6. CONCLUSION
CONCLUSION

The constituents isolated and characterised from the four plants in the present study can be categorised under the flavonoids, sterols, triterpenes and steroidal sapogenins. It may be noted, that though hepatoprotective activity has been reported for various classes of phytoconstituents such as the flavonoids, triterpenes, steroids, lignans, polyphenols, glycosides, saponins, volatile oils, coumarins etc the reports on the hepatoprotective activity of the triterpenes, flavonoids, steroids and lignans are comparatively more\(^{305}\).

Extensive work has been carried out on the antihepatotoxic activity of flavonoids as a class of compounds. The hepatoprotective activity of flavonoids like quercetin, luteolin, apigenin, quercitroside etc., has been well documented in literature\(^{306,307}\). Though their mechanism of action has not been very clearly understood, certain flavonoids like silybin, cyanidanol-3, quercetin and taxifolin are believed to act as antioxidant agents and therefore may be useful in the treatment of liver diseases, where lipid peroxidation is an important constituent\(^{308,309}\).

Hence in our study the significant hepatoprotective activity of the ether and ethyl acetate extract may be attributed to the flavonoids which are concentrated in these fractions, while that of the petroleum ether fraction may be due to the steroids present therein.

From the studies carried out, it is evident that the plants, *Thespesia populnea*, *Lagenaria siceraria*, *Capparis spinosa* and *Solanum nigrum* are endowed with significant hepatoprotective activity against CCl\(_4\) induced hepatic injury, thereby justifying their use in the traditional system of medicine.