

— 12.4%, DN4 — 22.9% (U, $p < 0.05$). **Conclusion.** Alpha-lipoic acid cytoprotective therapy contributes to significant improvements of neuropathic status indices, oxidative stress parameters, and reduces glycemia and HbA_{1c} levels.

KEYWORDS: type 2 diabetes mellitus, alpha-lipoic acid, oxidative stress, glycemia levels, HbA_{1c}.

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A CASE OF CYCLIC ECTOPIC CUSHING'S SYNDROME DUE TO A NEUROENDOCRINE TUMOR OF THE APPENDIX

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Cyclic Cushing's syndrome (CS) is a rare disorder, characterized by repeat episodes of cortisol excess interspersed by periods of normal cortisol secretion. The so-called cycles of hypercortisolism can occur regularly or irregularly with intercycle phases ranging in duration from days to years. A 24-year-old woman with fluctuating symptoms of hypercortisolism: weight gain, "moon" face, large purple striae on the trunk and breasts, hair loss on the head, acne, hypokalemia, diabetes. Disease duration was 6 years. Laboratory investigations showed a cyclic ectopic ACTH syndrome. Levels of adrenocorticotrophic hormone fluctuated in the range from 34,0 to 299,0 pg/ml (7,0—66,0), and serum cortisol 457,0—1590,0 nmol/l (123,0—626,0). According to the results of hormonal tests, hypercortisolism cycle length varied from 2 to 11 months, with intervals of normal cortisol secretion from 2 weeks to 3 years.

CT scan revealed a mass in the ileocaecal area (2,5×2,5×4,4 cm). Right hemicolectomy was performed. Histological examination showed a neuroendocrine tumor of the appendix, G2. Our patient remained in clinical remission during a 6-years follow-up.

KEYWORDS: cyclic Cushing's syndrome, appendix, neuroendocrine tumor, ectopic ACTH syndrome.

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BONE MINERAL DENSITY — ONLY BODY MASS MATTERS IN HAVING STRONG BONES?

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There is a known association of body mass index and bone mineral density, but relative contribution of fat and lean tissue is not so well analysed yet. We aimed to investigate the effect of selected anthropometric parameters including BMI, fat content and lean body mass on BMD in postmenopausal women. Deferred to routine bone MD screening because risk of osteoporosis in menopausal

women or additional risk factors. We could say, our group of 110 women aged 43.4—83.2 years/mean 63.7 y./ is a good representative of the average population of postmenopausal women. **Material and methods.** We included a randomly chosen group of postmenopausal women, deferred to routine bone MD screening because risk of osteoporosis in menopausal women or additional risk factors. We could say, our group of 110 women aged 43.4—83.2 years/mean 63.7 y./ is a good representative of the average population of postmenopausal women in our region of Subotica, northern Serbia. For measuring BMD, Dual energy X-ray absorptiometry was performed, with Lunar type model, which gives simultaneous data of body mass, and content of lean and fat body mass. As first step multivariate ANOVA was used to find correlations between BMI, fat and lean body mass and BMD. Afterwards, Mann Whitney test was used to differentiate groups and localisations correlations. **Results.** The effect of BMI on BMD in L1—L4, femoral neck and hip is statistically highly significant with risk of mistake 0.5, 3.3 and 0.1% consecutively. T score reaches highest values in pre-obese group of patients / BMI 25—29.9 kg/m². The percentage of fat and lean body mass has no significant effect on having osteoporosis or osteopenia in this region. **Conclusion.** BMI and BMD are in tight positive correlation, regardless of the body composition — fat or muscle content. Seemingly, the most important is the mass our bones carry, which is a stimulus for osteoblast activity. We are planning further analyses to investigate eventual additional factors including age, physical activity, comorbidities, medications.

KEYWORDS: bone, postmenopausal, osteoporosis, mineral density.

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THE CASE OF TSH-PRODUCTION PITUITARY ADENOMA WITH LATE DIAGNOSIS

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A pituitary adenoma is frequent endocrine pathology. It more common in women. The first place of hormone-activity adenoma belongs to prolactinoma, the second place — somatotropinoma. The TSH-production adenoma is very rare type of hormone- pituitary neoplasias. In the report we will focus on the patient B., she is resident of a remote area of Primorsky Krai. For the first time she was hospitalized in Primorsky regional centre of diabetes and endocrinological diseases in January 2015 with referral diagnosis multinodular toxic goiter. **Of history.** The patient had three cases of hyperthyroidism (in 1983, 1988, 1995). Thyroid resection was carried out three times over the multinodular goiter with symptoms of hyperthyroidism. After the last resection appointed replacement therapy with thyroid medications (levothyrox-