*
- *Tikshna*
- *Sukshma*
- *Amla*
- *Vyavayi*
- *Aashukari*
- *Ruksh*
- *Vikasi*

• Vishada

All the *guna* of *madya* is opposite to *oja* the essence of all dhatu. *Madya* due to its properties acts so much quickly, reach the end tissue and producing its *anaesthetic* effect. *Madya* can be produced in various form such as *aasav*, *arishta*, *sudha*, etc , in the way by which it can be useful for *Vednanasha Or Sandnyanash*.

Mode Of Action Of *Madya* And Ethyl Alcohol

Madya due to the *guna* like *laghu*, *vyavayi*, *ashukari*, *vikasi* travels through the *sira*, *dhamni* and reaches to the *hrudaya* where it deteriorates and dominate over the *gun* of ‘*Oja*’.

This leads to “*Man Sankshobh*”⁵.

Modern concept also says that – Alcohol produces CNS depression by stimulating inhibitory GABA(Gamma aminobutyric acid)⁶

Stages Of Anaesthesia And *Madavashta*:-If we corelate Anaesthesia and *Sandnyanash*, it is found that, Stages of *Anaesthesia* and *Madavashta* according *Madhav Nidan* and *Charak* are thoroughly matched.

STAGES OF ANAESTHESIA	STAGES OF MADAVASHTA
<p>1.<u>Stage of Analgesia</u></p> <ul style="list-style-type: none"> • Pain is progressively abolished in this stage • Patient remain conscious, can hear see and all functions work normally 	<p>1. <u><i>Prathamavashta</i></u>⁷</p> <ul style="list-style-type: none"> • <i>Na cha buddhasmruti haro</i> - no loss of consciousness • <i>Sukh nidra prabodhash</i> – shows the sedative property • <i>Pritiikar</i> – gladness, means loss of all physical and mental pains.
<p>2.<u>Stage of Delirium</u></p> <ul style="list-style-type: none"> • Apparent excitement • Patient may shout, stuggle, or hold his breath. • Breathing in jerky. 	<p>2. <u><i>Dvitiyavastha</i></u>⁸</p> <ul style="list-style-type: none"> • <i>Sa unmat leela</i> – behaves like unmadi or mental person. • <i>Avyaktbuddhismrutivagvichesta</i> – there is no co-ordination between memory and other physical activities.
<p>3.<u>Stage of surgical anaesthesia</u></p> <ul style="list-style-type: none"> • Loss of eye reflexes • Low pulse and respiration • HR increases • In this stage, surgery is performed 	<p>3. <u><i>Tritiyavashta</i></u>⁹</p> <ul style="list-style-type: none"> • <i>Nashtsandnya</i> – loss of consciousness • <i>Bruyachguhyani</i> – uncoordinated speech.
<p>4.<u>Medullary paralysis</u></p> <ul style="list-style-type: none"> • Pupils widely dilated • Muscles become flabby 	<p>4. <u><i>Chaturthavashta</i></u>¹⁰</p> <ul style="list-style-type: none"> • <i>Nishkriya</i> - no movements • <i>Jivnaati mrutesam</i>- appears like dead body • <i>Bhagnadarviv</i> – falls down due to loss of body tone.

Table 01: Correlation of stages of anesthesia and *Madavashta*.

DISCUSSION

Use of *madya* by scholar of surgery in thousands of year back acts as anaesthesia and help in proper conduction of surgical procedures with minimum suffering to the patient. Ancient text described that before the surgery, surgeon must give the *pischill*, *abhishyandi* and *tamas aahar* to the patient who is unfit for *madya* (alcohol) consumption and for those who are fit for '*Madyapan*' (alcohol consumption), should be given a concentrated *madya* in the dose that will cause mild unconscious but not any complications.^{11,12}

The dose of *madya* didn't hamper the patient instead help the ancient scholar to conduct the procedure. Without any complications. Acharya described the role of *madya* in *garbhapata*. It is mentioned in the text that in case of abortion or *garbhapata*, after removing *apripakva garbhashalya*, for the purpose of *garbhashay shodan*, *vednashaman*, *harshan*, surgeon must give the *sura*, *Sidhu*, *arishta*, *madira* or *aasava* to the patient^{13,14}.

All these highlighted the role of *madya* as anti-inflammatory and the drug of choice for anesthesia in ancient times.

CONCLUSION

Due to its availability in various form which contains different percentage of alcohol *madya* is useful in different doses as per the patient. Due to its properties like *tam guna*, *moh*, *vyavyi*, *vikasi*, *Madya* has very crucial role in *sandnyanash* as well as *vednashamana*^{15,16}. There is a need of more research on various forms of *Madya* which can be easily used for *Sandnyanash* and *Vednashaman*, without deteriorating the condition of patient.

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