

SOUTH ASIAN REGIONAL CONFERENCE OF THE WORLD ORGANIZATION OF FAMILY DOCTORS

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RESULTS: Hypomagnesaemia was associated with low high density lipoproteins ($p < 0.05$) and raised triglycerides level ($p < 0.05$) as compared to type 2 DM group with normal magnesium level.

CONCLUSION: Hypomagnesaemia was found to be associated with dyslipidemia so there may have a beneficial effect of consumption of magnesium rich foods like whole grains, legumes, fruits and vegetables (especially dark-green, leafy vegetables) on lipid profile.

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OP 006

TITLE: Comparative cytotoxicity of selected cyanotoxins on Human Embryonic Kidney (HEK-293) and Human Kidney Adenocarcinoma (ACHN) Cells. Piyathilaka MAPC1,2 Pathimalal MM,1Tennekoon KH2 De Silva, BGDNK1

INTRODUCTION AND OBJECTIVES: Freshwater resources are now threatened by the presence and increase of toxic cyanobacterial blooms all over the world. This is typically a direct result of anthropogenic pollution of water bodies, such as partially treated nutrient-rich effluents and the leaching of fertilizers and animal wastes. Approximately 75% of water samples containing cyanobacteria consists cyanobacterial secondary metabolites which can produce toxic effects to livestock, wildlife and human. There is a wide spectrum of cyanotoxins, predominantly causing neurotoxic, hepatotoxic and dermatotoxic effects on contaminated individuals. In diverse aquatic systems, cyclic peptide toxins microcystins (MCs) and nodularin are the most abundant and most noxious cyanotoxins present causing highest impact on hepatocytes. Though these toxins are reputed as potent hepatotoxins, recent evidence suggests that these peptides could cause kidney injuries. Present study was carried out to evaluate cytotoxic effects of some selected MCs (MC-LR, MC-RR, MC-LF and MC-LW) and Nodularin on human embryonic kidney cells (HEK-293) and

METHOD: Human kidney adenocarcinoma cells (ACHN), HEK-293 and ACHN cells were treated with different concentrations of MC-LR, MC-RR, MC-LF, MC-LW and Nodularin (1.0-200 μ M) for 24 h and cytotoxicity was evaluated by Sulphorhodamine B (SRB) assay.

RESULTS: A significant cytotoxicity was induced in both types of cells by the toxins tested. All the toxins had a significantly higher cytotoxicity on normal kidney cells

than on the kidney adenocarcinoma cells. Further, MC-LR had the lowest IC50 values (16.57 \pm 0.035) HEK-293 and 62.96 \pm 0.037 for ACHN cells) while MC-LW had the highest IC50 values (1158.16 \pm 9.025 for HEK-293 and 1589.73 \pm 3.206 for ACHN cells).

CONCLUSION: Overall findings of the present study demonstrate that cyanotoxins could cause cytotoxic effects on kidney cells. MC-LR was the most toxic, MC-LW was least toxic cyanotoxin on both cells tested. MC-RR, MC-LF and Nodularin had moderate cytotoxicity on human renal cells.

Key words: Microcystins, Nodularin, ACHN cells, HEK-293 cells, cytotoxicity

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OP 007

TITLE: Reducing inappropriate prescribing in older adults: A set of systematic Reviews (PRIMA-ed) de Silva REE1, 2, Reeves D2, Martínez Y2, Gutierrez AR3, Sommerauer C3, Woodham A2, Voegels A4, Thekraiat AQ3, Rieckert A3, Weißbach S3, Meinhardt sen M3, Faller B3, Schlager R3, Bureick G3, Stierm Kuthe G3, Koneczny N3, Kaushik N2, Mossabir N2, Schott G5,, Sonnichsen A3

INTRODUCTION AND OBJECTIVES: Inappropriate polypharmacy of older patients poses a serious threat to health and wellbeing. PRIMA-eOS is an EU Commission funded a project across 5 European countries to develop and trial an electronic decision support tool for general practitioners to help reduce polypharmacy in older adults. Objective was to carry out a series of systematic reviews of the literature, evaluating and defining the best evidence regarding the treatment of older adults with polypharmacy.

METHODS: Preparation of study protocols for electronic reviews (SRs); standard operating procedure of 17 researchers. Staged literature search; existing meta-analyses, controlled interventions (CIs) and observational studies (OS). Databases searched: Cochrane Database of Systematic Reviews; DARE; MEDLINE; BASE; HTA and IPA. Inclusion criteria: age \geq 65; relevant endpoints. Selection of studies, data extraction