Chapter - 6

CONCLUSIONS
Chapter-6

**CONCLUSION**

Shodhana of nuts of *Semecarpus anacardium* was done as per method given in Ayurvedic Pharmacopoeia of India. Shodhana improves the yield, decreases the phenolic and flavonoid content; and converts toxic urushiol into nontoxic anacardol derivative thereby reducing toxicity. Shodhana also reduced skin irritation in rabbits.

Both Pre shodhit and Shodhit drugs showed no toxicity up to dose of 2000mg/kg after single dose administration. So these drugs can be considered as Unclassified/Category-5 drug. However, no-observed-adverse-effect-level (NOAEL) and/or no observed effect level (NOEL) for both drugs were found to be more than 500mg/kg.

*Semecarpus anacardium* shows significant cytotoxicity and anticancer activity. The mechanism of cytotoxicity is by inducing apoptosis following caspase 3 pathway. Shodhana helps to decrease cytotoxicity without affecting anticancer activity significantly. The reduction in cytotoxicity may be attributed to reduction in oxidative stress.

Methanolic extract of the nuts of *Semecarpus anacardium* possesses nootropic activity. This nootropic activity may be attributed to its anticholinesterase activity. Shodhana of the nuts attenuate nootropic activity.

So sodhana not only reduces toxicity but also alters its pharmacological activities. The effect of Shodhana on other pharmacological activities of *Semecarpus anacardium* can be studied in future. This work can also be extended to other poisonous and semi poisonous plants for whom shodhana method is described in Ayurvedic Pharmacopoeia of India.