Filipčić I1, Šimunović Filipčić I1, Grošić V1, Bakija I1, Šago D1, Benjak T1, Uglešić B1, Bajić Z2, Sartorius N6. Patterns of chronic physical multimorbidity in psychiatric and general population. J Psychosom Res. 2018;114:72-80.

OBJECTIVE: A growing body of evidence has demonstrated the high prevalence and complexity of chronic physical multimorbidity defined as ≥2 chronic physical illness in people with psychiatric disorders. The present study aimed to assess differences in the prevalence and patterns of self-reported chronic physical illness and multimorbidity in the general and psychiatric populations. METHODS: We performed a latent class analysis of 15 self-reported chronic physical illnesses on a sample of 1060 psychiatric patients and 837 participants from the general population. RESULTS: Self-reported chronic physical illness and multimorbidity were significantly more prevalent in the population of psychiatric patients than in the general population (P < .001). Psychiatric patients had 27% (CI95% 24% - 30%) higher age-standardized relative risk for chronic physical illness and a 31% (CI95% 28% - 34%) higher for multimorbidity (P < .001). The number of chronic physical illnesses combinations was 52% higher in the psychiatric than in general population (255 vs 161 combinations respectively; P < .001). We identified four distinct latent classes: “Relatively healthy”, “Musculoskeletal”, “Hypertension and obesity”, and “Complex multimorbidity” with no significant differences in the nature of multimorbidity latent classes patterns. The class “Relatively healthy” was significantly less (ARI = -25% (CI95% -30% -21%), and the class “Hypertension and obesity” was significantly more prevalent in the population of psychiatric patients (ARI = 20% (CI95% 17% - 23%). CONCLUSIONS: These findings indicate that mental disorders are associated with an increased risk of a wide range of chronic physical illnesses and multimorbidity. There is an urgent need for the development of the guidelines regarding the physical healthcare of all individuals with mental disorders with multimorbidity in focus.


Intracranial hypertension, which often follows a severe brain injury, is usually treated with intravenous (i.v.) application of hyperosmolar solutions. The mechanism of intracranial cerebrospinal fluid (CSF) pressure decrease after such a treatment is still unclear. The aim of this article was to try to explain the mechanism of CSF pressure reduction after i.v. hyperosmolar mannitol bolus in regard to the changes in CSF volume. Two types of experiments were done.
on anesthetized cats before and after hyperosmolar mannitol application: ventriculo-cisternal perfusion at different perfusion rates, simultaneously measuring the perfusate ouflow volume, and CSF pressure recording in the lateral ventricle before and during artificial CSF infusion. Mannitol application in the first group of cats significantly reduced collected perfusate volume during ventriculo-cisternal perfusion, and in the second group it prevented CSF pressure increase caused by artificial CSF infusion. Our results strongly suggest that the mechanism of hyperosmolar mannitol action after its i.v. application is based on osmotic fluid retrieval from interstitial and cerebrospinal compartments into the microvessels. This shift, without significant volume change inside the cranium, causes a predominant decrease of CSF volume in the spinal part of the system, which in turn leads to lowering of the CSF pressure. Spinal CSF volume decrease is enabled by the extensibility of the spinal dura, this way providing the possibility for CSF volume redistribution inside the CSF system, together with CSF pressure decrease. This mechanism of mannitol action is in accordance with the new hypothesis of CSF physiology.

Mustapic S1, Ziga S2, Matic V1, Bokun T1-3, Radic B1, Lucijanic M4, Marusic S3,5, Babic Z1, Grgurevic I1,3.

Ultrasound grade of liver steatosis is independently associated with the risk of metabolic syndrome. Can J Gastroenterol Hepatol. 2018;2018:8490242.

OBJECTIVE: Adult granulosa cell tumors (AGCTs) represent 2%-5% of all ovarian malignancies. The aim of this study was to analyze clinical and pathohistological parameters and their impact on recurrence, overall, and disease-free survival in FIGO stage I AGCT patients. METHODS: The tumor specimens analyzed in this retrospective study were obtained from a total of 36 patients with diagnosis of ovarian AGCT surgically treated at the Department of Gynecology, Rijeka University Hospital Centre, between 1994

Mustapic S1, Ziga S2, Matic V1, Bokun T1-3, Radic B1, Lucijanic M4, Marusic S3,5, Babic Z1, Grgurevic I1,3.
and 2012. Clinical, pathological, and follow-up data were collected. RESULTS: The mean age at diagnosis was 54.5 years with a range of 24-84. The majority of the patients, 30 (83%), were in FIGO stage IA, 3 (8%) in stage IC1, 1 (3%) in stage IC2, and 2 (6%) in stage IC3. During follow-up period (median 117.5 months, range 26-276), recurrence occurred in 4 patients (12%) with 2 deaths of the disease recorded. In univariate analysis, the 5-year survival rates were significantly shorter in patients with FIGO substage IC (p = 0.019), with positive LVSI (p = 0.022), with presence of necrosis (p = 0.040), and with hemorrhage (p = 0.017). In univariate analysis, the 5-year disease-free survival rates were significantly shorter in patients treated with fertility surgery (p = 0.004), with diffuse growth pattern (p = 0.012), with moderate and severe nuclear atypia (p = 0.032), and with presence of hemorrhage (p = 0.022). FIGO stage IC proved to be an independent predictor for recurrence (OR = 16.87, p = 0.015, and OR = 23.49, p = 0.023, resp.) and disease-free survival (p = 0.0002; HR 20.84, p = 0.02) at the uni- and multivariate analyses. CONCLUSIONS: FIGO stage IC is predictive of recurrence and disease-free survival in patients with early-stage AGCTs. LVSI, presence of necrosis and hemorrhage, diffuse growth pattern, and nuclear atypia in AGCTs seem to be associated with overall and disease-free survival, so these pathological features should be taken into consideration when managing patients with AGCT.


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The main goal of our study was to investigate the role of increased fibroblast growth factor 23 (FGF23) lev-
els on renal recovery and overall survival. We conducted a prospective case-control cohort study, which included 121 adult cases who developed AKI after major surgical procedures. The subjects were followed-up until the last enrolled patient survived 180 days or until the time of death. Higher FGF23 levels positively correlated with serum creatinine levels (P < 0.05). Significantly higher number of patients without diuresis and with FGF23 ≤ 709 RU/mL survived when compared to patients without diuresis and with FGF23 ≥ 709 RU/mL (P < 0.001). FGF23 levels >709 RU/mL were a good predictive tool for overall mortality in a 6-month period (P < 0.05). This is the first study to analyze the impact of FGF23 values on short-term renal recovery and survival of patients with AKI after major surgery. The FGF23 increase related to AKI especially in more severe stages and in patients without diuresis is an independent risk factor for mortality.

Tomic S1,2, Pekic V1,2, Popijac Z1, Pucic T1, Vinkovic MP1,2, Kuric TG1,2, Popovic Z1,2. Hyperhomocysteinemia influenced malnutrition in Parkinson’s disease patients. Neurol Sci. 2018;39(10):1691-1695.

INTRODUCTION: Parkinson’s disease (PD) is a neurodegenerative disease with many motor and non-motor symptoms. Hyperhomocysteinemia is reported in many PD patients. Homocysteine (Hcy) is reported to be a risk factor for some PD non-motor symptoms. AIM: The aim was to analyze Hcy level and its correlation with physical activity and motor and some non-motor symptoms (depression and cognition) in PD patients. PATIENTS AND METHODS: Patients were surveyed for physical activity and demographic data. Blood samples were obtained for Hcy, vitamin B12, and folic acid determination. The Mini Nutritional Assessment (MNA), Unified Parkinson’s Disease Rating Scale (UPDRS) parts III and IV, Hoehn and Yahr (H&Y) Scale, Beck Depression Inventory (BDI), and Mini Mental State Examination (MMSE) were used to assess nutritional status, disease stage, and motor and some non-motor symptoms (depression and cognition) of PD in study patients. RESULTS: We analyzed 34 PD patients. Elevated Hcy level was found in 70.6% of these patients. Patients reporting regular exercise had lower Hcy level (p<0.025).