murugan et al., J. Am. Chem. Soc. (2013), 135 (4), S. 5246–5249]. Die dreiwöchige Einnahme von Zeolithen im Bestand spezieller diätetischer Lebensmittel senkt die Blutzuckerkonzentration erheblich, wie kontinuierliche Tagesverlaufsmessungen der Blutzuckerkonzentration beispielhaft zeigen (Abb.1).

Von besonderer Bedeutung ist eine zweite Beobachtung: Die oft lebensgefährliche Unterzuckerung in den späten Nacht-/frühen Morgenstunden wird ebenfalls normalisiert (Abb.2).

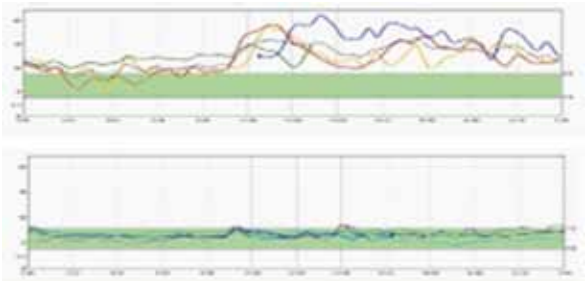

Abb. 1. *Tagesverlaufskurven des Blutzuckerkonzentration bei einer Patientin mit mittelgradigem Diabetes Typ II vor (oben) und nach (unten) dreiwöchiger Einnahme von Nanovit® Metabolic. Die verabreichten Kapseln entsprechen einem Zeolithgehalt von 270 mg pro Tag. Medikation und Ernährungsgewohnheiten der Person haben sich über die Mess- und Einnahmezeiträume nicht verändert.*

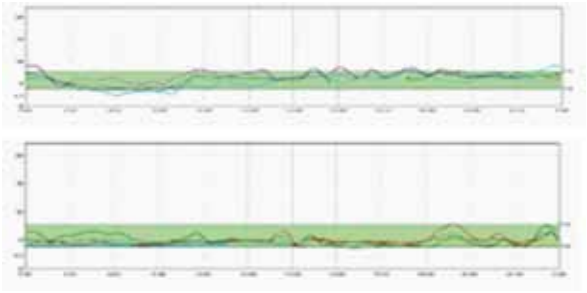

Abb. 2. *Tagesverlaufskurven des Blutzuckerkonzentration bei einem an sich gut eingestellten DM II Patienten mit Neigung zu nächtlicher Unterzuckerung vor (oben, Pfeile) und nach (unten) dreiwöchiger Einnahme von Nanovit® Metabolic.*

COMPLEX RADIO-DIAGNOSTIC FEATURES OF COMPLICATION PREDICTORS AFTER CORONARY ARTERIES STENTING

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The work was aimed to study complex radio-diagnostic parameters as predictors of complications after percutaneous coronary intervention (PCI).

The survey involved 131 male patients aged 20–75 years with multiple coronary arteries lesions and exposed to PCI. Total number of stents was 333, including 164 (49%) with drug emitting coverings (DEC), 169 (51%) — without DEC. As to concomitants diseases, there were 28% patients with diabetes mellitus.

Multi-factorial analysis of 57 quantitative parameters of radiation diagnostics was performed using 3 methods: coronarography, echocardiography, SPECT-tomography (perfusion).

Reasons of repeated referrals for relapses of angina pectoris, arrhythmia, myocardial infarction were analyzed.

The following results were obtained and considered complication predictors:

1. Left coronary artery lesion with the ongoing worsening of end diastolic volume.
2. Ongoing worsening of ejection fraction (EF): of both general and local contractility.
3. Aortic disruption with right heart failure.
4. Combination of lesions of the left coronary arterial trunk and the right ventricle.
5. At the second visit to physician, 26 patients had myocardial infarction. At the first referral, 3 significant parameters were recorded; at the second referral the combined ongoing worsening of EF with lesions of left coronary artery was revealed to be accompanied by impairment of end-diastolic volume (EDV), end-systolic volume (ESV), aggravation of perfusion, and added

right parts: the number of parameters increased from 3 to 6.

6. In case of drug eluting stents in group of patients with myocardial infarction at the second visit to doctor the most reliable in hypokinesis was impairment of anterior left descending part (distal area): p = 0.03
7. Patients with diabetes mellitus most frequently visited the physician: in case of drug eluting stents by the second year, while similar patients with stents without drug eluting coverings presented by the fourth year (p= 0.002).

COMPLEX DIAGNOSIS OF NOSOCOMIAL PNEUMONIA IN SURGICAL PATIENTS — ROLE OF CLARA CELL PROTEIN AND SURFACTANT PROTEIN D

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The objective of the investigation was to estimate the informativity of plasma Clara cell protein (CCP) and surfactant protein D (SPD) in the diagnosis of nosocomial pneumonia in surgical patients.

Materials and methods. The observational study in ICU ventilated septic patients with peritonitis (70%), pancreonecrosis (25%) and mediastinitis (5%) was done in 2010–2015. Nosocomial pneumonia was diagnosed according to the Russian National guidelines. ARDS was diagnosed and staged according to the V.A. Negovsky Research Institute criteria. Plasma CCP and SPD were measured on day 0, 3 and 5 by the immunoenzyme essay (BioVendor, USA). Patients were treated according to the international guidelines. Data were statistically analyzed by STATISTICA 7.0, ANOVA and presented as median and 25 to 75th percentiles (ng/ml); P < 0.05 was considered statistically significant. Areas under the receiver operating (ROC) curves were calculated.

Results. 65 patients were enrolled (out of 312 screened). Patients were assigned into groups: NP + ARDS (n = 43, 43 ± 4.9 years old, M/F 39/4, mortality 23%); NP (n = 22, 40 ± 5.1 years old, M/F 20/2, mortality 18%); no NP (n = 25, 42 ± 5.1 years old, M/F 22/2, mortality 17%). Groups were comparable in APACHE II and SOFA scores on the baseline. In patients with NP caused by Pseudomonas aeruginosa plasma CCP was significantly lower at all points than in the patients with no Pseudomonas aeruginosa detected. Plasma CCP on day 0 had a good capacity for the diagnosis of Pseudomonas aeruginosa NP: CCP on day 0 ≤ 17.5 ng/ml yielded a sensitivity of 92.7% and specificity of 72.0% (AUC 0.84; 95% CI 0.713 to 0.926; P = 0.0001). In the NP + ARDS group SPD was higher at all points than in the NP group. Plasma SPD on day 0 >111.2 ng/ml yielded a sensitivity of 68.2% and specificity of 92.3% (AUC 0.85; 95% CI 0.684 to 0.945; P < 0.0001) for diagnosing ARDS in NP. P/F ratio on day 0 <280 yielded a sensitivity of 94.1% and specificity of 76.9% (AUC 0.89; 95% CI 0.744 to 0.952; P < 0.0001) and EVLWI on day 0 >8.3 ml/kg yielded a sensitivity of 94.1% and specificity of 92.3% (AUC 0.92; 95% CI 0.810 to 0.982; P < 0.0001) for the diagnosis of ARDS in NP. A complex ROC analysis (for SPD in the group of patients with P/F <280 and EVLWI >8.3) yielded a much better diagnostic accuracy of SPD: cutoff >93.7 ng/ml, sensitivity 81.0%, specificity 100.0% (AUC 0.96; 95% CI 0.817 to 0.998; P < 0.0001).

Conclusions. A complex approach – CCP ≤ 17.5 ng/ml + [P/F <280, EVLWI >8.3, SPD >93.7] presents as a sensitive and highly specific method for diagnosing NP and ARDS in surgical patients.