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# STUDY THE EFFECT OF ASHTADASHANG LOHA CHURNA ON SR. BILIRUBIN and AST: ALT RATIO IN ALCOHOLIC HEPATITIS – A CASE STUDY

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# **ABSTRACT**

Alcohol intake is a major etiological factor behind liver damage in India. The Alcoholic Liver Disease covers a broad spectrum of disorders beginning from fatty liver, progressing at times to alcoholic hepatitis and culminating in alcoholic cirrhosis. Since the alcohol intake has gradually increased over time it has been a major cause of hepatitis. Use of Alcohol under peer pressure has increased among the youth population and those who have various reasons for stress and work issues. Out of the available treatments, mostly vitamin supplements are used or corticosteroids, methylprednisolone, etc. are adviced for longer. To avoid complications Ayurveda as an alternate treatment is needed. The diagnosis of alcoholic liver disease was made on the clinical ground supported by history, symptoms and blood reports. *Ashtadashang Loha* was prescribed to the patient for a month with complete abstinence from alcohol. Significant results have been

observed in the reduction of symptoms and LFT. The above drug effectively relieved the symptoms and further complications.

**KEYWORDS**: Alcoholic Hepatitis, Hyperbilirubinemia, *Ashtadashang Loha*, SGOT/SGPT ratio.

# INTRODUCTION

The liver is responsible for metabolising or processing ethanol, the main component of alcohol. Over time, the liver of a person who drinks heavily can become damaged and cause alcoholic liver disease.<sup>[1]</sup>

Excessive alcohol use can cause inflammatory changes in the liver, leading to more serious damage known as alcoholic steatohepatitis, or alcoholic hepatitis. A subset of these patients will eventually develop severe alcoholic hepatitis, which carries a much more dire short-term prognosis. Depending on the degree of inflammation and damage, these conditions may lead to fibrosis and eventually cirrhosis and liver failure.

Alcohol is the leading cause of preventable liver morbidity and mortality worldwide, as it is also the most frequent cause of advanced liver disease. [2] Liver damage may lead to severe complications and major illness. In the later stages of liver diseases liver transplant is the option which has issues of donor, cost etc. There is a need for a more effective and safer therapeutic drug of natural origin. Alcohol hepatitis had been co-related with *kamala* when considered *hetu* or cause as *madya* or alcohol. *Kamala* is mentioned in various texts by *Acharya Charak*, *Sushrut*, *Vagbhatt* and *Madhavakar*. Hence, when describing the signs and symptoms of *kamala* due to *madya* is the same as alcoholic hepatitis.

The 2 reasons or nidan<sup>[3]</sup> for *kamala* are:

- (A) Due to the excessive use of Paittika Ahara and Vihara by Pandu Rogi.
- (B) Due to excessive use of *Paittika Ahara* and *Vihara*.

When describing the symptoms of *kamala*, *Acharya Charak*<sup>[4]</sup> states that *haridra netra*, *twacha*, *mukha*, *nakha*, *mala*, *mutra*, weakness of sense organ, *daurbaalya*, *aruchi*, burning sensation and indigestion. Even in *Ashtang Hridya*<sup>[5]</sup> except for *daurbalya* and *aruchi* rest, all are mentioned. The diagnosis of alcoholic hepatitis is based on history and symptoms. Laboratory investigations with a deranged LFT, especially Sr. bilirubin and AST: ALT ratio, are considered. [6]

The ANI score does the alcoholic and non-alcoholic differentiation.<sup>[7]</sup> The symptoms of *kamala, peeta mukha, twacha, nakha, netra, mutra, shakrit, hrulas, shudhamandya, jwar* and *aruchi* were assessed.

The most used treatment options are limited and mostly directed towards the prevention of

further liver damage and prevention of complications. Ayurveda therapies are seen to be beneficial, formulations which act as hepatoprotective considerably protect the liver from damage.

# **MATERIAL AND METHODS**

# **CASE PRESENTATION**

A 48-year-old male patient came to the outpatient department (OPD) of *Kayachikitsa* Department, Y M T Ayurvedic Medical College, Kharghar, Navi Mumbai, India (OPD Registration No. 226810), with complaints of loss of appetite(*shudhamandya*), dark colour urine (*peeta mutrata*), mild fever and nausea (*hrulas*) These symptoms were experienced by the patient for past two weeks which aggravated in last 2 days. He consulted a physician and was treated with a standard of care. His baseline Liver Function Test showed Sr. bilirubin 7.5mg/dl (Direct- 4.8mg/dl and Indirect- 2.7mg/dl) & SGOT/SGPT ratio was 2.15. As the complaints were not satisfactorily reduced, he opted for an Ayurvedic treatment.

The patient had no comorbidities but has a history of alcohol consumption for the past 20 years which also led to ascites in 2017 and tapping was done.

During the treatment, the patient was asked to avoid oily and spicy foods along with complete abstinence from alcohol.

# **Clinical Findings**

The general condition of the patient was good and was vitally stable. He had *peeta twacha* & *mukha* (yellowish discolouration of skin & face), *peeta mutrata* (yellowish discolouration colour urine), *peeta netra* (yellowish discolouration of eyes), *peeta nakha* (yellowish discolouration of nails), along with *Aruchi* (loss of taste), *Shudhamandya* (loss of appetite) & *hrulas* (nausea).

# **Personal History**

| Name- XYZ             | Age- 48 yrs             |
|-----------------------|-------------------------|
| Sex- Male             | Marital status- Married |
| Occupation- Business  | Diet- non-vegetarian    |
| Addiction- Alcohol    | Sleep – Disturbed       |
| Bowel- Unsatisfactory | Appetite-Decreased      |

# Ashtavidh Parikshan

| Nadi- pitta vata    | Shabda- spashta   |
|---------------------|-------------------|
| Mala- peetaabh      | Sparsha- peetaabh |
| Mutra- peetaabh     | Druka- peetabh    |
| Jivha- saam/ coated | Aakruti- madhyam  |

Prakriti- pitta vata

Agni- Manda

Kostha- Mrudu

# Diagnostic criteria

- Patients with classical sign & Symptoms of Alcoholic Hepatitis
- Patients with H/O chronic alcoholism for more than 5yrs
- Patients with Sr. Bilirubin more than 2mg/dl
- Patients with SGOT: SGPT ratio more than 1.5
- Patients with ANI score more than (-0.66)

# **TREATMENT**

| Drug                             | Dose, frequency & Anupana | Time                    | Duration | Follow-up     |
|----------------------------------|---------------------------|-------------------------|----------|---------------|
| Ashtadashang loha <sup>[8]</sup> | 250mg BD with<br>Takra    | मध्यभक्त <sup>[9]</sup> | 1 Month  | Every 15 days |

# **OBSERVATION AND RESULTS**

After 10-12 days improvement was seen in the subjective criteria *shudhamandya*, *hrulas*, *aruchi* and after 3 weeks the *nakha peetata*, *netra peetata* and unsatisfactory bowel were improved followed by a gradual decrease in *peeta mukha* and *twacha*. The objective criteria showed a significant improvement i.e. total bilirubin – 1.1mg/dl (Direct- 0.7mg/dl and Indirect- 0.4mg/dl) & SGOT/SGPT ratio was 0.89 which is within the normal range and hence at the end of the study, subjective criteria and objective criteria were completely normal.

# DISCUSSION

# Discussion of disease

The normalcy of *pitta dosha* and *rakhta dhatu* is disturbed due to excessive *tikshna guna* of *pitta prakopak aahaar* and the person is affected by *pandu roga*. This *samprapti* of acquiring *pandu roga* is skipped when a person takes excessive *madya*. Since *madya*<sup>[10]</sup> is *tikshna gunatmak* opposite of *oja*. When alcohol is taken in excess amounts, *tikshna guna* 

increases to such an extent that the *manda*, *pichil guna* of *kapha*, does not pacify it. This with *vata* when goes into *pachan prakriya*, the *uttar-o-uttar dhatu* that is yield is high in *tikshnata* thus disturbing *rasa-rakta prakriya*. *Pitta* of *rakhta dhatu* is increased and *mansa* is also affected leading to overall malnutrition of all the *dhatus*. Hence discolouration is seen in *kamala* or hepatitis due to excessive intake of alcohol or *madya*. Due to excessive *tikshnata*, the *rukshta* of *vata guna* the *snehansh* is decreased and the *saar bhaag* obtained is also *tikshna gunatmak*. A drug which restores the lost *snehansh*, decreases *tikshanata* and aids in recovering *oja* or *balya* is used.

# Discussion of the drug<sup>[12]</sup>

- Astadashang loha contains kiratikta, devdaru, daruhaldi, nagarmotha, guduchi, kutki, patola, durlabha, parpatak, nimba, shunthi, maricha, pippali, chitrak, haritaki, bibhitak, amalaki, vaayvidanga and shudha loha Bhasma.
- *Kutki* is a *behdana*, *rechana dravya* and purgative helping remove excess *pitta* or bile. It is also said to be *yakrut uttejak* and acts as hepatoprotective.
- *Shunthi* along with *chitrak* and *musta* aids in improving the digestive capacity. It will eventually pacify *pitta* and *rakta*, ameliorating *pachak pitta's* functions.
- *Pippali* is *yogvahi* and *rasayan* and therefore *Vardhman pippali rasayan* is advised in patients of *jalodar*.
- *Pippali* and *shunthi* are *snigdha* gunatmak, assisting in recovering the lost *snehansh*. Along with *pippali*, *guduchi* also boosts the immunity of the patient.
- *Triphala* is *trishoghna*, especially *kapha-pittaghna* and thereby helps in excreating the waste and reducing the *aam*.
- Devdaru, daruhaldi, nimba and vaayvidang help pacify kapha and pitta of the body, finally reducing the subjective and objective criteria in synergy with the other drugs.
- Loha Bhasma assists in rejuvenation and life expectancy, calms *tridosha* and helps in the treatment of diseases like *prameha*, *shoola*, *gulma* and disorders of *yakrut*, *pleeha*, *udara* and *pandu*.

# **CONCLUSION**

The treatment showed a significant improvement in subjective and objective criteria. Hence, this treatment protocol is of great help and bigger trials are needed for further evaluation of its efficacy.

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रालभा पर्पटकं सनिम्बंकट्त्रिकं वन्हिफलत्रिकश्च॥

फलं विडड्गस्य समांशकानि सर्वै:सम चूर्णमथायसश्च ।

सर्पिर्मध्भ्यां वटिका विधेया तक्रान्पानाद् भिषजा प्रयोज्या ॥

निहन्ति पाण्ड्श्च हलीमकश्च शोथं प्रमेहं ग्रहणीरुजश्च ।

श्वासश्च कासश्च सरक्तपित्तमर्शास्यथो वाग्ग्रहमामवातम्॥

व्रणाश्च गुल्मान् कफविद्रधीश्च श्वित्रश्च कुष्ठश्च ततः प्रयोगाद्।

भा.प्र.(पाण्ड्कामलाहलिमकचिकित्सा अध्याय)

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