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“Role of different ayurvedic drugs on liver dysfunction.”

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ABSTRACT:-

Ayurveda, the ancient science of life is one of the oldest forms of health care in the world. It is the holistic science that places great emphasis on prevention and aims at bringing about and maintaining harmony of body mind and consciousness. A well known quotation states “Is life worth living? It depends on the liver!” Liver often called the engine of the body, plays an important role in digesting, metabolising and manufacturing essential compounds. The job of the liver is to identify toxins in the blood.

Liver secreats bile which breakdown and digest fatty acid, Produces blood clotting factors, stores suger in glycogen form, also

stores iron, Vit.A, D, B12 etc. In this way liver has a pivotal role in human metabolism. Because of the significant role the liver plays in maintaining our health, we must do all we can to keep it function well.

Ayurvedic medicines play a significant role in protecting the liver from different pathologies. Clinical studies done on certain hepato-protective drugs like *Tinospora cordifolia*, *Phyllanthus niruri*, *Eclipta alba*, *Picrorrhiza kurroo* etc. have shown their ability to reverse liver pathology. Ayurvedic drugs detoxify and purify the body ,cleaning its channel from the gross level. The contemporary modern medicine though pacify the ailments but they are found incompetent in removing

the toxins at a micro level. So also the dreadful side effects of these drugs are a more nuisance than their effects.

Therefore, it is only righteous to use the Ayurvedic medicines for Liver disorders.

Keyword: *liver dysfunction, Tinospora cordifolia, Phyllanthus niruri, Eclipta alba, Picrorrhiza kurroo*

INTRODUCTION:-

Ayurveda, the ancient science of life is one of the oldest forms of health care in the world. It is the holistic science that places great emphasis on prevention and aims at bringing about and maintaining harmony of body mind and consciousness. A well known quotation states "Is life worth living? It depends on the liver!" Liver often called the engine of the body, plays an important role in digesting, metabolising and manufacturing essential compounds. The job of the liver is to identify toxins in the blood.

Liver secretes bile which breakdown and digest fatty acid, Produces blood clotting factors, stores sugar in glycogen form, also stores iron, Vit.A, D, B12 etc. In this way liver has a pivotal role in human metabolism. Because of the significant role the liver plays in

maintaining our health, we must do all we can to keep it function well.

Ayurvedic medicines play a significant role in protecting the liver from different pathologies. Clinical studies done on certain hepato-protective drugs like *Tinospora cordifolia*, *Phyllanthus niruri*, *Eclipta alba*, *Picrorrhiza kurroo* etc. have shown their ability to reverse liver pathology. Ayurvedic drugs detoxify and purify the body, cleaning its channel from the gross level. The contemporary modern medicine though pacifies the ailments but they are found incompetent in removing the toxins at a micro level. So also the dreadful side effects of these drugs are a more nuisance than their effects.

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METHODOLOGY:-

1. Phyllanthus niruri- (Bhumyamalaki)

Active Principle-

Phyllonthin, Hypophyllanthin

Action-

- Ethanolic extract exhibited hepato-protective effect on alcohol toxicity in rats.

- Hepato-protective action seen in CCl₄ induced toxicity in cultured rat hepatocytes.
- In chronic viral hepatitis remarkable recovery of liver functions and inhibition of H.B.V. replication seen.
- Hexane extract of dried aerial part at a concentration of 1mg./ml. show significant hepato-protective action.
- Administration of dried entire plant at a dose of 200mg./kg. reduces triglycerides, cholesterol and phospholipids content of liver.

2. Picrorrhiza (Katuki)

Active principle- Kutkin

The standardized preparation used in studies is picrolive.

Action-

- Alcoholic extract significantly protect from hepatic damage caused by CCl₄.
- The liver glycogen content also remains unchanged in the animals pre-treated by P. kurroa.
- The alcohol extract of P. kurroa exhibits choleric action. This results in the decrease in Sr. Cholesterol, billiary bilirubin and alkaline phosphatase.



- The choleric action of P.kurroa is considered due to kutkin and its two constituent organic acid namely cinamic acid and vanillic acid.
- In acute viral hepatitis P.kurroa in a dose of 375mg. normalise the L.F.T. Parameters with quicker clinical recovery.

3. Andrographis paniculata – (Kalmegh)

Active principle-

Andrographolides

Action-

- Andrographolide has been shown to be hepato-protective in CCl₄, Paracetamol and Ethanol induced hepato-toxicity.
- The leaf extract of A. paniculata is known to increase bile flow.
- The andrographolide present in A. paniculata is a potent gall-bladder stimulator and this decrease the probability of gall-bladder stone formation.

4. Tinospora cordifolia- (Guduchi)

Active principle- Tinosporine

Action-

- In malignant obstructive jaundice T. cordifolia decrease morbidity and mortality due to liver cell damage.
- In hepatitis T.cordifolia shows symptomatic relief with

improvement in yellow discoloration of urine, body and reduction in L.F.T. Parameters.

- T.cordifolia prevents liver fibrosis by hepatic tissue regeneration, membrane stabilization and activation of kuffer cells in CCl₄ induced liver damage in rats.

5. Boerhavia diffusa- (Punarnava)

Active principle-
Henitriacontane, B-sitosterol, Punarnavin

Action-

-The chloroform and methanol extract exhibits liver enzyme lowering effects.

Two isolates

- a) steroid }
b) Flavone }

Anti hepatotoxic Activity

1) Steroid: Significantly lowers the enzyme SGOT.

2) Flavone:- Significantly lowers the enzyme SGPT.

- Pharmacological potency depends on the morphological features, time of collection of herbs. Plant roots of 1-3 cm in diameter which are collected in summer exhibited very high hepato-protective effect.

6. Eclipta alba:- (Bhringaraj)

Active Principle:- Wedelo-lactone, Dimethyl wedelolacone

Action:-

-In CCl₄ induced toxicity in rat hepatocytes it shows antihepatotoxic action and stimulates liver cell regeneration.

-In hepatitis patient used as a cholagogue, deobstruent, and regulates HbsAg.

CONCLUSION:-

Every medical science has its limitations, similarly the modern medical science also lacks in the field of liver disorders because every allopathic medicine is metabolised by liver and hence it exerts extra burden on the liver. As in case of liver disorders the liver functions are already hampered and use of allopathic medicines worsens the condition more. So in this field Ayurveda has its upper hand. In this way we can conclude that ayurvedic medical science can play a major role in the field of hepatic disorders.

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