

ABSTRACT&REFERENCES

DOI: 10.15587/2519-4798.2017.99219

EFFECT OF MILK AND DAIRY PRODUCTS CONSUMPTION ON ACNE RISK AND SEVERITY IN YOUNG ADULT PATIENTS WITH ACNE VULGARIS ATTENDING THE DERMATOLOGY CLINICS AT KING FAHD HOSPITAL OF THE UNIVERSITY IN ALKHOBAR, SAUDI ARABIA

p. 4-8

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Introduction: *Acne vulgaris is a common cutaneous disorder. Many studies were done exploring the relationship between acne and diet with controversial results.*

Aim: *To assess the relation between dairy products consumption and acne risk and severity in young adult patients with acne vulgaris.*

Method: *This is a case control study using interview questionnaire conducted at the dermatology clinics at King Fahd Hospital of the University in Alkhobar, Saudi Arabia for a period 6 months. A total of 100 participants. Their ages varied 13–25 years. Participants were interviewed with questionnaires related to specific dairy food consumption. Acne severity was assessed by a dermatologist on duty using the Global acne grading system.*

Results: *There was no statistically significant difference ($P < 0.05$) found between the severity of acne with all the dietary factors except for consumption of milk ($P = 0.033$).*

Discussion and conclusion: *This study suggests that dairy products consumption does not influence or aggravate acne development in our young adults who were Saudis except for milk. We recommend conducting a randomized controlled trial to establish a causal relationship between frequent milk consumption and acne severity*

Keywords: *acne, milk, dairy products, comedogenesis, lipogenesis, sebaceous glands, inflammation, androgens, diet, nutrition*

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DOI: 10.15587/2519-4798.2017.100481

A COMPARATIVE ANALYSIS OF THE ACCUMULATION OF LEAD ACETATE IN BLOOD PLASMA, URINE AND HOMOGENATES OF HARD DENTAL TISSUES IN RATS

p. 9-12

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Aim. A comparative analysis of lead acetate concentration in blood plasma, urine and homogenates of hard dental tissues in rats for determination of the informative value of indica-

tors to estimate condition of lead acetate accumulation and metabolism depending on its accumulation degree.

Methods. The studies were carried out using 36 white mongrel male rats weighing 200–250 g. The animals were divided into two groups: the first (12 rats) – the control group, receiving ordinary water, the second group (24 rats) – the animals received lead acetate in a dose of 10 mg/kg of the animal weight of in the form of a one-percent intragastric solution with drinking water daily during one, two and three months.

Results. In result of research devoted to determination of lead acetate in blood plasma, urine and homogenates of hard dental tissues in rats, its increase depending on the poisoning period duration was found, and the highest indices were marked after 3 months period.

Conclusion. A comparative analysis of the accumulation of lead acetate in blood plasma, urine and homogenates of hard dental tissues in rats using atomic absorption spectrometry was carried out. In result of the study we can conclude about the degree of lead acetate accumulation in homogenates of hard dental tissues and about the presence of subchronic lead intoxication (blood plasma, urine)

Keywords: lead, atomic absorption spectrometer, plasma, urine, the homogenate hard dental tissue

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DOI: 10.15587/2519-4798.2017.99566

DIAGNOSTIC VALUE OF GALECTIN-3 LEVEL IN PATIENTS WITH HYPERTROPHIC CARDIOMYOPATHY

p. 13-18

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The **aim** of the present research was to study galectin-3 level in patients with hypertrophic cardiomyopathy depending on the disease clinical course, the presence of complications and comorbidity for determination of possibilities of its use as hypertrophic cardiomyopathy biomarker.

Methods. Galectin-3 level was studied in 90 patients with hypertrophic cardiomyopathy with the analysis depending on the disease clinical course, the presence of complications and comorbidity, as well as in 20 patients with cardiac hypertrophy caused by hypertension as the control group.

Results. Galectin-3 level in patients with hypertrophic cardiomyopathy is rather variable and reliably depends on the patients' age, heart failure severity, and the presence of concomitant third degree hypertension. Besides, there is a tendency to increase galectin-3 level in the presence of atrial fibrillation and after previous myocardial infarction. The

correlation between galectin-3 level and hypertrophic cardiomyopathy clinical course peculiarities, the presence of complications and comorbidity points to the limited ability to isolated use of this biomarker for hypertrophic cardiomyopathy diagnostics, but it can be useful for determination of the disease severity and its prognosis.

Conclusion. Galectin-3 level variability indicates the given biomarker's low diagnostic importance in patients with hypertrophic cardiomyopathy, but its dependence on the disease severity indexes shows galectin-3 predictive value in the mentioned group of patients

Keywords: galectin-3, diagnostic value, hypertrophic cardiomyopathy, clinical course, complications, comorbidity

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DOI: 10.15587/2519-4798.2017.100177

INFLUENCE OF HYPOLIPIDEMIC AGENTS ON THE LEVEL OF STEATOGENIC AND FIBROGENIC MODULATORS IN RATS WITH NON-ALCOHOLIC FATTY LIVER DISEASE ASSOCIATED WITH HYPERHOMOCYSTEINEMIA

p. 18-24

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The **aim** was to determine the influence of Simvastatin and PUFA ω -3 remedy on the level of pro-fibrogenic neurotransmitters (Homocysteine, TNF α) and the level of neurotransmit-

ters that determine anti-fibrous and liver regeneration potential (H_2S and IGF-1) under experimental NAFLD associated with HHC.

Materials and methods. The study was carried out using 100 white laboratory male rats divided into 7 experimental and 3 control groups. NAFLD associated with HHC was modeled in 7 groups of rats by applying high fat diet with simultaneous administration of Homocysteine thiolactone (100 mg/kg/intragastrically) for 60 days. From the 61st day and till the end of the experiment, 6 groups of rats with NAFLD + HHC had a standard diet. On this background, the animals of 4 groups were treated by lipid-lowering drugs – Simvastatin or ω -3 PUFAs remedy.

The levels of Homocysteine, TNF- α and IGF-1 in bloodserum, as well as the content of triglycerides, cholesterol, phospholipids, hydroxyproline and H_2S in rat liver were determined.

Results. The use of Simvastatin did not cause statistically significant changes in the levels of Homocysteine, TNF α in blood serum and H_2S content in the liver; but it led to IGF-1 worsening deficits in blood serum. At the same time, the use of PUFA ω -3 resulted in a significant reduction in the levels of Homocysteine, TNF α and increase in the levels of IGF-1 in serum and H_2S in rat liver. Anti-steatosis and anti-fibrous effects of ω -3 PUFA remedy were significantly higher comparing to Simvastatin.

Conclusion. Therefore, PUFA ω -3 drug significantly exceeds Simvastatin by hypohomocystinemic effect, more effectively reduces TNF α in blood serum and increases the H_2S content in liver, and stimulates an IGF-1 level increase in blood serum, while Simvastatin enhances its deficit

Keywords: Homocysteine, Hydrogen sulfide, insulin-like growth factor-1, steatosis, fibrosis, Simvastatin, omega-3, polyunsaturated fatty acids

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DOI: 10.15587/2519-4798.2017.99291

THE EFFECT OF EARLY MULTIMODAL REHABILITATION IN ABDOMINAL HYSTERECTOMY ON POSTOPERATIVE PERIOD

p. 24-28

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The *aim* of research was to estimate the influence of the use of early multimodal rehabilitation concept on postoperative period after scheduled abdominal hysterectomy.

Methods. 41 female patients, divided in two groups, were involved in the study. In the main group (19 patients) early multimodal rehabilitation protocol was used. Preoperative period: informing and teaching the patient; bowel preparation rejection; starvation rejection; the use of dietary carbohydrate mixes; thromboembolic complications prevention.

Intraoperative period: antibiotic prophylaxis; regional (epidural analgesia); short acting anesthetics; postoperative infusion therapy limitation; rejection of nasogastric intubation; normothermia; the routine use of drains rejection.

Postoperative period: effective pain relief; non opioid analgesics; nausea and vomiting prevention; early mobilization (after epidural block regression); early enteral nutrition.

In the control group, hysterectomy via laparotomy was performed using combined anesthesia (Sevoflurane + epidural analgesia + Fentanyl) with artificial lung ventilation. In the control group, general anesthesia was implemented using Sevoflurane, system analgesia – using Fentanyl (5 μ g/kg/hour). In the main group, anesthesia was implemented using Fentanyl (3–5 μ g/kg/hour) and epidural 0.5 % solution of Bupivacaine (6–8 ml). During postoperative period, in the main group prolonged epidural analgesia by small boluses of 0.25 % Bupivacaine solution (4 ml/hour) in combination with system administration of Dexketoprofen (100–150 mg/day) + Ketorolac (60 mg/day) + Paracetamol (2000 mg/day) was used. In the control group, postoperative analgesia included Paracetamol 3000 mg/day, Dexketoprofen 150–200 mg/day, Tramadol 50–100 mg/day.

Besides, pain level (VAS) within 12 and 24 hours after operation at rest and during coughing was estimated.

Results. The groups were identical by anamnestic (start of menstruation, number of pregnancies, births, abortions and pregnancy losses), anthropometric and demographic characteristics, as well as by duration of the surgeries, blood loss volume and preoperative parameters of mean arterial pressure and heart rate.

Pain level when coughing in the control group was higher than the one in the main group, statistical difference was determined in 12 and 24 hours, and it was higher than 30 mm, which required more analgesics. An adequate postoperative analgesia allows starting early activation of the patients in the control group. Postoperative bed-day in patients of the main group (FTS) was considerably shorter than in patients of the control group without FTS.

Conclusion. The proposed complex of measures is one of the ways for the fast track gynecological surgery operations concept implementation. This approach allows early discharge, which undoubtedly has direct economic effect and increases prestige of doctor and medical institution

Keywords: multimodal strategy, laparotomy, hysterectomy, anesthesia, epidural analgesia, Sevoflurane, peristalsis, activation

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DOI: 10.15587/2519-4798.2017.100113

HEALTH CONDITION ANALYSIS IN ADULTS WITH SURGICALLY CORRECTED CONGENITAL HEART DEFECT (ON THE EXAMPLE OF ATRIOVENTRICULAR CANAL DEFECT)

p. 28-32

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The estimation of the surgery was carried out, the most common forms of the disorder, which occur after surgical treatment in adult patients with atrioventricular communication, were determined. The aim of research was to investigate the main clinical and echocardiography changes occurred in adults after surgery directed to atrioventricular communication for the further dispensary system improvement.

Methods. Retrospective analysis of the spread of congenital heart disease – atrioventricular communication in 12 adults aged 18–28 years treated in Municipal Institution Lviv Regional Children's Hospital during 2009–2016. Statistical methods included relative and average values calculation, their average errors, the assessment of the probability of

difference between the obtained results in the comparable groups using Student's t test.

Results. It was found that both men and women after atrioventricular communication surgical treatment in childhood had poor quality of life due to physical and emotional condition worsening. Significant part of the patients still suffered from mitral and tricuspid insufficiency, heart failure of 1–2 degree, pulmonary artery regurgitation of 1 degree, and chamber hypertrophy.

Conclusion. The mentioned group of patients needs lifelong medical care by specialists (cardiologists, surgeons, psychologists, physitians and other) for timely qualified care, prescriptions determination, and reoperations within optimal terms

Keywords: congenital heart disease, atrioventricular communication, mitral insufficiency, ventricular septal defect

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DOI: 10.15587/2519-4798.2017.100135

THE ANALYSIS OF ADHESIVE-DYSFUNCTIONAL ENDOTHELY AT RESISTANT ARTERIAL HYPERTENSION

p. 33-35

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Aim: To examine the antihypertensive activity of Telmisartan and Bisoprolol at resistant hypertension. To evaluate the features of resistant hypertension and endothelial vasomotor and adhesive dysfunction.

Methods: The level of adhesion molecules s-ICAM-1, L-selectin and matrix metalloproteinase-9 was determined by ELISA with regard to vasoactive function of the brachial artery, which is determined through the flow-dependent vascular dilatation sample. Determination of Nitrogen oxide was conducted on data metabolites of total Nitrogen (NOx) by determination of Nitrite ion after colorimetric reaction with Griess reagent using SF-46 spectrometer (Russia).

Results. The studies have shown that six-month treatment by Telmisartan and Bisoprolol in most patients (22 patients) was accompanied by target levels of blood pressure achievement, and was observed in 14 patients resistant to the treatment. The additional inclusion in complex treatment Aliskiren 150–300 mg per day was also accompanied by normalization of blood pressure.

Conclusion.

1. The function of endothelial adhesion and appearance of endothelial dysfunction occur prior to hypertension clinical and morphological signs.

2. Induced hypertension increase of sICAM-1 and L-selectin and matrix metalloproteinase-9 is a marker of hypertension severity and the treatment efficiency.

3. Telmisartan and Bisoprolol significantly reduce the adhesive endothelial dysfunction and contribute to the achievement of target blood pressure levels

Keywords: resistant hypertension, adhesive endothelial dysfunction, Bisoprolol, Telmisartan, Aliskiren

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DOI: 10.15587/2519-4798.2017.100270

EFFICIENCY OF ANTIFUNGAL SUBLINGUAL ALLERGEN-SPECIFIC IMMUNOTHERAPY IN PATIENTS UNDER AND OVER 50 YEARS OLD WITH MILD PERSISTENT AND MODERATE BRONCHIAL ASTHMA

p. 36-41

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In Ukraine, the relative contraindication for allergen-specific immunotherapy (ASIT) in patients with bronchial asthma (BA) is age 50 years and older, which is substantiated by its efficiency reduce with age. The use of antifungal sublingual ASIT and its efficiency in older patients remain poorly investigated.

Aim – research of antifungal sublingual allergen-specific immunotherapy (with mixed-allergens of household mold) in patients with mild and moderate bronchial asthma depending on the age (up to 50 years and older).

Methods. A prospective, open, controlled, parallel, single-center study with clinical-functional and allergological examination in 45 patients with asthma in the remission stage with positive skin tests to fungal mixed-allergens was carried out. The patients were divided into 2 groups depending on the age: 27 patients from 20 to 50 years inclusive (mean age 39.6 ± 1.1 years) were included in the 1st group (the control group); 18 patients from 51 to 71 years old (mean age 57.1 ± 1.4 years) comprised the 2nd group (primary). The treatment was performed using sublingual method with fungal mixed-allergens (household mold mixture) (*Aspergillus fumigatus*, *Aspergillus niger*, *Penicillium sp.*, *Mucor sp.*, *Rhizopus sp.*) during the year.

Results. The patients with mild persistent and moderate asthma over 50 years old initially differed from the younger patients by slightly worse functional respiratory rates (FEV1), and a lower percentage of patients with mild and uncontrolled asthma. The sublingual ASIT was effective regardless of age, including the patients over 50 years old. The results were confirmed by a positive dynamics of respiratory function indicators, decrease in skin sensitivity to fungal mixed-allergens, asthma transformation into controlled form in 83–89 % of the patients. In the patients older than 50 years, the respiratory function dynamics was less pronounced. None of the patients had severe adverse effects. Mild adverse reactions occurred regardless of age in 96–98 % of the patients with asthma, most often in the form of cough, runny nose, sneezing, sore throat, and skin itching.

Conclusion. The sublingual ASIT with antifungal mixed-allergens in the interior premises in adult patients with mild persistent and moderate bronchial asthma is effective regardless of age, including the patients aged over 50, which was confirmed by improved respiration function, decreased skin sensitivity to fungal allergens, and improved life quality after 12 months therapy. Mild adverse effects happened regardless of age in 96–98 % of the patients with asthma

Keywords: bronchial asthma, elderly patients, fungal allergy, the sublingual allergen-specific immunotherapy

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DOI: 10.15587/2519-4798.2017.100358

THE ANALYSIS OF BLOOD COAGULATION CHANGES IN PATIENTS WITH HYPERTENSION IN COMBINATION WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE VARYING DEGREES OF SEVERITY

p. 41-45

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Aim of research was to determine the influence of COPD severity on the plasma hemostasis condition in patients with HT combined with COPD.

Materials and methods. 79 patients were examined: 15 almost healthy (control) and 64 patients with stage II HT with concomitant COPD. Depending on the COPD severity, the patients were divided into 3 groups: group A – 11 patients with HT and COPD of the I severity degree; Group B – 28 patients with HT and COPD of the II severity degree; Group B – 25 patients HT and COPD of the III severity degree. Special laboratory tests: coagulation indicators – activated partial thromboplastin time, prothrombin time, thrombin time, fibrinogen, soluble fibrin monomer complexes, ancistron test, Lebetox test, and echitox test were carried out.

Results: in result of the study it was found that comorbid HT and COPD course is characterized by increased activity of hemostasis system coagulation level, which intensity is associated with bronchial obstruction severity. In particular, COPD of the III severity degree hyperfibrinogenemia, as well as soluble fibrin monomer complexes significant increase were observed in all subgroups of the patients with HT and COPD, accompanied by activation of external pathway of coagulation and combined with accelerated processes of prothrombinase-, trombino- and fibrin formation according to specific snake venoms tests.

Conclusion. Comorbid HT and COPD course is characterized by the activation of hemostasis system coagulation level, which intensity is associated with bronchial obstruction severity. Hyperfibrinogenemia and a significant increase of the SFMC content, observed in all subgroups of the patients with HT and COPD, at COPD of the III severity degree are accompanied by activation of external pathway of coagulation and combined with accelerated processes of prothrombinase-, trombino- and fibrin formation according to specific snake venoms tests. The patients with HT combined with COPD of the III severity degree need careful laboratory monitoring to solve the problem of the additional antithrombotic correction necessity

Keywords: hypertension, chronic obstructive pulmonary disease, coagulation hemostasis, snake venom

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DOI: 10.15587/2519-4798.2017.100553

SOCIAL FUNCTIONING VIOLATION IN PATIENTS WITH PARANOID SCHIZOPHRENIA AND CONCOMITANT SOMATIC AND NEUROLOGIC PATHOLOGY

p. 46-50

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The aim was to determine the features of social functioning violation in patients with paranoid schizophrenia and concomitant somatic and neurologic disorders under the influence of neuroleptic treatment and to estimate psychopharmacotherapy efficiency. It is known that patients with schizophrenia often suffer from concomitant somatic pathology. Schizophrenia course, negative symptoms and cognitive disorders may prevent timely treatment and mental health care for patients with paranoid schizophrenia and concomitant somatic and neurologic disorders.

Methods. According to the specially designed criteria, the main group with paranoid schizophrenia diagnosis (F 20,0) having somatic and neurologic disorders was determined according to the ICD-10 criteria.

Results. On the basis of the obtained results analysis, it should be mentioned, that patients with paranoid schizophrenia and concomitant somatic and neurologic pathology will probably have poor physical and mental health. Thus, stressful events in life of patients with paranoid schizophrenia worsens somatic health and reduces adaptive potential, which in turn affects all areas of personal communication and general quality of life.

Conclusion. The features of the concomitant somatic and neurologic pathology influence on social activity and quality of life of patients with paranoid schizophrenia before and after treatment

Keywords: paranoid schizophrenia, stress resistance, quality of life level dynamics, somatic and neurological pathology, pharmacotherapy

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