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Editorial

Importance of disseminating research findings

It is our privilege and honor to present the 2011 second issue of this peer-reviewed open-access journal publishing original papers, review articles, short communications and case reports on clinical medicine and related sciences. The need for medical research has become important today because of the rapid and continuing increase in demand for better medical practice for maximizing the quality of health care globally and nationally. Hence it is the responsibility of researchers to play a lead role in conducting investigations in clinical and other related fields to suit the local conditions.

This journal, as the primary objective, attempts to strengthen scientific research culture within the context of globalization of technologies in order to provide efficient health care services to the population. Further, we provide a portal for researchers to disseminate their findings and increase the visibility of their work.

The journal recognizes the multidisciplinary nature of medical science and encourages the submission of material from all the specialties involved in medical research and clinical practice. Since our decision to publish biannually, we have witnessed an increased demand for GMJ in the recent months. This is an encouraging sign as it allows us to select quality manuscripts for publications. While thanking all those who submitted their work to GMJ, profusely, the editorial committee requests all researchers to select GMJ as their first choice.

Editors
Galle Medical Journal
September 2011

Oral Presentation - 06**Efficacy and dose response of *Coccinia indica* extract on glucose tolerance: an *in vivo* study**Attanayake AP¹, Jayatilake KAPW¹, Mudduwa LKB², Pathirana C²¹Department of Biochemistry, Faculty of Medicine, University of Ruhuna, ²Department of Pathology, Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka.**Introduction**

The search for novel hypoglycaemic agents from medicinal plant extracts is of increasing interest in drug discovery. The aqueous leaf extract of *Coccinia indica* (Kowakka, Family: Cucurbitaceae) was selected for screening due to its popularity, documented effectiveness in controlling metabolic alterations associated with diabetes mellitus. The paucity of data on the hypoglycaemic efficacy and the dose response of the extract lead to the investigation of them in normal and alloxan induced diabetic rats as a preliminary study.

Methods

The effect of a single oral dose of (0.25 gkg⁻¹ - 1.25gkg⁻¹; therapeutic dose 1.0gkg⁻¹) leaf of extract on oral glucose tolerance test (OGTT) was evaluated in normal and alloxan induced (150 mgkg⁻¹bw, ip) Wistar rats. Glibenclamide was used as the standard drug (0.5 mgkg⁻¹). The efficacy of hypoglycemic activity was evaluated over a 4 h period, considering total area under the OGTT curve. The results of the test groups and standard were compared with respect to the controls.

Results

No significant change was shown with the control and test groups at doses of 0.25, 0.5, 0.75gkg⁻¹. The extract at 1.0, 1.25gkg⁻¹ improves the glucose tolerance in normal and diabetic test groups by 16%, 17% (p=0.019) and 32%, 34% (p=0.023) respectively. The standard drug exhibited an improvement of 52% in diabetic rats.

Conclusions

The results revealed that, the leaf extract of *Coccinia indica* possesses statistically significant *in vivo* hypoglycaemic activity and the therapeutic dose was found to be the most effective dose on glucose tolerance in normal and alloxan-induced diabetic rats.

Oral Presentation - 07**Polyphenols and *in vitro* antioxidant capacity: a comparison of some medicinal plant extracts**

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Introduction

Polyphenols are abundant micronutrients in the diet and evidence for their role in the prevention of degenerative diseases as cancer, cardiovascular diseases is emerging. The polyphenol content is also mentioned in many commercial nutraceutical products, highlighting its importance as natural antioxidants. Several studies have shown plant polyphenols modulate *in vitro* antioxidant properties. The present study was conducted to establish

the evidence for the contribution of polyphenols to the *in vitro* antioxidative capacity in five widely used medicinal plant extracts. FRAP (ferric reducing antioxidant power) assay was selected in the determination of total antioxidative activity due to high sensitivity, excellent reproducibility and linearity of the assay over a wide range of antioxidants.

Methods

Aqueous leaf extracts of *Osbeckia aspera* (Heen bovitiya), *Azadirachta indica* (Kohomba), *Pavetta indica* (Pavatta), root extract of *Vetiveria zizanioides* (Savanna) and seed extract of *Coriandrum sativum* (Kottamalli) were selected for screening by FRAP assay. Total polyphenol content was determined according to the Folin-Ciocalteu method.

Results

All plant extracts possess an antioxidative activity with satisfactory total polyphenol content. The highest antioxidative capacity (highest FRAP value) of *Osbeckia aspera* was consistent with the highest total polyphenol content. The total antioxidative activity and polyphenol content, was in the decreasing order of *Azadirachta indica*, *Vetiveria zizanioids*, *Coriandrum sativum* and *Pavetta indica* ($P < 0.05$). A linear positive correlation existed between the antioxidant activity and total polyphenol content for all plant extracts.

Conclusion

The results reveal that polyphenolic compounds in plant extracts may be attributed to its *in vitro* antioxidative capacity.

Oral Presentation - 08

Gender differences of hospital admissions for cancers in Southern Sri Lanka

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Introduction

Morbidity and mortality rates of cancers in Sri Lanka are increasing rapidly. Despite its relative importance in curative care, gender differences in cancer health care have been rarely studied in the Sri Lankan context. This study was planned to examine gender differences in hospital admissions for cancers in Southern Sri Lanka. Only a part of the results of a large scale descriptive study is reported here.

Methods

The study was done in the Teaching Hospital Karapitiya, the only tertiary health care facility in the Southern Province in Sri Lanka. Data on cancer patients who was admitted to the hospital in the years 2001-2003 were analyzed.

Results

The number of admissions was seen to be similar by gender (54% were women). Malignant neoplasms of lip, oral cavity and pharynx, malignant neoplasms of digestive organs, malignant neoplasms of respiratory and intrathoracic organs, malignant neoplasms of urinary tract and malignant neoplasms of lymphoid, haemopoietic and related tissues were the common types of cancers found in men while malignant neoplasms of breast,