

Vol. 5 (1): 1- 6 (2015)

THE DANUBE – CONTROLLING FACTOR OF THE ECOLOGY OF THE DANUBE DELTA AND THE BLACK SEA

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ABSTRACT

The Danube represents the essential factor that influences the main ecological characteristics of the Danube Delta and, mostly, of the Black Sea. The hydrological, physical-chemical, and hydro-biological quantitative and qualitative variations bring to the modifications of the biotic and abiotic structures of the Danube Delta and the Black Sea in a rhythm and concordance with the dynamics of the physical-chemical and biological parameters specific to the Danube. Starting from this point, it can be noticed the controlling character of the ecology of the Danube Delta and the Black Sea. This fact appears more obvious in the conditions of the last 50 years, when the large pollution of the river led to radical ecological modifications within the Danube Delta and the Black Sea, during a very short historical period. The main factor, which determined fundamental modifications in the structure and functionality of the aquatic ecosystems is due the intensification of the man-induced eutrophication process. Phytoplankton increased, but submerged macrophytes disappeared at the same time with certain populations of invertebrates and species of fish that populated the associations of macrophytes.

Key words: the Danube Delta, the Black Sea, control factor, phytoplankton.

Vol. 5 (1): 7- 10 (2015)

THE PRESENCE OF THE PARASITE *MYXOBOLUS* SP. (MYXOZOA: MYXOBOLIDAE) AT THE SPECIES *CARASSIUS AURATUS GIBELIO* FROM THE SHALLOW RESERVOIRS WITHIN THE LOWER HYDROGRAPHIC BASIN OF THE JIU RIVER (DOLJ – ROMANIA)

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ABSTRACT

The protozoan *Myxobolus* sp. belongs to the phylum Myxozoa, a phylum that groups animals characterized by an insufficiently elucidated biological cycle, involving a single host. It parasitizes a wide range of fish hosts, causing them the disease known as myxoboliosis, manifested by difficulty in swimming and slow growth rate. Myxosporidia passes through two stages of development in their biological cycle: vegetative and spore. The spore stage represents both a form of resistance and reproduction. In the fall of 2013, there were performed two sampling sessions in the nine small reservoirs located along the Preajba Valley river. By means of monofilament nets, there were caught 31 specimens of fish belonging to the species: *Carassius gibelio*, *Perca fluviatilis*, *Abramis brama*, *Lepomis gibbosus* and *Alburnus alburnus*. They were transported in a plastic container in the laboratory of the Sanitary Veterinary Directorate Dolj. There were prepared and examined native preparations obtained from brachial scrapings and squash preparations obtained by crushing and pulverization of the cartilages of the gill arches, in a short span. Microscopically, the spores are present only in one species, namely *Carassius gibelio*. In order to establish the etiologic agent and highlight the spores, there were used May Grunwald - Giemsa staining method, as well as malachite green method. The parasitosis evolved subclinically, the parasitized fish not emphasizing obvious evidence of disease.

Key words: Preajba Valley river, *Carassius gibelio*, *Myxobolus* sp, parasitosis.

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HABITATS DIVERSITY OF *ADONIS VERNALIS* SPECIES OF THE REPUBLIC OF MOLDOVA

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ABSTRACT

Have been identified and studied habitats of rare and threatened species – *Adonis vernalis* L., (Ranunculaceae), the chorology, discussing physical and geographical peculiarities of habitats, plant-communities where species is found, possible threats and dangers that lead to species extinction. Was indicated the occurrence of the species in 43 habitats of Moldova territory and studied a new area of *Adonis vernalis* distribution, which was proposed to be included in the protected areas of the Republic of Moldova, as the mixed nature monument – “Adonis”.

Key words: *Adonis vernalis*, protected threatened plant, habitats.

ALTERNATIVES OF THE GREEN TISSUE IN THE CITY CENTRES

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ABSTRACT

In rapidly developing countries in the world, the number of urban population and urban growth by further increasing the value of land and leads to high density the construction of the structure. This loss can change the green space in cities and is seen as the root cause of many environmental problems in these areas. Living in those urban built environment can need to get breathe under the pressure of parks, gardens and so on. Dwindling green spaces around buildings, streets and sidewalks of the urban, daily life continued moving away from nature day by day. Give more space to green space in urban areas in search of nature at every opportunity with the integration of assessment and conservation of natural resources are important issues on the world agenda, environmental issues in global scale such as climate change, the built environment, increase the "green" awareness and cities with the natural environment, and creating conditions future use of natural resources gives direction to work on building new habitats. Thus today's rapidly devolving urbanization destructive effects everyday minimize the life and to built environment is under pressure to sustain the people who have green space/area/front/surface alternatives to provide recently produced an ecological and aesthetic green tissue alternatives that we are need.

Keywords: Green Tissue, City Centres, developing, urban population

Vol. 5 (1): 23- 28 (2015)

PRIVATE HOSPITAL MARKETING IN HEALTH SYSTEM OF ALBANIA**Azeta Tartaraj***Universiteti "Aleksandër Moisiu" Durrës, Albania;*E-mail: azetatartaraj@yahoo.co.uk

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ABSTRACT

The last decade private hospitals play a significant role in health system in Albania. Access to private hospital services however, is still very limited largely because they cost significantly more than services in the public sector. Despite the country's low economic level, private hospitals have experienced substantial growth with the total number of beds increasing and they are located mainly in capital city Tirana. The high standards of quality of care, services, medical equipments and facility premises are far better as compared to public hospitals. Health care marketers use advertising in its many forms to sell their products and services. Promotional campaigns, television spots, brochures and leaflets are the main marketing tools utilized to convey their message to general public. The private hospital industry consistently attracts the attention of health care funders and regulatory authorities attempting to include some of their services into public scheme of reimbursement. Patients frequenting private hospitals act more like "consumers" of health care. Like consumers in most other industries, health care consumers are required to choose from an array of products and services offered to them. The study focuses on the distribution of private hospitals in Tirana and the types of services provided by those hospitals and hospital marketing techniques.

Key words: private hospital, marketing technique

Vol. 5 (1): 29- 34 (2015)

BIOMARKERS AND CERVICAL LENGTH TO PREDICT SPONTANEOUS PRETERM BIRTH IN HIGH-RISK WOMEN

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ABSTRACT

Preterm birth still remains a major cause of perinatal morbidity and mortality, and its rate has not declined over the last two decades despite the improvement in perinatal management. The aim of the study is to assess the use of fetal fibronectin (fFN) testing and cervical length (CL) measurement to predict preterm delivery. This is a prospective study of patients admitted between November 2009 and June 2011 to the University Obstetric Gynecologic Hospital “Mbretresha Geraldine”, in Tirana, with the diagnosis of increased preterm uterine contractility and intact membranes between 22 and 34 weeks of gestation. Among the 249 women with complete outcome, four were excluded from the final analysis as two had assessment for fFN but no CL measurement, and another two had CL measured but no screening for fFN. Among 245 women with complete results, the mean gestational age at recruitment was 29.4 ± 2.5 weeks. Six women (9.6%) delivered within two weeks of assessment, and 14 (22.5%) delivered before 34 weeks. A positive fFN test resulted in a sensitivity of 83%, a specificity of 84%, a positive predictive value of 36%, and a negative predictive value of 98% for delivery within two weeks; for CL < 25 mm, these figures were 50%, 52%, 10%, and 91%, respectively. In this study, fFN screening provided the best predictive capacity. Cervical ultrasound after fFN triage is an acceptable option, depending on the resources available.

Key words: fetal fibronectin, preterm delivery, ultrasonography, cervical length,

ADSORPTION OF LEAD IONS ON NATURAL AND ACID ACTIVATED PRRENJAS MONTMORILLONITE CLAY

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ABSTRACT

The aim of this research work is to study the feasibility of the natural and sulfuric acid activated Prrrenjas montmorillonite clay for the removal of Pb^{2+} from aqueous solutions. In this study montmorillonite clay is used, which is taken from the spring of Prrrenjasi. Clay is washed before use and then was activated with sulfuric acid at different concentration (10, 22 and 35%). The optimal conditions on adsorption of Pb^{2+} on clay were firstly determinate. For this a series of solutions with a certain concentration of Pb^{2+} ions were prepared. These solutions are put to interact with clay. After the completion of the interaction time the concentration of Pb^{2+} ions is measured and the amount of Pb^{2+} ions adsorbed is calculated. Solution concentration measurements are performed with atomic absorber. The adsorption capacity of natural and acid activated montmorillonite clay for Pb^{2+} ions was also investigated. All specific surface area of natural and acid activated montmorillonite clay was measured by N_2 adsorption. The results showed that acid activated clay increased its specific area respectively: natural clay 83.75 m^2/g 10 % acid activated 110.4 m^2/g , 22 % acid activated 200 m^2/g and 35 % acid activated 265 m^2/g . The adsorption capacity of natural and acid activated montmorillonite clay were respectively: natural clay 17.9 mg/g, 10 % acid activated 18.79 mg/g, 22 % acid activated 18.91 mg/g, and 35 % acid activated 20.78 mg/g. The experimental results don't show a significant increase in the adsorption capacity with acid activation. The Langmuir and Freundlich isotherms were applied to explain the adsorption process. The Langmuir model fitted better with the experimental data rather than the Freundlich model. High values of correlation factor R^2 (> 0.97) for all clays indicate good agreement between experimental and predicted data using the Langmuir equation. All the R_L values for the adsorption of Pb^{2+} ions onto natural and acid activated montmorillonite clay shows that the adsorption process is favorable. The results of this study showed that the Prrrenjas montmorillonite clay powder can be efficiently used as a low-cost adsorbent for the removal of Pb^{2+} , from aqueous solution without needed to activate with sulphuric acid.

Keywords: Adsorption, Langmuir isotherm, Acid activation, Clay, Lead removal

Vol. 5 (1): 43- 46 (2015)

SYNDROMIC SURVEILLANCE OF SEXUALLY TRANSMITTED INFECTIONS IN ALBANIA

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ABSTRACT

The availability of baseline information on the epidemiology of sexually transmitted infections (STIs) and other associated risk behaviors is essential for designing, implementing, and monitoring successful targeted interventions. The aim of the present study was to document the pattern of common STIs and to evaluate the performance of syndromic case management against their laboratory diagnoses. The study included all cases of sexually transmitted infections reported to the Public Health Institute during the period September 2007 - December 2012 with one or more of the complaints as enunciated by WHO in its syndromic approach for the diagnosis of STIs. Detailed history, demographic data, and clinical features were recorded and screened for STIs. A total of 5344 cases were notified in the public health sector. The mean age of patients was 30 (± 8.4) years with a range 14 to 84 years. 2.2% were men and 97.8% were women. 43.5% belonged to agegroup 20-30 years old. The syndrome most frequent syndrome were vaginal discharge in 91.6% of cases, while 36.0% of cases reported for lower abdominal pain. A routine surveillance system gives an incomplete picture of the epidemiological situation. Furthermore, there is general evidence that many cases of STI are not accounted for because of the high frequency of asymptomatic infections, and the frequent tendency for STI patients to seek care outside the public health services.

Key words: epidemiology, management, laboratory diagnoses, public health

Vol. 5 (1): 47- 54 (2015)

THREATENED PLANT SPECIES AND HABITATS FROM THE PRUT RIVER BASIN, REPUBLIC OF MOLDOVA

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ABSTRACT

Some rare species from the Republic of Moldova, with international importance, are included in the European Red Book and Annexes of Conventions concerning biodiversity and habitats. Of the 18 international environmental conventions ratified by the Republic of Moldova, some directly promote biodiversity conservation: the Convention on International Trade in Endangered Species of Wild Fauna and Flora (Washington, 1973), known under the abbreviation CITES, Convention on the Conservation of European Wildlife and Natural Habitats (Bern, 1979) etc.

Keywords: threatened species, conventions, Prut River Basin, habitats, protected areas.

Vol. 5 (1): 55- 60 (2015)

CONTRIBUTION TO THE STUDY OF WILD CHERRY SEEDLING FEDERATION OF BOSNIA AND HERZEGOVINA

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ABSTRACT

This paper presents the results of the inventory of wild cherry genotypes and their research in specified areas of the Federation of Bosnia and Herzegovina. The increasing number of wild genotypes (1050) were determined by the inventory, the recorded number, three hundred and fifty had extremely favorable biomorphological and pomological and nine genotypes were rated superior by their investigative morphological, phenological, chemical and other biological characteristics. These genotypes highlights the robustness of habitus, large cropping have been selected and resistance to frost and drought, as well as quality, juicy and tasty berries Noćajević, et al (2011). Genetic potential of a wild cherry is tremendously important as suitable for selection and breeding of indigenous varieties of cherries which have had a long tradition in Bosnia and Herzegovina.

Keywords: inventory, localities, superior genotypes cherries, biomorphological and pomological

Vol. 5 (1): 61- 66 (2015)

BIOLOGICAL SURVEILLANCE OF INFECTIOUS AGENTS AMONG MULTI-TRANSFUSED PATIENTS IN ALBANIA

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ABSTRACT

Control of blood for HIV and other infectious agents in Albania is mandatory by constitutional law. Individuals receiving multiple transfusions as well as other vulnerable groups are routinely checked for the presence of infectious agents. The aim is to estimate the prevalence and the epidemiological pattern of infectious agents among multi-transfused patients. Blood specimens were collected from patients receiving multiple transfusions in units of hemodialysis and oncohematology in several districts of the country over the period 2006-2008. All specimens were tested for viral hepatitis B and C, and HIV using ELISA method. In total, 642 patients were involved in the surveillance of patients receiving multiple transfusions during the period 2006-2010. The mean age of patients was 31.2 ± 19.8 years, with a range 1 to 78 years and a median 27 years. 260 (56%) of the patients were male and 282 (44%) women. Most of patients belong to agegroup 10-19 years (25%). During the year 2006 46 (34.1%) out of 135 patients suffering from thalassemia tested positive for infectious agents, during 2008 113 (31.5%) out of 359 new patients and during 2010 97 (65.5%) out of 148 new patients tested positive for infectious agents presenting a significant upward trend of infected patients, ($p < 0.01$). Transfusion safety begins with healthy donors. A fundamental part of preventing transfusion transmitted infections (TTI) is to notify and counsel reactive donors.

Key words: biological surveillance, infectious agents, Albania

Vol. 5 (1): 67- 72 (2015)

TRADE EXCHANGE FROM CEFTA COUNTRIES: CASE OF ALBANIA

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ABSTRACT

Liberalization of trade exchange in the CEFTA framework is and will be an opportunity to access the market considering that the Albanian products will be offered to an over 25 million people market; will increase the trade volume with CEFTA countries and will enable a lower price for the final consumer. On the other hand the liberalization will mean an increase in competition between domestic and imported products. Some of Albanian products are starting to become competitive in the market, increasing in this way the Albanian exports and improving somehow the trade balance for the agriculture sector. This fact is proved especially for fruits and vegetables, which had a significant increase (export) in 2013. The main challenge that comes before us is to be able to use this increased opportunities to enter markets which means to increase domestic product, in quantitative and qualitative terms, and to concentrate on the export of those products for which our country has shown that he can be competitive in the markets of CEFTA (as early fruits and vegetables) or other products that might have a comparative advantage.

Keywords: Liberalization, lower price, competitive, comparative advantage.

Vol. 5 (1): 73- 76 (2015)

EPILEPSY IN CHILDREN WITH AUTISM SPECTRUM DISORDERS**Armand Shehu¹, Migena Kika², Afërdita Tako¹, Sonila Tomorri¹, Robert Rado³, Aida Bushati¹,
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ABSTRACT

Epilepsy is quite common in autism spectrum disorders, and it is increasingly recognized as an additional clinical problem that must be dealt with. The frequency of an abnormal electroencephalogram and/or epilepsy in children with Autism Spectrum Disorder (ASD) is not well defined. The aim of the study to estimate the prevalence of epilepsy and electroencephalographic abnormalities in children with ASD. Epilepsy was diagnosed in 31 (28%) of children. Overall, the electroencephalogram was abnormal in 12 (11%) of children whereas 89% of the children had normal electroencephalograms. Abnormal electroencephalogram was found in 8 (26%) of children with epilepsy and in 4 (5%) of children without epilepsy. Identification of children with increased risk for epilepsy has important implication for the prognosis and treatment of the disease.

Key words: autism, epilepsy, electroencephalography

Vol. 5 (1): 77- 82 (2015)

SURGICAL MANAGEMENT OF THYROID NODULES

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ABSTRACT

Thyroid nodules are so common as to constitute a public health problem. The abundant literature on their diagnostic management reflects the absence of a consensus. Fine-needle aspiration biopsy (FNAB) is the gold-standard diagnostic investigation. The objective of this study was to describe the diagnosis and surgical treatment of nodular disease and cancer of the thyroid gland. This is a prospective study of 103 consecutive patients treated surgically for thyroid nodules at Regional Hospital, of Shkodra, Albania over the period 2011-2013. There were 26 (24.8%) males and 79 (75.2%) females, with a mean age of 47.4 years old with a range 18-78 years old). The female-to-male ratio was 3.0/1. The average age for men was 41.8 years old and 47.85 years old for females. The mean history period was 4.9 years and the mean duration of hospitalization was 8.2 days. The reason for surgery was presence of mechanical complications (12%), hyperthyroidism (15%), solitary nodules (52%) and suspected cancer (21%). FNA was done in 103 patients. Compared with histological findings, among patients with malignant cells or suspicious follicular or papillary cells by FNAB, 44.4% had cancer; among patients with normal FNAB findings, 13.8 % had cancer. This difference was highly significant (OR, 4.9; 95%CI, 1.8-4.1 p<0.01). Fine-needle aspiration biopsy are the best diagnostic tools for differentiating benign nodules from suspicious or malignant nodules.

Keywords: thyroid nodules, diagnosis, biopsy

Vol. 5 (1): 83- 86 (2015)

EVALUATION OF RISK FACTORS IN ACUTE MYOCARDIAL INFARCTION PATIENTS ADMITTED TO THE CORONARY CARE UNIT

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ABSTRACT

The aim of this study was to provide an overview of the risk factors for acute myocardial infarction in patients attending Shkodra regional hospital. There were 168 admissions during the study period. (77%) were males and (23%) females, giving a male to female ratio of 3.1:1. The mean age of patients was 60.2 (SD 10.2) years (range 35–93 years). Risk factors: Smoking, diabetes, hypertension and history of coronary heart disease were the most common cardiovascular risk factors in the sample studied. More than half (53%) of patients were reported to be current smokers and 15% were ex-smokers. Almost half of patients (51%) were identified as having diabetes mellitus (type 1 or 2 unspecified). History of hypertension and coronary heart disease were reported in 36% and 23% of patients respectively. Dyslipidaemia and history of cerebrovascular accidents as risk factors were reported in 9.6% of patients. Prevention strategies should be implemented in order to improve the long-term prognosis and decrease overall morbidity and mortality from coronary artery disease in patients.

Key words: myocardial infarction, smoking, diabetes, hypertension

Vol. 5 (1): 87- 90 (2015)

MAMMOGRAPHIC SCREENING IN THE DETECTION OF MICROCALCIFICATIONS AND EARLY BREAST CANCER

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ABSTRACT

Micro calcifications can occur in benign and malignant diseases. Scattered bilateral micro calcifications are usually present in benign breast diseases, but irregular shape and development of new calcifications among diffusely scattered bilateral calcifications, on follow up study, should also raise suspicion for being malignant. The aim of this study was to determine the frequency of micro calcifications and malignancy in women included in a screening program. This is a prospective study: 750 women were included in a screening program at regional hospital in Shkodra over the period 2012 -2013. Clustered and scattered micro calcifications were included in the study. Age women included in this study ranged from 30-80 years (mean 52 years). Micro calcifications were detected in 113 (15%) of screened women. Ninety seven (86%) had clustered micro calcifications and 16 (14%) had scattered micro calcifications. In 35(31%) of calcifications was detected a cancer. 53(47%) women had <10 micro calcifications/cm², 26 (22%) had 10-20 micro calcifications/cm² and 12 (10%) had >20 micro calcifications/cm². Irregularity in size of micro calcifications was found in 55 (48.7%) of patients, while mean density of micro calcifications was found in 57 patients. The study highlights the effectiveness of the screening program in diagnosing micro calcification and malignancy in women.

Key words: breast, micro calcifications, cancer, screening

Vol. 5 (1): 91- 96 (2015)

MONITORING OF SULPHUR CONTENT IN DIESEL IMPORTED IN ALBANIA AND ENVIRONMENTAL IMPACT, DURING THE PERIOD 2007 – 2012

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ABSTRACT

Development of road transport over the last decade has been accompanied by a growing trend to derivative fuel imports, gasoline and diesel, at 70 - 75%. This development among others, is associated with negative impacts on environmental pollution especially in urban areas at the rate of 25 -75% of the total pollution. Sulphur oxide (SO_x) emissions from diesel vehicles are one of the main pollutants of urban air. The sulfur level in diesel fuel ranges from below 10 ppm to above 10,000 ppm. The diesel imported during this period is 2 244 thousand tons. In these conditions, continuous monitoring of sulfur content in diesel takes a special significance to improve its quality standards. In developing countries improvements to standards on the control of sulphur content in diesel fuel actually is in focus. In our country, a significant improvement of laws mark the adoption of Decision 147, dated 21.03.2007, in which the Sulphur content to imported diesel was limited at 350 mg/kg for the period from 1 January 2009 and 10 mg/kg for the period from 1 January 2011. The aim of this study is monitoring of the sulfur content in diesel import during the period 2007-2012, the environmental effects in urban areas and the impact of legal restrictions undertaken in the country to reduce the sulphur level to transportation fuels.

Keywords: Diesel, environmental impact, sulphur content, standard, pollution.

Vol. 5 (1): 97- 100 (2015)

HYPERTENSIVE CRISIS IN EMERGENCY ROOM

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ABSTRACT

Hypertension is the most widespread disease nowadays and one of the most common causes of visits and emergencies with significant acute and chronic morbidity. The aim of the study is to describe the clinical signs/symptoms, and the frequency of urgency and emergency hypertension. This is a prospective study including 164 patients who presented with hypertensive crisis in the emergency room of University Hospital Center "Mother Teresa" Tirana during the year 2013. All patients over 18 years of age who presented to the emergency department with a hypertensive crisis were included in the study. The mean age of patients was 59.6 (\pm 14.8) years. 102 (62%) of patients were males and 62 (38%) females. 94 (57.3%) patients met the criteria for medical emergency while 70 (43%) patients for urgency. Dyspnea (41.1%), chest pain (37.2%) and neurological deficit (27.2%) were more common signs/symptoms in patients with emergency while headache (42.0%), chest pain (41.2%) and dyspnea (34.3%) in those with urgency. Among the forms of emergency most frequent were acute pulmonary edema (30%), myocardial infarction/unstable angina (25%), ischemic (22%) and hemorrhagic stroke (14%). 75% of the patients were diagnosed with hypertension and were on medication. Hypertensive crisis is a clinical entity associated with high morbidity in the emergency room. Adequate control of blood pressure is crucial to prevent permanent damage to organs.

Key words: crisis, hypertension, emergency, complication

Vol. 5 (1): 101- 106 (2015)

DIABETIC RETINOPATHY IN A TERTIARY HOSPITAL**Orgeta Dervishi¹, Klodeta Muçaj¹, Migena Gega¹, Vilma Mema²***¹Faculty of Medical Technical Sciences, Tirana, Albania;*
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ABSTRACT

Diabetes mellitus (DM) is one of the most common noncommunicable diseases with an increasing incidence worldwide. This study aimed at determining the frequency and severity of diabetic retinopathy, in patients in a tertiary hospital. This is a cross-sectional study including 253 patients with diabetes mellitus (DM) referred for examination at the eye clinic at university hospital centre "Mother Teresa" in Tirana over the period 2010-2013. Ophthalmologists assessed vision, ocular pressure, anterior and posterior segment and fundus oculi. The prevalence of ocular complications of DM and risk factors. The prevalence of RD was 55% (95% CI 49.6 to 60.1) of whom 33% in non-proliferative and 22% in stage proliferative stage. Diabetic macula was found in 17% of patients. The prevalence of blindness among patients was 4%. Prevalence of cataract and glaucoma were 14.3% and 2.6% respectively. The risk of retinopathy increased by 1.6 with each year increase of age ($p < 0.01$). Duration of DM > 10 years ($p < 0.01$) and hypertension ($p < 0.01$) were significant predictive factors for diabetic retinopathy. Regular screening in patients with diabetes for early detection of proliferative retinopathy and increasing public awareness are highly recommended.

Key words: retinopathy, diabetes, patient, hypertension

Vol. 5 (1): 107- 114 (2015)

SPATIO-TEMPORAL SCORCHED LAND AND RESULTANT SEQUESTERED SOIL ORGANIC CARBON IN SELECTED MIOMBO WOODLANDS OF WESTERN TANZANIA

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ABSTRACT

Ecological impacts of soil degradation in forests have been variably reported. The present study aimed at exploring the consequence of fire extent on the sequestration of soil organic carbon. Data for scorched land was captured by Landsat in Kitwe and Ilunde forests with different levels of fire extent in western Tanzania. Both forests were severely disturbed previously. Soil samples were collected from thirty plots located 150 m and 100 m apart in Ilunde and Kitwe forests respectively, for determination of soil bulky density and percentage organic carbon. In each plot soil samples were collected from four points, thereafter treated differently depending on the purpose of sampling. Percentage organic carbon was obtained using Walkley-Black method, and then the sequestered soil organic carbon was estimated in tonnes per hectare as a product of percentage organic carbon, soil depth and bulky density. The difference in sequestered soil organic carbon between the two forests was analyzed using t-test. Spatio-temporal scorched and vegetated land lands of the forests were produced from satellite images after computing Normalized Difference Vegetation Index (NDVI) for the years 1990, 2000 and 2011. In 30 cm soil depth, more soil organic carbon of $17.9 \pm 0.9 \text{ t ha}^{-1}$ (two folds) was recorded from Kitwe than Ilunde forests ($P < 0.01$, $t = 9.935$, D.F. = 29). In Ilunde forest, the extent of fire increased with time, while scorched and vegetated lands increased and decreased with time respectively. In Kitwe forest, the trend was opposite whereby the scorched land decreased and vegetated land increased with time. Prevalence of wildfires over large areas in forests lowers soil organic carbon sequestration. The contribution of ash in enrichment of soil organic carbon sequestration in forests could be only overstated.

Key words: Fire extent; NDVI; scorched land; soil organic carbon; vegetated land

CALCULATION OF COST DURING TIMBER KILN DRYING IN KOSOVO

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ABSTRACT

The drying process of timber in Kosovo mainly is done by conventional kiln (almost 90% around the world are using the same), because of easy kiln characteristics and lower price. The cost of kiln drying loads the selling price of wooden material. In the study is selected timber of beech (*Fagus Sylvatica* L. 28mm thickness), with initial moisture content 60% and final moisture content $\approx 10\%$. A case study is chosen conventional kilns in Kosovo. Results from measurements give the costs/m³: The capital cost 4,37€/m³; The maintenance cost 0.65€/m³; The electricity cost 4.26€/m³; The labor cost 4,11€/m³; the heat energy cost 3.61€/m³; the cost of drying quality 8.74€/m³, and the tax cost 3,37. Based on the calculations, to dry 1m³ (28mm thickness) of the beech wood with initial moisture content 60% and final moisture content $\approx 10\%$, dried in conventional kiln drying in Kosovo are spent 29,5 €/m³. Objectives: This paper is attempted to find out the cost of timber drying, based on literature data and our practical part. The material can be useful for all drying subjects in Republic of Kosovo.

Keywords: beech, conventional drying, moisture content, cost of drying.

Vol. 5 (1): 119- 122 (2015)

SURVEY FOR ANTIBODIES TO COXIELLA BURNETII IN SELECTED POPULATIONS OF DOMESTIC ANIMALS IN ALBANIA

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ABSTRACT

Coxiella burnetii, as the etiology agent of Q Fever, is a zoonotic pathogen, which can cause abortion in animals. The objective of this work has been to investigate the serological response against Coxiella burnetii in aborted cattle, sheep, goats and pigs. The knowledge of the epidemiology and prevalence of zoonotic diseases, like Q Fever in Albania is limited. Therefore sera from aborted animals were used for this investigation where 60 cattle, 32 sheep, 44 goats, 10 pigs were involved in the study. The serological examination was carried out using CFT (Complement Fixation Test). It was found the presence of Coxiella burnetii in 28 (47%) cattle, the maximal titer was 1:160 in 4 sheep, the maximal titer was 1:20 and in 25 (57%) goats, the maximal titer was 1:80. Antibodies against Coxiella burnetii was not found in blood taken from aborted pigs. Data show that coxiella could be involved as cause of abortion in ruminants. Identification of coxiella from organs of infected animals or aborted fetuses, isolation in chicken embryos and cell lines could clear the diagnosis.

Key words: serological examination, Coxiella burnetii, aborted ruminants, aborted pigs, Complement Fixation Test

PREVALENCE AND ANTIMICROBIAL PROFILE OF METHICILLIN-RESISTANT *STAPHYLOCOCCUS AUREUS*

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ABSTRACT

Staphylococcus aureus is a hospital and community-acquired pathogen that causes a broad spectrum of diseases, ranging from skin and soft tissue infections to endocarditis and fatal pneumonia. This study was carried at Institute of Public Health in Tirana, Albania from June 2011 to 2014. A total of 756 isolates of *S. aureus* were included in the study. These strains were obtained from various clinical samples like pus, sputum, urine, blood, and body fluids from the inpatients and outpatients at University Hospital Center “Mother Theresa” in Tirana, Albania. A total of 756 isolates of *S. aureus* were obtained from different clinical samples from inpatients (66.3%) and outpatients (33.7%) of the hospital. Pus (39.6%), sputum (15.1%) and nasal secretions (11.1%) accounted for the majority of isolates, followed by blood and body fluids. Methicillin resistance was documented in 187 (24.7%) of 756 isolates (fig. 1). 94 (50%) of MRSA isolates were collected from outpatients whereas 93 (50%) were collected from inpatients. The prevalence rate of MRSA was found to be 24.7% (12). The majority of MRSA strains were isolated in pus (55.1%), blood (14.4%), sputum (10.7%), body fluids (10.2%), nasal secretions (5.9%), urine (2.1%) and bronchial lavage (1.6%). The most effective way to prevent MRSA infections is by doing continuous surveillance of antibiotic resistance profiles of local *S. aureus* isolates to formulate antibiotic policies and effective infection control practices.

Key words: strain, resistance, staphylococcus aureus, clindamycin

Vol. 5 (1): 129- 134 (2015)

THE COMMON ALLERGENS OF CONTACT DERMATITIS

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ABSTRACT

Allergic contact dermatitis is a common inflammatory skin disease, caused by exposure to specific allergens. Patch testing is a unique tool for diagnosing allergic contact dermatitis. The aim to identify the most common allergens found on the patch testing that was applied to the patients that have been suspected with allergic contact dermatitis diagnosed in our policlinic at Elbasani district. A total of 204 consecutive patients presenting with signs/symptoms of suspected allergic contact dermatitis were patch tested January 2010 to December 2012. The patients were tested with the 23-allergen European standard series. Patch-tests were performed and read in accordance with the guidelines of the ICDRG. A total of 157 (77%) 95%CI 70.7 – 82.2 patients showed positivity to one or more allergens. 64 (40.8%) of these hundred and fifty seven patients were male whereas 59.2% were females with a significant difference between them, $p < 0.01$. The most frequently reaction detected allergens were: nickel sulphate 50 (13.6%), potassium dichromate 21 (11.5%) cobalt chloride 32 (9.5%), fragrance mix 30 (7.6%), and neomycin sulfate 20 (6.4.0%). Nickel sulfate (27.4%) was the most common allergen in women, followed by cobalt chloride (14.6%) and fragrance mix (12.2%). As in other studies nickel sulfate was found to be the most common contact allergen, mostly affecting women.

Key words: allergens, dermatitis, nickel, patch test, occupational

Vol. 5 (1): 135- 138 (2015)

THE PATTERN OF PAEDIATRIC EMERGENCY VISITS FOR INFECTIOUS DISEASES

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ABSTRACT

The paediatric emergency room is an important part of hospital services. High emergency room utilization is a considerable concern for the increasing cost of health care. This is a retrospective study including only patients with infectious diagnosis presenting at the emergency room of the pediatric hospital at University Hospital Centre "Mother Teresa" during the year 2013. During the year 2013 a total of 1763 patients visited the emergency room for various infectious diseases. The mean age of children was 3.7 years which is the pre-school age. The category "Infection of respiratory system" were found more frequent in 637(36.1%) of total cases, with Bronchopneumonia (49.7%) and Bronchiolitis (33.1%) being more frequent illnesses of this category. The second category was "Viral infection" in 553 (31.4%) patients. Acute Gastroenteritis ranked third in 240 (13.6%) of cases followed by sepsis (9.1%), urinary tract infections (5.4%) of cases, visceral leishmaniasis (4.3%). 29% of visits were not in emergency category. There is a need to introduce triage to reduce the burden on emergency facilities for trivial complaints, and rationalize the availability of primary care. Non severe cases such as upper respiratory tract infections, mild gastroenteritis, and other infections could be handled at a primary care family physician.

Key words: emergency room, infectious diseases, children

COMMON CARP (*CYPRINUS CARPIO* L.) PRODUCTION IN CYPRINID FISH BREEDING FACILITIES IN PELAGONIA (BITOLA, MACEDONIA)

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ABSTRACT

The most common fish that are grown in cyprinid fish breeding facilities is common carp (*Cyprinus carpio* L.). The aim of this study was to determine the production of common carp (*Cyprinus carpio* L.) in cyprinid fish breeding facilities in Pelagonia (Bitola, Macedonia) in a period of three years. Except main goal, other purposes are inevitably associated with carp production and these are determination of: food consumption for carp production in a period of three years for each fish pond separately; facilities for carp production that were used in each fish pond separately; fish stock material (one-year and two-year old carp) that was used for carp production in a period of three years for each fish pond separately. In order to investigate it, analysis of carp production were made in the two largest fish breeding facilities in Pelagonia (Bitola, Macedonia): fish pond Bel Kamen - Žabeni and fish pond Bukri. Investigations were carried out in a period of three years, from 2011 to 2013. Carp production in fish pond Bel Kamen - Žabeni is almost doubled (156.720 kg) compared with the fish pond Bukri (82.619 kg), which is normal, because of different ambient conditions and difference in capacity (ha) of these two ponds which is almost double. In fish pond Bel Kamen – Žabeni, food consumption (771.050 kg) is almost double compared to food consumed in fish pond Bukri (347.620 kg), during the examined period of three years.

Key words: common carp (*Cyprinus carpio* L.), cyprinid fish pond

EPIDEMIOLOGY OF SOFT TISSUE TRAUMAS IN DISTRICT OF SHKODRA

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ABSTRACT

The soft tissue injuries of the lower extremities, are a very frequent injury in the everyday practise of sport medicine. These injuries may be found in many types of sport, but are more frequently associated with football. Injuries due to different causes are part of our everyday's routine. More commonly they occur due to automobilistic accidents, due to the work in agriculture, in industry, in construction, at home and even during mild to moderate sport activities. The aim of the study is to give an epidemiological overview of muscular sports trauma, in Shkodra district. This is a prospective study including patients with muscular injuries in different sports activities as well as during various accidents presented for imaging examinations in Shkodra Regional Hospital and Medical Clinic "Medicare" in Shkodra during 2010-2013. A tip file, which included patients' socio-demographic characteristics and clinical data was used for this study. 252 patients underwent examination. 94 (87.8%) were male and 13 (14.12%) females. The mean age was 36.9 ± 14.2 years (range 16-70). Of 252 patients, 96 (38%) had femoral injuries, 42 (16.7%) tibial, 31 (12.3%) injuries of the knee, 28 (11.1%) of the feet, 29 (11.5%) of the tendon of Achilles and 26 (10.3 %) had various injuries. Ultrasound signs in 156 (61.9%) cases presented with muscular fibers rupture, in 29 (11.5%) cases with tendon of Achilles injuries, while 67 (26.6%) cases presented the image of the bell.

Key words: muscle trauma, sports, injury, muscles