Literature review

1. Manoj Dash et al. (2013) studied the hepatoprotective effect of Hepashrey formulation and concluded that the hepatoprotective effect may be due to the diuretic, anti-inflammatory, antioxidative, immuno-modulating as well as restorative activity of the herbs used.

2. Vadiv R and Vidhya S (2013) selected few herbs known in traditional medicine and studied for its hepatoprotective activity and formulated a capsule formulation and investigated it for therapeutic efficacy. It showed remarkable hepatoprotective activity at doses of 200 mg/kg of body weight and 100mg/kg which is comparable with the standard drug silymarin 25mg/kg by invivo carbon tetrachloride induced toxicity in rats.

3. Yang Chi chiet al (2013) derived and aqueous formula from Artemisia capillris, Lonicera japonica and Silybanummarianum (1:1:1) and evaluated it for its antioxidant properties in CCl4 induced liver damage in rats and obtained results showing the AEF possessed higher antioxidant properties compared with the herbs when used alone and it also showed improved bile duct proliferation, vacuolation and fibrosis and it also restored necrosis.

4. Ahmed et al(2013) evaluated the protective effect of barrisal syrup in the carbon tetra chloride induced chronic hepatotoxicity in rats and suggested that the hepatoprotective effect might be because of its antioxidant and free radical scavenging effects.

5. Mistry S et al (2012) prepared polyherbal formulation using three indigenous plants extract and screened against carbontetrachloride induced hepatotoxicity in rats and proved that it showed dose dependent protection against experimentally induced hepatotoxic models.

6. FaruquiArifet al, (2012) evaluated the Trisoliv syrup containing Andrographolides and tricholine citrate and sorbitol in the management of dysfunctions of liver on the patients for 8 weeks and symptoms were observed for jaundice, fatigue and loss of apetitealongwith the assessment of serum alkaline phosphate and tolerability of syrup. It was concluded that the syrup was
significantly efficacious in the patients suffering from various dysfunctions of liver and was found to be safe.

7. Etridy et al (2012) prepared silymarin loaded niosomes and was investigated for hepatoprotective activity, it was revealed that product has significant decrease in both transaminase level as well as serum alkaline phosphate which suggested it hepatoprotective activity.

8. Sarojet al (2012) investigated a polyherbal formulation mentioned in indian system of medicine containing eight medicinal plants which showed remarkable hepatoprotective activity by lowering the levels of biological parameters and histological evaluation showed its significant hepatoprotective activity.

9. Vilas Arsulet al (2011) selected polyherbal formulation Livergen composed of various herbal extracts and carried out its phytochemical evaluation of total phenolic contents and total flavonoids and studied its antioxidant activity compared to ascorbic acid and also hepato protective activity.

10. Vetriselvanet al. (2011) studied the hepatoprotective activity of Andrographispaniculata on etanol induced toxicity in male albino rats. The histopathological studies shows marked reduction in fatty degradation and centrizonal necrosis in animals receiving different doses of Andrographispaniculata along with ethanol as compared to the control groups.

11. Nagalekshmi R ansMenonet al (2011) investigated the ability of the plants to offer protection against acute hepato toxicity induced by paracetamol in swiss albino mice and revelaed the hepatoprotective activity of Andrographispaniculata and Swertiachirata.

12. Mukazaiyre MJ et al (2010) studied the ecvaluation of the hepatoprotective and hepatotoxic effect of the selected Rwandese herbal drugs, Crassocephalumvitellinum, Guizotiascabra, Microglossapyrifolia, Ocimumlamifolium and Veronisalasiopus, on the in vivo (guinea pig barbiturate induced sleeping time) and in vitro ( rat precision cut liver slices) models and supported the used of these herbal drugs as antihepatitis remedies.

13. Sathaye S et al(2011) investigated efficacy of polyherbal formulation Livomyn as a hepatoprotective formula against ethanol, carbon tetra chloride and
galactosamine induced hepatotoxicity in rats and revealed the therapeutic effects attributes to synergistic effect of the portent antioxidant and hepatoprotective property of various medicinal plant extract in livomyn formulation.


15. Devraj VC et al administered hepatotoxin inducing morphological, biochemical and histological deterioration in liver of experimental models, those pretreated with Hepax, showed significant protection against hepatic damage by maintaining the parameters at normal level.

16. Shah VN et al (2010) studied the in vitro and in vivo antioxidant and hepatoprotective effects if classical ayurvedic formulation Punarvastakkwath against ethaniol induced hepatotoxicity which contains eight medicinal herbs. It showed preventive physical damage and histological damages and functional changes induced by ethanol in liver and concluded that the significant protective effects on the liver cells is due to its antioxidant effect on hepatocytes.

17. Polyak SJ et al (2010) evaluated the hepato protective action of seven major flavanolignans and one flavonoid silymarin and the data and results suggested that silymarin and silymarin derived compounds influence the hepatoprotective activity.

18. Mohammaedsalem et al (2010) compiled data on promising phytochemicals from medicinal plants that have been tested in hepatotoxicity models using modern scientific system.


22. Girish et al (2009) studied the hepatoprotective activity of six herbal formulations in paracetamol induced liver toxicity in mice. The findings demonstrated the efficacy of polyherbal liquid formulations at two dose levels in PCM induced hepatotoxicity in mice and suggested that a dose adjustment may be necessary to optimize the effects in clinical settings.

23. Md. Shafuiddin et al (2009) investigated an indigenous herbal formulation containing chicory seed, corriande, china root, milk thistle, red rose petals, chirata and indian rhubarb for hepatoprotective activity in CCL4 induced toxicity in rats and it showed significant evidence of hepatoprotective activity as compared to standard drug Liv 52.

24. Deshmukh P et al (2008) studied the hepatoprotective activity of Calotropis giganta root bark on experimental liver damage induced by D-Galactosamine in rats and the effect was almost comparable to that of silymarin.

25. Narayanswamy K et al (2005) prepared polyherbal formulation AyushLiv 04 consisting four medicinal plants and a copper containing stone and was tested for biochemical analysis which provided experimental evidence for the protection of liver by AyushLiv 04 without any side effects.

26. Mankani et al (2005) evaluated the hepatoprotective activity of stem bark of Pterocarpus marsupium and showed the significant hepatoprotective activity of methanolic extract of the plant against carbon tertra chloride induced toxicity in rats.