MMP-9, low TIMP-1 levels were found in both groups (p>0.05). Amount of vessels according to CD31 staining was 43 (19; 62) in group 1 and 58 (30; 95) in group 2. In follow-up period wound size and depth decreased, $tcpO_2$ increased more significantly in group1 (p<0.05). Histological exam showed significant reduction of edema, formation of ECM, high quality of granulation tissue, reduction of inflammation in group1 compared to group 2(p <0.05). Amount of blood vessels increased more than twice, but there was no significant difference between 2 groups (p=0.33). TIMP-1 expression slightly increased and MMP-9 levels decreased more significant in group 1 (p=0.04). The majority patients in group 2 had low quality of granulation tissue and excessive exudation after treatment, which required surgical debridement. **Conclusion.** Histological and immunohistochemical exams confirm more clinical effect of NPWT.

KEYWORDS: diabetic foot ulcers, local negative pressure wound therapy, diabetes mellitus.

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REIFENSTEIN SYNDROME — NEEDS AND POSSIBILITIES OF IMPROVING THE OUTCOMES

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Introduction. Reifenstein syndrome or Partial Androgen Insensitivity Syndrome PAIS represents a rare form of male hypogonadism, caused by a mutation of gene encoding the androgen receptor, resulting in partial resistance to androgens. In consequence a disorder of sex development appears, in which 46,XY individuals do not virilize normally despite the presence of bilateral testes and serum testosterone concentrations within or above the normal male range. Men have varying degrees of ambiguous external genitalia, hypogonadism, and infertility. As it is primarily rare disease, usually it is only mentioned in professional guidelines, no medical consensus has been reached about the treatment of these patients. We present a case of Reifenstein syndrome treated with high doses of testosterone for 12 months, resulting in improved masculinization and even obtaining sperm by testicular extraction for ICSI. **Case presentation.** A 33-year-old male presented with complaints of infertility and reduced libido. His personal history is remarkable for hypospadias (several surgical corrections have been done, the last one — at the age of 16) and gynecomastia (at the age of 13—14, was solved by surgery). His family history is noticeable — brother and cousin have had hypospadias and gynecomastia. Physical exam revealed high-pitched voice, sparse pubic and axillary hear and absent facial hair, micropenis, testes located in the scrotum, but small in size. Lab test results in December 2015: karyotype 46XY; AZF deletions negative, azoospermia in semen analysis; double increased total testosterone with increased SHBG; LH-16 (with upper normal level of 8.7); FSH on the upper normal level. The diagnosis of Reifenstein syndrome was supposed. Based on some professional articles we decided to try high doses of androgens. In March 2016 the administration of testosterone undecanoate 1000mg/4 weeks (X3 usual doses) was initiated. After 12 months of treatment patient remarked refined libido, development of facial hair, improved quality of life. Lab test revealed normalization of LH level. As patient extremely desires descendants, the mutual agreement for TESA was obtained. During the procedure, on 7th of March, we faced 2 unexpected things: 1) presence of blind vagina (images are available), 2) microsurgical testicular sperm extraction resulted in obtaining mobile spermatozoa, which will be used for intra-cytoplasmic sperm injection. **Conclusion.** Administration of androgens in more masculinized patients with PAIS can improve patient's condition and ameliorate prognosis; this approach should be systematically assessed, to describe more extensively dosage, administration, benefits, as well as adverse effects and recommended follow-up.

KEYWORDS: reifenstein syndrome, hypogonadism, androgens.

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EATING BEHAVIOR IN CONNECTION WITH BODY MASS INDEX IN WOMEN

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The European Medical Agency defines obesity as a chronic disease associated with genetic, metabolic, behavioral factors, as well as environmental factors, resulting in increased morbidity and mortality. The etiological factor underlying primary obesity are an absolute or relative prevalence of energy processes (overeating) over processes of energy expenditure. Overeating is usually a result of eating disorders. **Objective.** To explore the features of eating disorders among groups of women according to body mass index. **Material and methods**. The study included 139 women aged 18—61. All participants were divided into three groups according to body mass index (BMI): the first group included women with normal weight (n=21), the 2nd group — women with overweight (n=34), the third one — obese women (n=84). Eating disorders (ED) were evaluated using the Dutch eating DEBQ questionnaire. **Results.** ED were found in all groups. The frequency of different ED was 47% in the first group, in the second group — 55.9%, in the third — 76.2% of cases. The emotiogenic eating behavior was significantly higher in obese women (1.5±0.9 points) compare to normal weight women (1.1±0.7 points; p=0.04) and overweight women (1.1±0.6 points; p=0.02), respectively. Compulsive ED was more frequent among women in the 3rd group (2.25±1.0 points), compared to women in the 1st (1.7±0.7 points; p=0.02) and 2nd groups

(1.8±0.8, points, p=0.08). Obese women also showed a tendency to increase ED of the external type (2.6±0.8 points) compared to groups 1 (2.3±0.6 points, p=0.075) and 2 (2.3±0.6 points; p=0.070). Restrained food intake was negatively correlated with weight, the ED was more significant in the 1 group (2.3±1.0 points) relative to the 3 group (1.9±0.8 points; p=0.09). A noteworthy finding was the higher amount of combined types of ED with higher BMI. Combined types of ED were detected among obese women (50%). The most frequent combinations were emotional-compulsive and external-compulsive types of ED. **Conclusion.** Certain types of ED can be detected independently of BMI levels, but obese women suffer of ED more frequently than women with normal weight and overweight women. ED occur in isolated and combined variants, the number of combined variants increases with rising BMI. Women with normal weight and overweight women demonstrated a more frequent accurance of restrained type of ED probably due to concern about their outward appearance and higher care for quantity and quality of food intake.

KEYWORDS: eating disorders, body mass index, overweight, obesity.

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SOMETHING NEW ON THE REAL HISTORY OF KETOACIDOSIS

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Aim. To estimate the frequency of different risk factors appearance for diabetic ketoacidosis developing in a real clinical practice in Rostov-on-Don. **Material and methods.** Patients with a diagnosis of ketoacedosis were enrolled in the reserach. A survey to determine the type of nutrition, alcohol intake and other risk factors was conducted. All patients were divided into two groups according to their age. The 1st group — 12 patients younger than 65 y.o. — Nutritional Risk Screening survey, the 2nd group — 3 patients (65—90 y.o) – Mini Nutritional Assessment survey. «Alcoholic agnosia» survey for the identification of alcohol addiction. **Results.** 15 patients (11 men and 4 women), average age — 36±0,93 y.o. According to type of diabetes: 11 patients of type 1 diabetes mellitus, 4 patients wth type 2 diabetes mellitus. Out of 15 patients 10 (66,66%) had nutrition problems. 5 (33,33%) patients were closed to the nutrition risk questions. According to «Alcohol agnosia» survey: 5 (33,33%) patients had alcohol abuse problems, 3 (60%) of them were aware of this problem, 2 (40%) were indifferent to it. 10 (66,66%) patients did not have alcohol addiction problems. The risk factors of developing ketozcedosis: inadequate insulin therapy — 7 (46,66%) patients, 5 (71,42%) of them with alcohol abuse problems, 2 (13,33%) of them with a sober life style. Took drugs 2 (13,33%) patients, but also experienced alcohol abuse problems. Exacerbation of concomitant diseases — 6 (40%) patients, 4 (66,66%) of them had alcohol abuse problems. **Conclusion.** The most significant risk factors for developing ketoacedosis were inadequate insulin therapy, exacerbation of concomitant diseases (40%), abuse of alcohol (33,33%), drugs intake (13,33%). 66,66% had nutritional problems but this state is rather the result than the cause of developing ketoacedosis.

KEYWORDS: developing ketoacedosis, risk factors, inadequate insuling therapy, alcohol abuse, concomitant diseases.

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ALPHA-LIPOIC ACID CYTOPROTECTIVE THERAPY IN TYPE 2 DIABETES PATIENTS

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Objective. To study the alpha-lipoic acid (ALA) efficacy in oxidative stress (OS) modification in type 2 diabetes mellitus (T2DM) patients with diabetic polyneuropathy (DPN). **Material and methods.** 61 patients were included in the research: 29 (48%) female, 32 (52%) male, average age — 50.1±0.5 years, mean T2DM duration — 5.9±0.4 years, DPN — 4.9±0.5 years, AH — 6.7±0.3 years. Neuropathic status (NS) indices: Neuropathy Symptoms Score (NSS), Total Symptoms Score (TSS), Neuropathy Disability Score (NDS), Douleur Neuropathique 4 (DN4); oxidative stress parameters: total oxidative capacity (TOC), total antioxidant capacity (TAC), oxidized LDL antibody level (ab-oxLDL); carbohydrate metabolism state: pre-, post-prandial glycemia, HbA_{1c} were defined in patients. Depending on therapy patients were divided into 2 groups: control (n=30) and basic (n=31) with 50 ml (600 mg) ALA ready for use solution for 14 days was prescribed; then (600 mg) oral ALA 1 tablet once a day for 12 weeks was prescribed. Statistical analysis was carried out with Excel 2013 («Microsoft») and Statistica 8.0 («StatSoft, Inc.») software, investigated parameters were presented in M±m, Mann—Whitney test (U) was used for group comparison and significance critical level (p) was accepted at 0.05 or lower. **Results.** ALA therapy in the basic group patients contributed to the reduction of the severity of DPN clinical and laboratory manifestations in comparison to the same parameters in the control group. OS parameters modifications were observed: TOC value decreased by 13.9%, ab-oxLDL — by 12.9%, OSI — by 32.4% whereas TAC increased ones by 27.3% (U, $p<0.05$). In the basic group of hospital patient ALA treatment led to reduced glycemia at 8, 11 and 14 o'clock and HbA_{1c} level in 12.0, 9.1, 11.8 and 8.2% accordingly compared to the same ones in control group patients (U, $p<0.05$). NS indices were reduced significantly: NSS — 16.1%, TSS — 17.6%, NDS