patients. This study has shown that the abundance and easy accessibility of pumpkin leave in Nigeria is shown to have massive health benefits for preventing sickle cell crisis in pregnant women.

Kumah Ruth Jadu

THE ADVANCEMENT OF PHYTOTHERAY IN THE TREATMENT OF HYPERTENSION AND DIABETES MELLITUS: USAGE OF MORINGA OLEIFERA AS ADJUNCT THERAPY IN NIGERIA

Ukraine, Kharkiv
Kharkiv National Medical University
Department of General Practice – Family Medicine
Науковий керівник: ass. prof. Andrusha A.

Relevance: it is safe to say that hypertension and diabetes mellitus are two amongst the most dreaded diseases in Nigeria due to the associated complications and difficulties in their management. As a result of these being of generally rising concern, the need of resolving to herbs as adjunct therapies was birth. While moringa oleifera (also known as zogale in the Hausa language of northern region of Nigeria where it is most commonly found, Ewe ile in Yoruba and Odudu oyinbo in Igbo) is commonly consumed as food in various soups, salads and tea, it has much more of medicinal than of nutritional effects on the body. The various effects include: antispasmodic, antihypertensive, antioxidant, antimicrobial, analgesic, antifungal, antibacterial, hypolipidemic, diuretic, antidiabetic, antituberculous and hepatoprotective, antiatherosclerotic and immune boosting effects. Phytochemistry of Moringa oleifera revealed constituents such as polyphenols (kaempferol glycosides, rutin, quercetin glucosides, and chlorogenic acids) in high amounts. Also, flavonol glycosides and benzoic acid 4-O-beta-glucoside, benzoic acid 4-O-alpha-rhamnosyl-(1→2)-beta-glucoside and benzaldehyde 4-O-beta-glucoside have been found in methanolic extracts of leaves of Moringa oleifera. Water soluble polysaccharides such as d-galactose, 6-O-Me-D-galactose, D-galacturonic acid, l-arabinose, and l-rhamnose in the same molar ratio were isolated from aqueous extract of pods from Moringa oleifera. Moringa oleifera seeds are said to contain sterols, tocopherols and fatty acids

from n-hexane extract. A potential therapeutic effect under study is a mechanism of balancing the ROS and antioxidants to forestall the oxidative stress damage caused by oxidants in diabetes mellitus.

Aim: The primary goal of our study was to assess the effect of Moringa oleifera on blood sugar and blood pressure in healthy people, identify the potential benefits of using Moringa oleifera for the combined course of diabetes mellitus and hypertension.

Materials and methods: We analyzed the results of a study that was carry out at Department of Human Physiology, College of Medicine, Bingham University, Karu Nigeria and Centre for Infectious Diseases, Nigerian Army Reference Hospital, Yaba Lagos, Nigeria. The materials utilized included glucometer with strips, lancets, Moringa oleifera leaves, D-glucose, sphygmomanometer, stethoscope amongst others. The study was partitioned into two phases with 50 participants in total. 34 of them were selected randomly from Bingham University with ages ranging from 18 to 27 years for the first phase while the remaining 16 subjects with ages ranging from 29 to 48 made up the second phase. Both male and female subjects were selected and their weight and height data were measured respectively. Fasting blood sugar for all the participants was carried out after 12 hours of no meal intake. Blood pressure was measured before/after every meal and M. oleifera intake.

Then the First Phase participants were further subdivided into 5 groups of which Group A was the control group and didn't receive any M. oleifera, Group B were firstly given a meal and 2 hours later, they received M. Oleifera. Group C received Moringa oleifera firstly and after 2 hours, they received a meal. Group D was only given meals, while Group E received M. oleifera without any meal. The Second Phase participants were divided into 2 of which Group F received Low-dose (37.5mg/kg) of Moringa oleifera while Group G received High-dose (75mg/kg) Moringa oleifera.

Results: Two hours after Moringa oleifera intake, the blood pressures of the groups B, C, E, F and G participants were drastically decreased. The thiocarbamate and isothiocyanate glycosides contained in the M. oleifera extract are said to have brought about the hypotensive effect.

At the same time, in this study, it was revealed that no significant hypoglycemic effect was seen in normoglycemic patients fasting glucose levels. In participants of the second phase, their glucose fasting blood glucose decreased after 14 days of Moleifera intake. Decrease in blood glucose was 7.49% for Group F and 5.45% for Group G.

Conclusion:Based on these trials, it can be deduced that Moringa oleifera intake proved effective in decreasing blood pressure in healthy individuals. It can also lower blood glucose in hyperglycemia over a couple of hours. The hypoglycemic effect here is independent of the dose of Moringa oleifera taken. M. Oleifera has therefore proven to be an option as adjunctive therapy in the treatment of diabetes mellitus and hypertension.

Magapu Veera Venkata Akhil

THE VITAMIN D IN PATIENTS WITH OSTEOARTHRITIS AND TYPE 2 DIABETES MELLITUS

Ukraine, Kharkiv
Kharkiv National Medical University
Department of Internal Medicine No.3 and Endocrinology
Scientific advisor: as.prof. Oliinyk M.

The aim of the study is to determine the level of vitamin D in patients with osteoarthritis (OA) and with the combination of OA and type 2 diabetes mellitus (T2DM) and its effect on the course of T2DM and OA.

Materials and methods. In total, 40 patients were examined at the Kharkiv Regional Clinical Hospital". All patients were divided into 2 groups. Group 1 - 20 patients with OA, group 2 - 20 patients with combined course of OA and T2DM. The mean age of the patients was 56.08±0.71. The survey plan included anthropometric data, indices of carbohydrate exchange (insulin, glucose, HbA1C, HOMA-IR), C-reactive protein (CRP). All patients with OA were made X-ray examination of knees. Determination of vitamin D level was done by ECLIA.

Results and discussion: Statistically significant decrease the level of vitamin D was observed in group of patients with comorbid pathology (29.05 □5.18) patients with isolated OA (36.2 □5.21,