Results

Hexane extract of rhizome powder of the L. galangal was more effective against Candida albicans and Aspergillus Niger. The hexane extract of L. galangal showed a maximum zone of inhibition against C. albicans (31.2mm ±0.46) compared to the other extracts, while Clotrimazole which was used as a positive control, produced a larger zone of inhibition (46.10mm ± 0.65) and dimethyl sulfoxide (DMSO); negative control did not produce inhibitory zones. Moderate Zone of inhibition showed by methanol extract. Furthermore, all four extracts show higher activity against C. albicans. The hexane crude extract of L. galanga based antifungal cream showed in-vitro antifungal activity against Candida albicans and Asprgillus niger. The antifungal activity of the cream was concentration dependent, and zone of inhibition did increase with higher the concentration of cream. The maximum inhibitions are shown in C. albicans (32.81mm±0.21) with the highest concentration (100mg/ml). No zone of inhibitions for negative controls. The lowest concentration (10mg/ml) did not show inhibition against A. niger.

Conclusions

In conclusion, hexane crude extract of L. galangal based antifungal cream showed in-vitro antifungal activity against Candida albicans and Aspergillus niger. Formulated cream shows good antifungal activity against Candida albicans than Aspergillus niger. Stability determinations of formulated cream showed a stable and good appearance. Further evaluation of shelf life, stability and the safety are required.

PP20

Prevalence of anaemia and its associated risk factors among type 2 diabetic patients attending the Diabetic Centre, Teaching Hospital Jaffna

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Background

Anaemia is one of the common complications of diabetes mellitus (DM), which potentially contributes to the progression and development of other diabetic-related complications.

Objectives

The objective was to evaluate the prevalence of anaemia and its associated risk factors among type 2 diabetic patients, attending the Diabetic Centre, Teaching Hospital Jaffna.

Methods

This was a descriptive cross-sectional study. A total of 300 patients were recruited for this study by using systematic random sampling method. An interviewer-administered questionnaire was used to collect the data. Haemoglobin levels were measured by the cyanmethemoglobin method. Hb levels of <13g/dl for males and <12g/dl for females were defined as anaemia. Statistical analysis was carried out by multivariable logistic regression analysis. The data were presented as mean ± SD.

Results

The prevalence of anaemia among the study population was 23%. The mean Hb levels of anaemic males and females were 9.98 (± 1.38) and 9.36 (± 1.68) g/dl respectively. Majority (49.3%) of the anaemic patients were with mild anaemia and 26 were with moderate anaemia. Prevalence of anaemia was highest among the type 2 DM patients who had hypertension (9.6%). Females (AOR= 0.497, 95% CI: 1.20 – 5.17), from rural areas (AOR= 2.327, 95% CI: 1.172– 7.370) having DM for > 10 years (AOR= 2.586, 95% CI: 1.13 – 5.88) were significantly associated with anaemia.

Conclusions

One out of four diabetic patients had anaemia. Type 2 DM female patients from rural areas, with DM for > 10 years were significantly prone to develop anaemia. Thus type 2 DM patients need to be advised to go for regular anaemia screening for the early diagnosis of anaemia.

PP21

Anti-hypertensive, anti-cholinesterase and anti-cancer potential of *Calendula officinalis* flowers

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Background

Increasing risk of chronic diseases is associated with the dietary patterns of individuals. Oxidative stress is identified as the major cause for the development of these diseases, and inclusion of natural antioxidants in the diet could reduce the risk of chronic diseases. Edible