OBJECTIVES
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The main objective of this study is to find out the protective effect of prior administration of the aqueous extract of *Phyllanthus fraternus* and *Hemidesmus indicus* against the allyl alcohol induced oxidative stress. The study includes:

1. To develop oxidative stress by the administration of allyl alcohol in rat model to suit to our kind of experiments.

2. To establish a protective effect of prior administration of the aqueous extract of *Phyllanthus fraternus* and *Hemidesmus indicus* against the allyl alcohol induced oxidative stress.

3. To find out the mechanism by which these plant extracts exert protection.

The following parameters are used to follow the extent of oxidative stress and answer this question.

a) Measurement of membrane integrity (measured by rate of respiration, RCR and P/O) and membrane potential.

b) Liver damage measured by transaminases and from histological studies.

c) Measurement of free radical damage to like lipid peroxidation and protein oxidation.

d) Measurement of activities of antioxidant enzymes like catalase, superoxide dismutase, glutathione peroxidase and glutathione reductase.

e) Measurement of body’s important antioxidant glutathione (both reduced and oxidised form).

f) Activity and purification of glutathione transferases.

g) Measurement of superoxide radical using spin trap by ESR.