DEVELOPMENT OF AYURVEDIC PROTOCOL FOR DIAGNOSIS AND MANAGEMENT OF ALCOHOL ADDICTION

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Abstract: Background: Alcohol dependence is a substance related disorder in which an individual is addicted to alcohol either physically and mentally. The problem of alcohol addiction is increasing day by day in the world. India is most susceptible country for alcoholism. Hence it is need to give more attention to build up healthy world. Material and Methods: The material for this article is taken from personal clinical experiences and various clinical studies published in index journal. Text book of Ayurvedic and Modern medicine has also referred to develop the protocol. Results and discussion: Ayurveda has mentioned the alcoholism, addiction, withdrawal and philosophy of addiction under the heading of Madatyay and Panapkrana and oaksamya. Trivid parikshan Darshana, Sparshana and Prishana has applied and extended to evaluate the severity of dependence, craving in alcohol addiction and Alcohol Withdrawal Syndrome (AWS). Pueraria tuberosa DC, Celastrus panniculata Willd, Jaharamohara, Lavanbhaskar Churna, Rauwolfia serpentine Benth, Phyllanthus niruri Linn, have a property of alcohol dose inhibitor, thiamine enhancer, potassium and magnesium supplier, sleep inducer and hepato-protective respectively and hence they can be used for de-addiction of alcohol. In long term medication Shirodhara, Shiroabhyang, meditation. Recreational therapy, psychological counseling, sleep hygiene and daily schedule for addicted patient will be help to support the drug and play a major role in de-addiction of alcohol. Conclusion: The Ayurvedic protocol of diagnosis and management of alcohol addicted patient will play major role to free the world from alcohol.

Keywords: Alcohol addiction, Alcoholism, De-addiction of alcohol, Panatyaya, Madatyay, Ayurveda

INTRODUCTION

Alcohol addiction is a very serious problem of a world. Alcohol Consumption is a contributory cause of more than 200 illnesses defined by the International Classification of Diseases (ICD 10) as threeDigit disease codes [1]. Chronic use of alcohol causes hemorrhagic gastritis, hepatitis, cirrhosis of liver, pancreatitis, peripheral neuropathy, wernicke’s korsakoff syndrome, arrhythmia, holiday heart syndrome, decrease sperm count & erectile capacity, amenorrhea and low bone density[2]. India has been identified as the potentially third largest market for alcoholic beverages in the world which has attracted the attention of multinational liquor companies. Sale of alcohol has been growing steadily at 6% and is estimated to grow at the rate of 8% per year. About 80% of alcohol consumption is in the form of hard liquor or distilled spirits showing that the majority drink beverages with a high concentration of alcohol.[3-i] There are 381 de-addiction centers running in India funded by government of India directly indirectly, [3-ii] but the problem of alcohol addiction is status quo.

In May 2013, the American Psychiatric Association issued the 5th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM 5), although there is considerable overlap between DSM-5 and DSM-IV. The DSM-IV described two distinct disorders, alcohol Abuse and alcohol Dependence, with specific criteria for each. Anyone meeting one or more of the “Abuse” criteria (out of items 1-4) within a 12-month period would receive the “Abuse” diagnosis. Anyone with three or more of the “Dependence” criteria (From items 5-11) during the same 12-month period would receive a “Dependence” diagnosis.

DSM-5 integrates the two DSM-IV disorders, alcohol Abuse and alcohol Dependence, into a single
disorder called Alcohol Use Disorder (AUD) with mild, moderate, and severe sub-classifications. Anyone meeting any two of the 11 criteria during the same 12-month period would receive a diagnosis of AUD. The severity of an AUD—mild, moderate, or severe—is based on the presence of 2 or 3, 4 or 5 and 6 or more out of 11 criteria respectively. Also DSM-5 adds craving as a criterion for an AUD diagnosis which is not included in DSM-IV.[4]

The alcoholism and its addiction is not a new problem for Ayurveda and has found from Vedic period. The harmful effect of alcohol that is Madatay has found in all the text of Ayurveda and the alcohol withdrawal describes under the heading of Panapakrama, but the clinical manifestation of alcohol withdrawal is not found. Ayurveda has also found the diagnostic tools both for disease and patient but it is not describe in most of the disease including addiction and withdrawal of alcohol. Hence it is needed to evaluate and developed the diagnostic protocol for the purpose of assessment of addiction & withdrawal and its management.

In the Ayurveda so many herbal, mineral and herbomineral formulations along with procedure of Panchakarma, Recreational therapy and psychological counseling are found for the treatment of alcohol de-addiction and rehabilitation but the matter is scattered and need to collect, elaborate, evaluate and discuss. This research highlighted about the diagnostic method of alcohol addiction and withdrawal and also protocol of de-addiction and rehabilitation with scientific evidence based justification.

AIM AND OBJECTIVES

1. To collect discuss and evaluate the material of alcohol addiction, withdrawal and management from text book of Ayurvedic and Modern medicine.
2. To develop the Ayurvedic diagnostic protocol for alcohol addiction and withdrawal.
3. To develop the Ayurvedic protocol for the management alcohol de-addiction.

MATERIAL AND METHODS

The material for this article is taken from personal clinical experiences and various clinical studies published in index journal which is collected from ayush research portal, journal on web, Pubmed along with various website of journals concern with alcohol addiction, withdrawal its manifestation and management. Ayurvedic samhita such as Charak samhita, Sushruta samhita, Astanghirdayam, Sarangadhara samhita, Vangsera samhita and there commentaries has referred to develop the protocol. In modern medical text the Harrison principles of internal medicine, Oxford Text book of medicine and some more books also referred to develop the protocol.

Ayurvedic Aspect of Alcohol Addiction:
Acharya Charak stated that the substance which becomes homologation by continuous utilization is called Oak satmya (Acquired homologation) [5]. Acharya Chakrapani stated in Ayurvededipika that the Apathya (unwholesome) substance is more about harmless if it becomes homologation due to continuous utilization though it may be poison [6]. Drug addiction is the process in which the person becomes physiologically dependence on that drug due to continuous utilization. Here addicted person also homologation with alcohol. Hence both the process addiction and Satmya or oak satmya are somewhat similar and difference is that satmya or oak satmya have less craving than addiction after withdrawal and second one is satmya or oak satmya have none or less chronic bed effects but addiction may leads severe chronic effects to maximum organ system. Maharshi Vedavyas has also mentioned in his Mahakarya Bhagvatgeeta that the Sidha purush (Ascetic) are free from all the indulgence but the common people cannot because the perception of substance will remained in the body [7]. Hence the alcohol addicted person will be tried to leave the alcohol but body will give remind to him, that is why he feels craving.

Ayurvedic Concept of Alcohol Withdrawal Syndrom (AWS)
Acharya Kashyap described the AWS under the heading of Panapakrama, means sudden stop of alcohol leads to clinical manifestation[8]. If any product is homologation due to its continues use, it stop suddenly produce some adverse sign & symptoms. Further Acharya charak stated that the Jitendriya (Sense subdue) person who leave all types of alcohol that intelligent person never suffer from physical and mental disorder. It means if a person who is not sense subdue and leaves alcohol he will suffer from physical and mental disorders, which is called as AWS [9].
Ayurvedic Method of Clinical Diagnosis:

Acharya Vagbhatta described the Trividh prikshana which includes Darshan (Inspection), Sparshan (Palpation) and Prishan (Questionary) [10]. The addicted patient should examine by trividh parikshana. The Prishan is very important tool to diagnose the severity of alcohol addiction disorder. The Alcohol Use Disorders Identification Test (AUDIT) is to mention for severity of dependence and Alcohol Craving Questionnaire - Short Form - Revised (ACQ-SF-R) is used to determine severity of craving in alcohol addiction [11, 12]. AUDIT and ACQ-SF-R both has to be included under Prishan pariksha (Table-1).

The AUDIT was developed by the World Health Organization (WHO). It contains 10 questionnaire and total Score Provides a general measure of severity of alcohol dependence. A score of 8 or more is associated with harmful or hazardous drinking. A score of 13 or more in women, and 15 or more in men, is likely to indicate alcohol dependence (Table-2.)

Table-1: Prishan pariksha in alcohol addiction by using Alcohol Use Disorders Identification Test (AUDIT)

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Questions</th>
<th>0 Score</th>
<th>1 Score</th>
<th>2 Score</th>
<th>3 Score</th>
<th>4 Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>How often do you have a drink containing alcohol?</td>
<td>Never</td>
<td>Monthly or less</td>
<td>2-4 times a month</td>
<td>2-3 times a week</td>
<td>4 or more times weekly</td>
</tr>
<tr>
<td>2.</td>
<td>How many drinks containing alcohol do you have on a typical day when you are drinking?</td>
<td>1 or 2</td>
<td>3 or 4</td>
<td>5 or 6</td>
<td>7 - 9</td>
<td>10 or more</td>
</tr>
<tr>
<td>3.</td>
<td>How often do you have 6 or more drinks on one occasion?</td>
<td>Never</td>
<td>less than monthly</td>
<td>Monthly</td>
<td>Weekly</td>
<td>Daily or almost daily</td>
</tr>
<tr>
<td>4.</td>
<td>How often during the past year, have you found that you drunk more or for a longer time than you intended?</td>
<td>Never</td>
<td>less than monthly</td>
<td>Monthly</td>
<td>Weekly</td>
<td>Daily or almost daily</td>
</tr>
<tr>
<td>5.</td>
<td>How often during the past year have you failed to do what was normally expected of you because of your drinking?</td>
<td>Never</td>
<td>less than monthly</td>
<td>Monthly</td>
<td>Weekly</td>
<td>Daily or almost daily</td>
</tr>
<tr>
<td>6.</td>
<td>How often during the past year have you had a drink in the morning to get yourself going after a heavy drinking session?</td>
<td>Never</td>
<td>less than monthly</td>
<td>Monthly</td>
<td>Weekly</td>
<td>Daily or almost daily</td>
</tr>
<tr>
<td>7.</td>
<td>How often during the past year have you felt guilty or remorseful after drinking?</td>
<td>Never</td>
<td>less than monthly</td>
<td>Monthly</td>
<td>Weekly</td>
<td>Daily or almost daily</td>
</tr>
<tr>
<td>8.</td>
<td>How often during the past year have you been unable to remember what happened the night before because of your drinking?</td>
<td>Never</td>
<td>less than monthly</td>
<td>Monthly</td>
<td>Weekly</td>
<td>Daily or almost daily</td>
</tr>
<tr>
<td>9.</td>
<td>Have you or anyone else been injured as a result of your drinking?</td>
<td>No (0)</td>
<td>Yes, but not in the past year (2)</td>
<td>Yes, during the past year (4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Has a relative, friend, doctor, or health care worker been concerned about your drinking, or suggested that you cut down?</td>
<td>No (0)</td>
<td>Yes, but not in the past year (2)</td>
<td>Yes, during the past year (4)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table-2: Prishan pariksha by Alcohol Craving Questionnaire - Short Form - Revised (ACQ-SF-R)

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Questions</th>
<th>-3</th>
<th>-2</th>
<th>-1</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>If I had some alcohol, I would probably drink it.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>I miss drinking.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>I am not making any plans to drink.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>I could not stop myself from drinking if I had some alcohol here.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>I want to drink so bad I can almost taste it.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>I would feel less irritable if I used alcohol now.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>If I used alcohol, I would feel less tense.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Drinking would not be very satisfying.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>I would feel less restless if I drank alcohol.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>If I were using alcohol, I would feel less nervous.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>It would be easy to pass up the chance to use alcohol.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Drinking would put me in a better mood.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The questionnaire will be provided to the alcohol addicted patient which have to put a singal checkmark along each line between STRONGLY DISAGREE and STRONGLY AGREE. But it is difficult to decide the degree of craving and it is a qualitative parameter, so it require some changes to assess quantitative degree of craving. Here ACQ-SF-R has given a grade like: Strongly disagree = -3, Mild disagree = -2, Disagree = -1, No answer = 0, Mild agree = 1, Agree = 2, Strongly Agree = 3. The minus score of ACQ-SF-R is indicated here no craving, 0 score is associated with neutral. A score of 1-8 is indicate mild craving and 8-15 indicate moderate craving. If the score above the 15 it means sever craving.

**Trividha Parikshan to Assess the AWS:**

Assessment of AWS is also done by trividh parikshan. The symptoms are taken from the Clinical Institute Withdrawal Assessment of Alcohol Scale, Revised (CIWA-Ar) scale for the assessment of alcohol withdrawal out of this the tremors, anxiety, orientation and proximal sweat examine by Darshan and tactile disturbance by Sparsh & prashan parikshan. The nausea, vomiting, visual auditory disturbance, orientation anxiety, agitation, insomnia, confusion, craving and headache examine by prashan parikshan.

**Vitiation of Dosha, Dushya and Srotas in AWS:**

It is very necessary to evaluate & elaborate the dosha, dushya and srotasa to determine the Samprapti (pathogenesis) of AWS. (Table-3)

Nausea, vomiting will be found due to vitiated kapha dosha along with vitiation of rasa dhauti and annvah srotas. In tremors vitiation of vata dosh, rasa dhauti and vatavah srotas will be found. Anxiety, agitation, Tactile, auditory and visual disturbances will be found due to vitiation of raja dosh and manovah srotas. Paroxysmal sweat will be found due to vitiation of pitta dosh, meda & sweda dhauti, along with medovah & swedovah srotas. Orientation & clouding of sensorial will be found due to vitiation of kapha dosh and samgyavah srotas. Headache will be caused by vitiated vata dosh and rakta dushya along with vatvah srotas. Insomnia will be the result of aggravated vata & pitta dosh and rasa dhauti and involvement of samgyavah srotas.

**AYURVEDIC PROTOCOL FOR ALCOHOL DE-ADDICTION:**

**Drug therapy for alcohol withdrawal & rehabilitation**

As such there is no method of alcohol de-addiction has mentioned directly in Ayurveda. Hence the method of Padashik krama (Quad part manner) has used by most of the physician as described by

**Table-3: Symptom wise involvement of dosha, dushya and srotas in Alcohol Withdrawal Syndrome (AWS)**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Symptoms</th>
<th>Sharrik dosha</th>
<th>Manas dosha</th>
<th>Dushya</th>
<th>Srotasa dushti</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Nausea/Vomiting (Heelot/Chhardi)</td>
<td>Kapha,</td>
<td>-</td>
<td>Rasa</td>
<td>Anmvah</td>
</tr>
<tr>
<td>2.</td>
<td>Tremors (Kampaa)</td>
<td>Vata</td>
<td>-</td>
<td>Rasa,</td>
<td>Snayu Vatavah</td>
</tr>
<tr>
<td>3.</td>
<td>Anxiety (Avrasada)</td>
<td>-</td>
<td>Raja</td>
<td>-</td>
<td>Manovah</td>
</tr>
<tr>
<td>4.</td>
<td>Agitation (Uddhag)</td>
<td>-</td>
<td>Raja</td>
<td>-</td>
<td>Manovah</td>
</tr>
<tr>
<td>5.</td>
<td>Paroxysmal sweat (Sweda)</td>
<td>Pitta</td>
<td>-</td>
<td>Meda,</td>
<td>Sweda Medovah,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sweda</td>
<td>Samgyavah</td>
</tr>
<tr>
<td>6.</td>
<td>Orientation &amp; clouding of sensorial (Sparambrhay)</td>
<td>Kapha</td>
<td>-</td>
<td>-</td>
<td>Samgyavah</td>
</tr>
<tr>
<td>7.</td>
<td>Tactile disturbances (Sparsh vibhran)</td>
<td>-</td>
<td>Raja</td>
<td>-</td>
<td>Manovah</td>
</tr>
<tr>
<td>8.</td>
<td>Auditory disturbances (Shrota vibhran)</td>
<td>-</td>
<td>Raja</td>
<td>-</td>
<td>Manovah</td>
</tr>
<tr>
<td>9.</td>
<td>Visual disturbances (Drashti vibhran)</td>
<td>-</td>
<td>Raja</td>
<td>-</td>
<td>Manovah</td>
</tr>
<tr>
<td>10.</td>
<td>Headache (Shirasool)</td>
<td>Vata</td>
<td>-</td>
<td>Rakta</td>
<td>Vatavah</td>
</tr>
<tr>
<td>11.</td>
<td>Insomnia (Avindra)</td>
<td>Vata Pitta</td>
<td>-</td>
<td>Rasa</td>
<td>Samgyavah</td>
</tr>
</tbody>
</table>
Acharya Charaka to stop the apathy ra satnya and
start the pathya one [13]. Also in Charak Vimansadhana described to leave the apathy satnya
stepwise [14]. Here the patient will be suggested to
decrease the dose of alcohol stepwise as mentioned
in padanshik krama, but this method will be useful
in obedient patient and difficult to apply in case of
alcohol addiction where patient desire to take more
alcohol once it is start to take. Hence there is need
to develop another method of de-addiction of alcohol
for addicted patient.

Whole management of alcohol addiction is
divided into two phases i.e. management of alcohol
withdrawal and second one is rehabilitation. Both
will run subsequently but treatment of alcohol
withdrawal is short term and rehabilitation is long
term course. As per Ayurveda in pathogenesis of
AWS there is vitiation of vata dominantly along with
somewhat pitta and kapha. Hence here need
most of the vata shamanak drugs. The patient of AWS
has found psychological disorders in the form of
vitiation of raja and manovaha srotas. Hence it is
need to calm down it.

Vidarikanda churna is given with milk empty
stomach, which is prepared from root of Pueraria
rubresa which having madhur rasa (sweet taste),
madhur vipaka, sheet viyra (cold potency) and
guru, snigdh guña (heavy, unctuous property). It
acts as vata pitta shamak and balya (strengthening)
in nature [15].

Jyotishmati oil capsule is given with milk. It
is oil extracted from seed of Celastus parnialatus, having katu tikta rasa (pungent, bitter
taste) and medhya (memory booster) property. It
is vata kapha shamak drug [16]. The oil is ushna
and causes oral thrush even blisters after ingestion
in many patients. So Capsulated oil with milk reduce
such side effects.

Jaharmohara pishthi is given before empty
stomach, here jaharmohra pishthi rich in
magnesium and having ojovrhol (vitality enhancer)
& hridya (cardiotonic) property [17].

Lavanbhaskar churna is given after meaal.
The ingredient of Lavanbhaskar churna are
sendhav (rock salt), sorvachal (black salt), Vida
(ammonium salt), Samudra lavan (sea salt),
Coriander sativum, Pipper longum, Pipper nigrum,
Zingiber officinale, Pipper longum root, Nigella
stvec, Mesua ferrea, Abies webbiana, Cinnamomum
tamala, Cuminum cyminum, Punica granatum,
Cinnamomum zulanicum, Elettaria cardemomum.
Fine powder of the above are triturated with lemon
juice. It is rich in potassium due to salt. It is a good
carmineative and digestive [18].

Sarpagandha churna is prepared from root of
Rauwolfia serpaintina having tikta rasa, katu
vipaka, ushana virya and ruksha guna (non-
unctuous property). It acts as nidrojan (somatic)
and vata kapha shamak [19].

Bhumyamalki ghan vati is prepared by the
panchang (whole plant) of Phyllanthus niruri having
tikta, kashaya (Astringent) & madhur rasa, madhur
vipaka, shita virya and laghu (light), ruksha guna.
It acts as kapha pitta nasha, it acts as Yakrituttajak
(hepatic stimulant) & rochani (appetiser) [20].

Meditation is a practice of concentrated
focus upon a sound, object, visualization, the breath,
moveinent, or attention itself in order to increase
awareness of the present moment, reduce stress,
promote relaxation, and enhance personal and

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<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Drug and Therapy</th>
<th>Withdrawal Treatment</th>
<th>Rehabilitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Vidarikand churna- 5gm twice a day with milk empty stomach.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2.</td>
<td>Jyotishmati oil capsule- 0.5 ml twice a day with milk</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>3.</td>
<td>Jaharmohara pishthi- 250 mg twice a day empty stomach</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>4.</td>
<td>Lavanbhaskar churna- 2 gm twice a day after meal</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>5.</td>
<td>Sarpagandha churna- 500 mg twice a day after meal</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>6.</td>
<td>Bhumyamalki ghan vati-500 mg twice a day after meal</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>7.</td>
<td>Meditation &amp; Asana- early morning</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>8.</td>
<td>Shirodhara-by mansyadi kwath and milk</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>9.</td>
<td>Siroabhya-Brahmi oil</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>10.</td>
<td>Psychological Counseling</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>11.</td>
<td>Recreational therapy-Harshani chikitsa</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>12.</td>
<td>Amovasani vasati by Dashmool oil</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>13.</td>
<td>Sleep hygiene</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
Table-S: Dincharya (Daily routine) of patient for de-addiction of alcohol

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Time</th>
<th>Event</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>5.30 am</td>
<td>Wake up</td>
<td>For protection of life [23].</td>
</tr>
<tr>
<td>2.</td>
<td>Up to 6.15 am</td>
<td>Shonch kriya *</td>
<td>It enhances the personal energy and strength.</td>
</tr>
<tr>
<td>3.</td>
<td>6.15 am to 7.15 am</td>
<td>Meditation and asana</td>
<td>To enhance physical and mental strength</td>
</tr>
<tr>
<td>4.</td>
<td>7.15 am to 7.30 pm</td>
<td>Milk with medication</td>
<td>Vitality &amp; life enhancer and Rejuvenate property [29].</td>
</tr>
<tr>
<td>5.</td>
<td>7.30-8.30 am</td>
<td>Shirodhara &amp; Shiroabhyang</td>
<td>For good sleep, enhance the capacity of sense organ and keep away from headache</td>
</tr>
<tr>
<td>6.</td>
<td>8.30 pm - 11.30 pm</td>
<td>Rest</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>11.30 pm</td>
<td>Lunch</td>
<td>Nourish the body, elements, vitality and complexion [30].</td>
</tr>
<tr>
<td>8.</td>
<td>After lunch</td>
<td>Medication &amp; rest</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>3 pm to 5 pm</td>
<td>Recreational therapy</td>
<td>It helps to divert the mind and improve the mental quality</td>
</tr>
<tr>
<td>10.</td>
<td>5.30 pm</td>
<td>Milk with medication</td>
<td>Given above</td>
</tr>
<tr>
<td>11.</td>
<td>8.00 pm</td>
<td>Dinner</td>
<td>As like lunch.</td>
</tr>
<tr>
<td>12.</td>
<td>9.00 pm</td>
<td>Sleep with sleep hygiene</td>
<td>It enhances the health and age or strength of life [31].</td>
</tr>
</tbody>
</table>

* (tooth brushing, tongue cleaning both 'Taila atu')

Spiritual growth. It helps to overcome negative minds and cultivating constructive thoughts. Asana improve flexibility, strength, balancing power of a body. Both have variety of methods and effects. Simple meditation and asana is given to patient for mental strength as well as physical strength. Session is for sixty minutes daily, for six days a week. Subjects practiced warm up for 5 minutes, Asana (physical postures) for 20 minutes like Tadasana, padahasthasana, bhujangasana. Pranayama for 20 minutes such as: nadishudhi, brahmari, bhashrika, anuloma viloma and also Meditation for 15 minutes.

Shirodhara is a process in which pouring of medicated liquid substances over the head in continuous stream is known as Shirodhara. In Ayurvedic classics Shirodhara can be correlated with shiroparishwaka which is a type of mardhatukta [21]. For shirodhara, Mansyadi kwath and dagdhi is given daily for 7 days in morning.

Shiroabhyang by Brahmi (Bacopa monnieri Linn) oil daily which induce sleep, enhance the capacity of sense organ and keep away from headache. Brahmi act as medhya (intellectual) and rejuvenate. It is also a type of mardhatukta [22,23].

Psychological Counseling played very important role in alcohol de-addiction as it is a psychosomatic disorder. Ayurveda has also known it’s important as he describe in madatya to listen interesting stories and the sound of peacock [24].

In the first day general psychological counseling will given to patients. Counseling by creating phobia about the toxic effect of alcohol on human health by showing pictures of alcohol damaged organ. The psychological effects of alcohol will put forward and trying to counsel that how his mind and body is affected. Patient will counsel about misfortune of his family that how his son daughter wife and parents affected due to his drinking habit.

Patient will convey about economic losses and misfortune of economic status, also convey that how his social status decline by alcohol drinking.

Recreational therapy is a treatment designed to restore, remediate and rehabilitate a person’s level of functioning and independence in life activities, to promote health and wellness as well as reduce or eliminate the activity limitations and restrictions to participation in life situations caused by an illness or disabling condition. Acharya charak and vagbatta has described the harshani chikitsa which resemble to recreational therapy, [25, 26]. Recreational therapy will be given daily 2 hours 3 pm to 5 pm. It include number of funny events like one minute show, team sports, team building activities, music therapy and social activities.

Anuvasan vasti(Matra vasti) is given to the patient after 10 days of treatment with 60 ml/day Dushmuladi oil after lunch for next 7 days.

Sleep hygiene is essential to alter the bed habits of addicted patients which will be taught to the patient for insomnia. It have simple techniques to make good sleep as Acharya charak state that beautiful, neat and clean bad and also room; fix time for sleep which was adapted by person; listening of soft music, wash eyes with cold water and use to take milk are some measures which induced sleep.
Ayurveda suggested that every man should be wake up at Brahmmuhurt (hours before sun rise) which give protection to life. After that body should clean by passing the waste material, tooth brushing and bath which causes enhancement of personal energy and strength. Medication and Asana will enhance the mental and physical strength after completion of cleaning. Milk and medication, shirodhara, shiroabhyang, rest, lunch again medication and rest should be given as per schedule. Recreational therapy should be scheduled in between afternoon and evening. Milk with medication dinner and sleep hygiene should be suggested as per schedule.

The aim and object to give the proper dincharya to the alcohol addicted patient is to modify his habit according to ayurveda. This will help the patient to regulate the vatadi dosh as well as manas dosh and improve the physical and mental strength. It can be proceeds stepwise as it is difficult to modify the habit of addicted patient at intend.

**DISCUSSION**

Ayurveda describe the alcohol withdrawal under the heading of panapkram and stated that the men who are not Jitendriya can develop psychosomatic disorder after withdrawal of alcohol. Ayurveda has described the Trividh pariksham, out of this Prishan pariksha is very important tool to determine the severity of dependence and craving, which is mentioned as an AUDIT and ACQ-SF-R respectively in Modern medicine. But the clinical features of AWS need to evaluate by all the Trividh pariksham means inspection, palpation and question.

On the basis of clinical features of AWS most of the manifestations are found due to vitiation of Raja & Vata dosh, Ras dhatu and Manovah srotas. Some of them due to vitiated pitta, kapha and sangyavah srotas. Few clinical features are due to vitiation of snayu, sweda, rakta, meda dhatu and Vatvah, Annavah, Swedvah, Medovah srotas.

The clinical feature like anxiety, agitation and tactile, auditory, visual hallucination are manifest due to Manas dosh specially Raja. The clinical features of AWS are concluded and found that it is Vata pradhan vyadh with involvement of Raja manshik dosha where chushya are ras, rakta, meda, snayu and sweda. Srotas involves are manovah, sangyavah, vatvah, ras, rakta and annavah shrotasa.

Ayurveda has mentioned the virudh satmya (madya) can be stop by stepwise decreasing dose, but this method may be applied only in obedient patient and need to develop another method. Here the new method is devised by evaluating the Ayurvedic samprapti and selecting the drug which is useful to relieve the vitiation of dosh dhatu as well as clinical manifestation of AWS.

Most of the time it is found that, the alcohol addicted patient have not follow the dincharya (proper daily schedule) due to physiological disturbance. Hence it is need to replace his bed schedule by giving periodic time table to perform his daily activities from wake up early morning to sleep at night.

The rehabilitation of addicted patient is time spending process and can be started along with treatment of alcohol withdrawal and prolonged for month and more. Ayurveda has mentioned that the medication for Panatya has to be given only for 7-8 days that means the clinical feature of Panatya will remained only up to 7-8 days [32, 33]. As per modern medicine the withdrawal symptoms generally begin within 5 to 10 hours of decreasing ethanol intake, peak in intensity on day 2 or 3 and improve by day 4 or 5 [34]. Hence it is need to manage the patient of alcohol withdrawal up to a week, which is already stated in ayurveda. But anxiety, insomnia and mild level of autonomic dysfunction may persist to some degree for more & equal to 6 month. Hence it is need to follow and rehabilited the patient of alcohol addiction till 6 month.

*Pueraria tuberosa* is also known as Indian kudzu because it is similar to kudzu (*Pueraria lobata*) as both have same useful part (tuber), similar chemical constituent like Isoflavonoid. Lukas and his colleague study shows that the kudzu extract significantly reduced the number of drinks consumed each week by 34-57 %, reduced the number of heavy drinking days, and significantly increased the percent of abstinent days and the number of consecutive days of abstinence [35]. Experimental studies on rat show that the reason of subjects consume less alcohol is due to the isoflavonoids found in kudzu root allow
acetaldehyde to accumulate and this makes the alcohol less desirable [36]. Hence *Pueraria tuberosa* will be used as successfully to lessen the craving of alcohol.

*Celastrus paniculatus* is also known as staff tree. It is an intellect promoting drug which calms down the always wandering brain and induces natural sleep. It helps to recover Thiamine deficiency [37, 38].

*Lavanghaskar churna* and *Jaharmohara pishthi* is used to fulfill the potassium & magnesium deficiency. In sever alcohol withdrawal there is low level of potassium & magnesium which leads to neuromuscular problems [39]. The drug *Rauwolfia serpentina* will calm down the clinical manifestation like insomnia, anxiety and agitation and elevated blood pressure [40, 41 and 42]. Prolonged alcoholism causes hepatic injury and hence *Blumiamalaki Ghanvat* will be added to regulate the hepatic functions because *Phyllanthus niruri* plays hepatoprotective role and it is proved by many vivo models against toxicity induced by CCl4, nimasulide, acetaminophen etc [43, 44 and 45].

*Meditation and Asana* is very useful for alcohol addicted patient. A study done by R. Manocha concludes that the meditation is safe and effective strategy for dealing with stress and depressed mood [46]. A study shows that *Anuloma viloma pranayama* helps in the reduction of the anxiety and the depression level of the individual and elderly as well [47]. *Bhastrika pranayama* may be established as a non medicinal remedy of insomnia [48]. In a clinical trial it is concluded that Exercise and meditation condition significantly reduced alcohol consumption compared to the no-treatment control condition [49]. A clinical trial on subjects, who takes bear and wine daily, shows 40 percent of subjects who had meditated for more than 2 years reported discontinuation within the first 6 months. After 25-39 months of meditation, this figure increased to 60 percent. In addition, 54 percent of this group had stopped drinking hard liquor. The authors suggest that meditation could be an effective preventive tool in the area of alcohol abuse [50]. Slow breathing type of pranayama for six weeks improves cognition, anxiety and general well-being and increases the parasympathetic activity[51]. *Anuloma Viloma Pranayama* has shown to reduce stress in chronic alcoholics. Regular pranayama may thus help in stress management and enhance relaxation skills in alcoholics facilitating recovery [52].

The clinical study of *Shirodhara* by mansyadi kwath and milk revel the significant result on insomnia, anxiety which is part of AWS [53]. In clinical trial it is found that Godugali Shirodhara has highly significant effect on niidranash without any side effect [54]. *Shiroabhyang* is a good sleep inducer and relive headache which is mention by Acharya charak and this symptoms are part of AWS.

*Psychological Counseling* is very useful in It is our belief that the importance of the “psychological counseling” therapies in the treatment of drug abuse cannot be underestimated. Even where effective pharmacotherapies are already available for drug abuse treatment. The mainstay of drug abuse treatment is psychotherapy and/or drug counseling [55].

*Recreational therapy* is Activities stimulate a wide array of addiction recovery themes; it is a techniques to improve the physical, cognitive, emotional, social and leisure needs of their subject. The goal of recreational therapy is to restore or rehabilitate the proper functioning of body and independence of individual as well as reduce or eliminate the effects of illness or disability. Recreational therapy have many health benefits ,the experiment group shows significant reduction in anger, tension, depression, stress and fatigue score and significant improvement in mood change[56].

*Anuvasana (matra) vasti* is recommended for patient who becomes weak due to alcohol consumption, which normalizes the vitiated vata and decrease the symptom produce by aggravated vata dosh. In insomnia sleep medication have the danger of being misused i.e. rebound insomnia so it is better to taught good sleep habit which easy and applicable.

**CONCLUSION**

The diagnostic criteria of alcohol addiction and its withdrawal by using *trividh parikshan* and *dosa dasrashi srotasas parikhana* are helpful to give the proper direction while management of alcohol addiction. The drug therapy, psychological counseling, recreational therapy, sleep hygiene and mediation all together will play major role to come out the addicted patient from the world of alcohol.
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