

Prophylactic measures

Ambrose Furey

Director, Team Elucidate, Department of Chemistry, Cork Institute of Technology, Rossa Ave., Bishopstown, Cork, Ireland

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Prophylactic or disease avoidance approaches feature prominently in the current issue of Pharmacognosy research.

Onasanwo *et al.* present a very interesting study on the antiulcerogenic and antioxidant activities of a plant native to tropical Africa called *Lagenaria breviflora*. The authors investigate the effect of plant extracts in rats that have been exposed to a number of typical peptic ulcer inducing agents including aspirin, pyloric ligation and alcohol.

Gastric ulcers have a very high prevalence worldwide. Infection with *Helicobacter pylori* infection was once the major cause of gastric ulcer this has recently been superseded by injury caused by aspirin preparations. Patients with peptic ulcers can develop life threatening complications like gastric hemorrhage, perforation and obstruction.^[1] The work of groups like Onasanwo's *et al.* affords the possibility of developing a plant-derived antiulcerogenic agent which could be used in conjunction with drugs and compounds known to injure the gastric mucosa or in those carrying the pylori infection, thus reducing or averting the risk of ulcer. Further, such a product could be used to alleviate and reduce the discomfort of those already suffering from peptic ulceration.

Two papers in the current issue also deal with preventative measures against hepatic injury. Lahore and Das are concerned with the hepatoprotective properties of a plant colloquially known in its native India as Holy or Sacred

Basil (the name implies that this plant is revered by many) against paracetamol-induced liver injury. Again an *in vivo* rat model is used to illustrate the efficacy of the plant extract in reducing the liver damage associated with this common analgesic. Yearly, many patients both young and old are admitted to hospital following deliberate or inadvertent paracetamol overdose most recover but in some cases liver failure can result.^[2]

Patients presenting with paracetamol poisoning are usually treated with activated charcoal or with N-acetylcysteine; however, the prognosis for some is poor with liver transplant the only viable option.^[3] In this context we can appreciate the relevance of the work of Lahore and Das.

The second paper in this issue concerned with hepatoprotective plant extracts is by Babu *et al.* The authors research both the toxicity and liver protecting properties of a plant called *Dichrostachys cinerea* that is found in Southeast Asia, parts of Africa and Australia; a mouse model was used for the investigation. In phase I of the study, mice were dosed with the plant extract to assess its toxicity and in phase II, silymarin was administered concurrently with the plant extract (in controlled studies). The objective was to investigate if the plant extract was effective in protecting the liver from CCl₄. Results were very encouraging indicating that the extract can indeed protect the liver.

The papers that I have selected this month are very refreshing as they present the possibility of a proactive and logical approach to patient treatment. Many conventional medications are indispensable but induce serious side effects; these research papers offer the potential of developing parallel treatments to reduce the risk of harm to the patient.

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Address for correspondence:

Dr. Ambrose Furey,
Director, Team Elucidate, Department of Chemistry, Cork Institute of Technology, Rossa Ave., Bishopstown, Cork, Ireland
E-mail: ambrose.furey@cit.ie