chronic pyelonephritis in addition increase in overall energy. On the level of the experiment 17 patients (56%) shown decreased in dysuria and 6 patients (19%) have normalization of temperature.

14 (54%) patients in group B have shown improvement in blood glucose level on 17%. Also noted a correction of the chronic pyelonephritis symptoms: 10 patients from group B (40%) had improvement of dysuria and 5 patients (20%) showed optimized temperature.

There were no side effects from the use of ginseng.

**Conclusion.** As a final result we can say that Ginseng extract showed a tendency to reduce blood glucose level with a variety of other effects such as anti-inflammatory activity, elimination of fatigue in patients with Diabetes Mellitus Type II and chronic pyelonephritis. With the awareness to the interaction with other drugs depending on the case. And we recommend using Ginseng extract in addition to the traditional treatment for this comorbid pathology.

## Tejere Ejiroghene<sup>1</sup>, Ohiaeri Ikenna<sup>2</sup>, Shapkin V.E<sup>1</sup> THERAPEUTIC USE OF BITTER LEAF (VERNONIA AMYGDALINA) IN NIGERIA FOR TROPICAL DIABETES MELLITUS IN PATIENTS WITH COMORBID CHRONIC GASTRITIS

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**Background:** The prevalence of Diabetes Mellitus is on the rise and is becoming a global pandemic, the peculiar challenge of developing countries includes late disease detection and limited access to prophylactic and therapeutic measures. Our case study "Tropical Diabetes Mellitus" which was reported from Sub Saharan Africa, South-East Asia with the highest presence in India poses a serious health challenge due to the atypical presentations, more aggressive nature and poor social economic conditions in these countries. Tropical Diabetes Mellitus is connected with chronic malnutrition (inadequate diet) and diabetes resulting from tropical chronic pancreatitis (fibro calculous pancreatic diabetes). This disease manifests as severe nutritional deficiency, duct gland calculi, abdominal discomfort, endocrine and secretor insufficiency primarily due to the excessive intake of Cassava which is highly utilized in Nigeria.

**Introduction:** Vernonia amygdalina (VA) known best as bitter leaf in Nigeria due to its bitter taste and many other names in the local dialect is a very popular vegetable used as an ingredient in the preparation of many delicacies after soaking or boiling in water to reduce the bitter taste and also for its medicinal value. Our traditional healers provide care based on cultural beliefs,

religious backgrounds and literacy of the community and have used it for generations for a vast range of illnesses. VA is very important for its biologically active components: polyphenols, saponins, fibers, edotides, flavonoids, anthraquinones, alkaloids, terpenoids, tannins, protein, minerals (magnesium, calcium, phosphorus, iron) and vitamins like A, C, B1, B2 & B6.

The relevance of research: Diabetes Mellitus is a lifelong disease with rise in morbidity and mortality in both developed and developing countries. Chronic gastritis is the commonest disease of the digestive system and is a progressive inflammation of the stomach mucosa characterized mainly by loss of appetite, pain, bloating, nausea and vomiting. It is important to understand that comorbid chronic diseases present a challenge to diabetic specific treatment goals and combined management is important for improving patient's quality of life. The commitment to combined lifelong pharmacotherapy can be weighed down by poverty, negligence, exhaustion from long term use and most importantly poor quality or inaccessibility of proper Health care. VA is a further remedy that is instantly out there and value effective to the locals. The purpose of this literature is to highlight that VA is a herbal medicine that has a chemically complex blend of major and minor ingredients with multiple possible targets which includes; reducing blood sugar levels in Diabetes Mellitus, reduces triglyceride and cholesterol levels, controlling blood pressure, preventing neuropathy and stimulating pancreas and is also used in other conditions like fever, intestinal worms, snake bites, common cold, kidney problems, fertility inducing, stomach upsets, wound healing, malaria, the list is anti-inflammatory, shockingly endless. VA has antioxidative and gastroprotective properties. It should be noted that VA also has hepatoprotective, nephroprotective properties.

**The aim:** To show the advantages of Bitter leaf (Vernonia amygdalina) in patients with comorbid Tropical Diabetes Mellitus and Chronic Gastritis.

**Methods:** 43 patients were selected with Tropical Diabetes Mellitus coexisting with chronic gastritis (hypo acidic form which is typical for diabetic patients) to carry out this research from the Illah village in Oshimili north local government area, Delta state, Nigeria. Of the 43 patients, 23 were male and 20 were female from age 35-55 years with persistent Fasting blood glucose (FBC) levels ranging from 130-180 mg/dL, informed consents were procured from all patients. All patients were given the traditional treatment which consists of dietary intake, lifestyle adjustments and insulin therapy of 28 – 42 units daily depending on their metabolic requirements. 22 patients were given additional boiled leaf extract of VA. They were all closely monitored for 2 weeks and checked their fasting blood daily.

**Results:** The study shows that 19 patients who took only traditional therapy showed slight reduction of FBC of approximately 15%, 2 of the patients were non-compliant and had high levels of hyperglycemia FBC of 165 mg/dL and 190 mg/dL respectively. 14 patients from this group showed

increase of appetite and decrease in gas and dyspepsia. The remaining 22 patients who had leaf extract of VA added had a 24% decrease in FBC. The bitter taste of VA helped all of them to stimulate appetite, gastric secretions and enzyme production improving bloating, gas and dyspepsia.

Conclusion: Based on the obtained results we can establish that VA shows prospects with its multi-therapeutic effects, its effectiveness on Tropical Diabetes Mellitus with comorbid chronic gastritis. The herb shows no considerable side effects and it is recommended to incorporate this as an additional therapy for Diabetes Mellitus coexisting with chronic gastritis. From our research we understand that people living in rural areas ignorant of their diabetic status with poor diet and a steady intake of Bitter leaf (VA) benefit greatly from its properties.

## Tereshkin K., Tereshkina O. INFLUENCE OF POLYMORPHIC OPTIONS OF THE VITAMIN D RECEPTOR GENE ON THE FORMATION OF EARLY OF OSTEOPENIC CONDITIONS WITH THE COMBINED COURSE OF OSTEOARTHRITIS AND OBESITY IN YOUNG SUBJECTS

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**The objective** of the work was to establish the prognostic and diagnostic value of the G63980A polymorphism of the vitamin D receptor gene, reference SNP (rs) 1544410 (*VDR*) and to determine the possibility of predicting the risk of development of bone structural disorders in the combined course of osteoarthritis (OA) and obesity in young subjects.

Materials and methods. 96 young age patients (35.5±0.9) with comorbid OA and obesity, and 96 practically healthy individuals identical in age and sex were examined. The control group consisted of 18 people with OA and normal body mass. Anthropometric criterion of obesity was considered the Quetelet index (BMI). The assessment of the functional state of the musculoskeletal system and the analysis of indicators of algo-functional activity were performed using the WOMAC test questionnaire. BMD measurements were performed using dual energy X-ray absorptiometry (DEXA) on the HOLOGIC Explorer QDR W Series Bone Densitometer (USA). Gene polymorphism was investigated in the human genome by real-time polymerase chain reaction using the VDR kit (Bsml c.IVS7 G>A, rs1544410) "Vitamin D receptor mutation". Statistical processing of the measurement results was carried out using the methods of variation statistics using the licensed software Stata 12.1. To assess the statistical validity of the differences between the mean values of parameters in the comparable groups,