*Apstrakti za oralne prezentacije*

**OP01**

NEOBIČNA PREZENTACIJA SARKOIDOZE KOD BOLESNIKA SA PROLAKTINOMOM

UNUSUAL PRESENTATION OF SARCOIDOSIS IN PATIENT WITH PROLACTINOMA

Adžić-Vukičević Tatjana 1,2, Blanka-Protić Ana 2, Trboljevac Nikola 2, Popević Spasoje 1,2, Savić Milan 1,3, Stojšić Jelena 4, Marković Jelena 4

1 Medicinski fakultet, Univrzitetu Beogradu, Beograd, Srbija / Faculty of Medicine, University of Belgrade, Belgrade, Serbia

2 Klinika za pulmologiju, Klinički Centar Srbije, Beograd, Srbija / Clinic for pulmonology, Clinical Centre of Serbia, Belgrade, Serbia

3 Klinika za grudnu hirurgiju, Klinički Centar Srbije, Beograd, Srbija / Clinic for thoracic surgery, Clinical Centre of Serbia, Belgrade, Serbia

4 Služba za patologiju, Klinički Centar Srbije, Beograd, Srbija / Department for pathology, Clinical Centre of Serbia, Belgrade, Serbia

*Sažetak*

**Uvod**: Sarkoidoza predstavlja sistemsko granulomatozno obolenje nepoznate etiologije koja može da zahvati pluća, limfne žlezde, oči, pljuvačne žlezde, kožu, jetru, slezinu, srce, nervni sistem, mišiće, kosti i druge organe. Sarkoidoza pleure se vrlo retko opisuje, a histopatološki potvrđena je u manje od 3% slučajeva. Prikaz slučaja: Muškarac starosti 39 godina primljen je u bolnici zbog izražene dispnoje prilikom napora koja traje pet meseci. Od podataka iz lične anamneze navodi da se leči zbog tumora hipofize poslednjih pet godina bromokriptinom. Prilikom fizikalnog pregleda uočena je palpabilna limfna žlezda u desnoj nadključnoj jami. Kompjuterizovana tomografija grudnog koša ukazala je na uvećane bilateralne hilarne i multiple medijastinalne limfne žlezde i na pleuralni izliv desno, bez parenhimskih plućnih promena. Serumske vrednosti angiotenzin-konvertujućeg enzima (ACE) bile su u granicama normalnih vrednosti ali su registrovane povećane vrednosti β2 mikroglobulina i tumorskog markera CA 125. Patohistološki nalazi ekstirpirane limfne žlezde vrata i bioptata limfne žlezde medijastinuma uzete prilikom transbronhijalne biopsije vođene ultrazvukom (EBUS-TBNA) ukazali su na hronično nekazeozno granulomatozno obolenje sa epiteloidnim i Langhansovim ćelijama. Video asistirana torakoskopska biopsija (VATS) desne parijetalne pleure i limfnih žlezda medijastinuma potvrdila je dijagnozu sarkoidoze. Lečenje je uspešno započeto peroralnim prednizolonom. Zaključak: Opisani slučaj je važan jer ukazuje na retku lokalizaciju vanplućne sarkoidoze, a ujedno ističe značaj neophodnih dijagnostičkih procedura, patohistologije i diferencijalne dijagnoze.

*Abstract*

**Introduction:** Sarcoidosis represents a systemic granulomatous disease of an unknown cause that may involve the lungs, lymph nodes, eyes, salivary glands, skin, liver, spleen, heart, nervous system, muscules, bones and other organs. Pleural involvement in sarcoidosis is extremly rare and histopathology confirmation is known in less than 3% of all cases with sarcoidosis. **Case presentation**: A 39-year old male visited our hospital with an initial symptom of dyspnea an exertion for a period of 5 months. His past medical history include large tumor of hypophyseos region for past five years which was succsesfully tretaed with bromocriptin. At the presentation he had palpable lymph node in the right supraclavicular space. Chest computed tomography showed large bilateral hilar and multiple mediastinal lymphadenopathy with right pleural effusion and without lung parenchimal changes. His serum angiotensin-converting enzyme (ACE) was in normal range, but β2 microglobulin was elevated as well as tumor marker CA125. Histopathology findings of extirpiated lymph node and biopsy specimens of endobronchial ultrasound-guided transbronchial lung biopsy (EBUS TBNA) were both concluded on chronic granulomatous inflammation with noncaseating epitheloid cell granulomas and Langhans cells. Finally, video-assisted thoracoscopic surgery (VATS) with biopsy of right parietal pleura and mediasinal lymph nodes confirmed diagnosis of sarcoidosis. Treatment started succesfully with oral prednisolone. **Conclusions**: This case is important because it highlights unusual presentation of extrapulmonary sarcoidosis and importance of appropriate diagnostic procedures, histopathology and differential diagnosis.

**OP02:**

ANTISINTETAZNI SINDROM- PRIKAZ SLUČAJA

ANTISYNTHETASE SYNDROME- A CASE REPORT

Aranđelović Snežana 1, Plavšić Aleksandra 1, Jovičić Žikica 1, Cvok Tijana 2, Dimitrijević Milan 1, Perić Popadić Aleksandra 1, Tomić Spirić Vesna 1

1 Klinika za alergologiju i imunologiju, Klinički Centar Srbije / 1 Clinic of Allergy and Immunology, Clinical Centre of Serbia

2 Klinka za pulmologiju, Klinički Centar Srbije / Clinic for Pulmnology, Clinical Centre of Serbia

*Sadržaj*

**Uvod**: antisintetazni sindrom je redak autoimunski poremećaj koji se karakteriše prisustvom autoantitela usmerenih na aminoacil-tRNA-sintetazu i kliničkim manifestacijama u vidu intersticijalne bolesti pluća, miozitisa, Raynaud fenomena, povišene telesne temperature, artritisa i “mehaničkim rukama”. Interesticijalna bolest pluća je vrlo često vodeća klinička prezentacija i može biti rapidno progresivnog toka.**Prikaz slučaja**: pacijentkinja starosti 63 godine, nepušač, prvi put ispitivana na Klinici za alergologiju i imunologiju Kliničkog Centra Srbije (KCS) 2015. godine zbog kašalja, sviranja u gudima, artralgija, povišene telesne temperature, Rayanud fenomena, ospe na koži, gubitka u telesnoj težini. Biohemijske analize su pokazale zapaljenski sindrom i povišen CK, a imunološki parametri + ANA , + Ro-52, + PL-7, +krioglobuline. Rtg srca i pluća je ukazao na nehomogeno zasenčenje u srednjem i donjem plućnom polju levo, sa dominacijom mrljastih i diskretnih trakastih senki. Elektroneuromiografski nalaz nije registrovao miopatske potencijale. Patohistološki nalaz biopsije kožnih promena je ukazao na leukocitoklastični vaskulitis. Ispitivanjem zaključeno da postoje određeni imunološki (+ PL7, + Ro 52) i klinički pokazatelji (artralgije, povišena telesna temperature,Raynud fenomen,moguća plućna lezija) antisintetaznog sindroma, kao i sekundardni krioglobulinemijski vaskulitis. Radi daljeg ispitivanja promena na plućima, hospitalizovana na Klinici za pulmologiju, KCS kada je zaključeno da se radi o fibrozi pluća (MSCT, bronhoskopija). Lečena glikokortikoidnom terapijom. Krajem 2018. godine je drugi put hospitalno lečena na Klinici za alergologiju i imunologiju KCS zbog izraženog zamaranja, kašlja, povišene telesne temperature. Verifikovana plućna fibroza (MSCT), porast misićnih ezima i anti-t RNA sinetetazna antitela. Potvrđena je dijagnoza antisintetaznog sindroma sa dominantnom lezijom pluća i miozitisom. U terapiju je uveden i mikofenolat mofetil. **Zaključak:** antisintetazni sindrom je redak autoimunski poremećaj sa specifičnim imunoserološkim markerima i treba ga razmatrati kod pacijenata sa interticijalnim bolestima pluća.

*Abstract*

**Introduction:** Antisynthetase syndrome is a rare autoimmune condition characterized by autoantibodies against aminoacyl- tRNA-synthetases and clinical manifestations of interstitial lung disease, myositis, Raynaudʼs phenomenon, arthritis, fever and “mechanicʼs hands”. Interstitial lung disease is often dominant clinical presentation and can be rapidly progressive. **Case report:** A 63-year old female patient, non smoker, was admitted at the Clinic of Allergy and Immunology, Clinical Centre of Serbia in 2015 due to coughing, wheezing, arthragie, fever, Raynaudʼs phenomenon, skin rash and weight loss. Biochemistry analysis showed elevated inflammatory markers and CK, and immunological tests showed + ANA, + Ro-52, + PL-7, + cryoglobulins. Chest radiograph showed inhomogeneous shading in the middle and lower left lung lobes, dominated by blotchy and discrete shadows. Electroneuromyography didn’t reveled myopathic lesions. Histopathology of the skin biopsy showed leukocytoclastic vasculitis. We concluded that there were certain immunological (+ PL7, + Ro 52 autoantibodies) and clinical manifestations (arthragie, fever, Raynaudʼs phenomenon, possible lung involvement) suggestive for antisynthetase syndrome, and also cryoglobulinemic vasculitis. Further examinations including bronchoscopy, multi slice computed tomography (MSCT) were done at Clinic for Pulmnology, Clinical Centre of Serbia. The diagnosis of pulmonary fibrosis was made. She was treated with corticosteroid therapy. In 2018 she was admitted again at the Clinic of Allergy and Immunology, Clinical Centre of Serbia due to pronounced fatigue, coughing, fever. The pulmonary fibrosis was verified (MSCT) with elevated muscle enzymes and the presence of autoantibodies against aminoacyl- tRNA-synthetases. The diagnosis of antisynthetase syndrome was confirmed with dominant lung lesions and myositis. Mycophenolate mofetil was introduced in therapy. **Conclusion:** Antisynthetase syndrome is a rare autoimmune condition that is characterized by specific immunoserological markers and should be considered in patients with interstitial lung diseases.

**OP03:**

PLUĆNA HIPERTENZIJA I FIBROZA PLUĆA U SISTEMSKOJ SKLEROZI

PULMONARY HYPERTENSION AND PULMONARY FIBROSIS IN SYSTEMIC SCLEROSIS

Aranđelović Snežana 1,2, Plavšić Aleksandra 1,2, Perić Popadić Aleksandra 1,2 Dimitrijević Milan 1, Veličković Antonije 1, Tomić Spirić Vesna 1,2

1Klinika za alergologiju i imunlogiju, KCS / Clinic for Allergy and Immunology , Clinical Centre of Serbia

2Medicinski fakultet Univerziteta u Beogradu / Faculty of Medicine, University of Belgrade

*Sažetak*

Sistemska skleroza (SS) je multisistemsko oboljenje koje se odlikuje funkcionalnim i strukturnim abnormalnostima krvnih sudova, fibrozom kože i unutrašnjih organa, aktivacijom imunskog sistema i autoimunosti. Plućna hipertenzija (PH) se javlja kod 10-15% pacienata i često je uslovljena različitim patofiziološkim mehanizmima.

Prikaz slučaja: Pacijent star 48 g., prve tegobe u vidu kašlja, bolova u grudima i povišene temperature počinju u avgustu 2016. pridružuju se artralgije, oticanje šaka i stopala. Na Rtg pluća i MSCT uočene su bazalno obostrano infiltrativne nodularne senke uz pleuralni izliv levo, dijagnostokovana NSIP i leči antibioticima. U Januaru 2017, lečen na Klinici za plućne bolesti KCS kada se uočavaju sniženi parametri plućne funkcije, pozitivan zapaljenski sindrom, povišene vrednosti hitotriozidaze, uz PH nalaz granuloma bez centralne nekroze, postavlja se dijagnoza sarkoidoze, uvodi terapija malim dozama Pronisona. Kliničkom slikom dominiraju malaksalost i slaba tolerancija fizičkog napora, otok šaka i stopala, restrikcija ventilacije i snižena difuzija. Imunoserološki pozitivna ANA >>1/640, anti Scl 178.5, RF 102,2. Pacijent preveden na Kliniku za alergologiju i imunologiju KCS, gde registruje skleroderma, kapilaroskopski teška mikroangiopatija, te se postavlja dijagnoza SS. Ehokardiografijom se registruje pritisak u desnoj komori 51mmHg, kateterizacijom desnog srca 46mmHg. U terapiju uveden ciklofosfamid, uz vazodilatatore (antagoniste Ca, sildenafil). U daljem toku se ciklofofamid zamenjuje metotreksatom obzirom na nezadovoljavajući efekat. Plućna hipertenzija se održava, a kliničkom slikom dominira dispnea i slaba tolerancija fizičkog napora. Tokom 2018. progresija promena na koži i intersticijumske bolesti pluća. U terapiju se uvodi Bosentan, a Metotreksat zamenjen mikofenolat mofetilom uz dobar klinički odgovor.

Ističemo značaj rane dijagnoze SS koja nekada inicijalno može imitirati druge inflamatorne i autoimunske bolesti, kao i značaj ranog uvođenja imunosupresivne terapije u inflamatornoj fazi bolesti kada je moguće postići reverzibilnost, uz vazodilatatore u cilju kontrole PH kao jednog od glavnih faktora rizika smrtnog ishoda kod bolesnika sa SS.

*Abstract*

Introduction: Systemic sclerosis (SS) is a multisystemic disease characterized by functional and structural abnormalities of blood vessels, fibrosis of the skin and internal organs, activation of the immune system and autoimmunity. Pulmonary hypertension (PH) occurs in 10-15% of patients and is often caused by various pathophysiological mechanisms.

Case report: A 48 year old patient, experienced cough, chest pain and fever in August 2016, joined by arthralgia and swelling of the hands and feet. Basal bilateral infiltrating nodular shadows with pleural effusion to the left lobe were observed on the chest radiography and MSCT, diagnosis of NSIP was made and he was treated with antibiotics. In January 2017 he was addmited at the Clinic for Pulmnology Clinical Centre of Serbia (CCS) where pulmonary function parameters were lowered, positive inflammatory syndrome and elevated chitotriosidase values, with PH finding of granuloma without central necrosis consistent with diagnosis of sarcoidosis. He was treated with low doses of Pronisone. He complained about progressive dyspena and fatigue and poor tolerance of physical effort, swelling of the hands and feet, pulmonary function tests showed restriction of ventilation and reduced diffusion. Laboratory showed positive ANA, anti Scl, RF. The patient was sent to the Clinic for Allergy and Immunology of CCS. Prominent scleroderma, capillaroscopically severe microangiopathy, together with MSCT and spirometry as well as imunologic parametars were consistent with diagnosis of SS. Echocardiography revealed right ventricle pressure of 51mmHg, while right heart catheterization showed 46mmHg. Cyclophosphamide was introduced into therapy with vasodilatators (Ca antagonists, sildenafil). Cyclofofamide failed to give expected improvement and it was replaced with methotrexate. Pulmonary hypertension was maintained and clinical presentation was characterised with dyspnea and poor tolerance of physical effort. During 2018, skin changes and interstitial lung disease progressed. Bosentan was introduced into therapy and methotrexate replaced by mycophenolate mofetil with good clinical response.

Conclusion: We emphasize the importance of early diagnosis of SS, which may sometimes initially mimic other inflammatory and autoimmune diseases, as well as the importance of early introduction of immunosuppressive therapy in the inflammatory stage of the disease when it is possible to achieve reversibility, together with vasodilators in order to control PH as one of the major risk factors for fatal outcome in patients with SS.

**OP04:**

PULMONALNA ASPERGILOZA KAO PRVA KLINIČKA MANIFESTACIJA APSCEDIRAJUĆEG KARCINOMA PLUĆA – PRIKAZ SLUČAJA

PULMONAL ASPERGYLOSIS AS THE FIRST CLINICAL MANIFESTATION OF ABSCESSING LUNG CANCER - CASE REPORT

Bjelaković Marko 1,3, Radović Milan2,3, Cekić Marina 1, Rančić Milan1,3, Pejčić Tatjana 1,3,Božanić Borislav1,3, Topalović Marija1,3, Marinković Marija

1 Klinika za plućne bolesti, Klinički centar Niš / Clinic of Pulmonary Diseases, Clinical Center Nis

2 Klinika za grudnu hirurgiju, Klinički Centar Niš / Clinic of Thoracic Surgery, Clinical Center Nis

3 Medicinski fakultet Univerziteta u Nišu / Medical Faculty, University of Nis

*Sažetak*

Pulmonalna aspergiloza predstavlja formu plućne mikoze uzrokovanu gljivicama iz roda Aspergilus.

Pacijentkinja stara 52 godine, hospitalizovana je zbog tegoba u vidu jutarnjeg kašlja, iskašljavanja gustog žućkastog sadržaja i promuklosti, kao i radiološki viđene debelozidne kavitacije u projekciji desnog gornjeg plućnog režnja na standardnom radiogramu grudnog koša. Rutinske laboratorijske analize seruma su bile u referentnim granicama. MSCT grudnog koša i gornjeg abdomena opisivao je u istoj anatomskoj projekciji, kavitaciju od 67 mm, neravnomerne debljine zidova, koja postkontrastno pokazuje pojačanje denziteta, sa zahvatanjem sva tri lobusa, uz obe incizure. Unutar kavitacije bila je prisutna mekotkivna formacija, kao sekundarna infekcija kaverne. Registrovan je pozitvan titar antitela (At) na Aspergilus fumigatus (IgM 238 IU/ml, IgG 71 IU/ml), a fiberoptičkom bronhoskopijom direktni znaci neresektabilnog tumorskog procesa u desnom bronhijalnom stablu, dok je histopatološka analiza uzetih biopsata plućnog tkiva dokazala planocelularni karcinom pluća. Pacijentkinja je prezentovana onkološkom Konzilijumu, koji donosi odluku da se završi već započeto lečenje plućne aspergiloze peroralnim Vorikonazol-om, a potom otpočne lečenje hemioterapijom po režimu Gemzar-Cisplatina. Nakon završenog antimikotičnog lečenja, sprovedena su četiri ciklusa antineoplastične hemioterapije, da bi po završetku iste bile registrovane granične vrednosti titra At na Aspergilus fumigatus (IgM 56 IU/ml, IgG 60 IU/ml), sa MSCT radiološkom regresijom ranije opisivane plućne kavitacije na 52 mm što je uz aktuelni asimptomatski performans status pacijentkinje, konzilijarno ocenjeno kao stabilna bolest.

Udruženost plućne aspergiloze sa karcinomom pluća je retka i uglavnom nastaje i razvija se kao posledica značajne imunodeficijencije ovih bolesnika, ali i ”dijagnostičkog lutanja” u savremenim okolnostima veće dostupnosti brojnih imaging procedura.

*Abstract*

Pulmonary aspergillosis is a form of pulmonary mycosis caused by fungi of the genus Aspergilus.

The 52-year-old patient was hospitalized for morning cough problems, coughing up of thick yellowish contents and hoarseness, as well as radiologically observed thick-walled cavitation in the projection of the right upper lung lobe on a standard chest radiograph. The routine laboratory analyzes were within the reference range. The MSCT of the thorax and upper abdomen described, in the same anatomical projection, 67 mm cavitation, of uneven wall thickness, with the involvement of all three lobes and both incisions. Within the cavitation, a soft-tissue formation was present, as a secondary cavern infection. Positive antibody titer (At) was detected for Aspergilus fumigatus (IgM 238 IU/ml, IgG 71 IU/ml), and by direct fiberoptic bronchoscopy, direct signs of an unresectable tumor process in the right bronchial tree, while histopathological analysis of pulmonary tissue biopsies revealed lung cancer. The patient is presented to the Oncology Consilium, who decides to complete the already started treatment for pulmonary aspergillosis with oral Voriconazole, and then begins treatment with Gemzar-Cisplatin chemotherapy. Following the completion of antifungal treatment, four cycles of antineoplastic chemotherapy were performed. It resulted in the borderline values ​​of At titer on Aspergilus fumigatus (IgM 56 IU/ml, IgG 60 IU/ml), with MSCT radiological regression of the previously described pulmonary cavity of 52 mm which, with the current asymptomatic performance. The status of the patient was evaluated as stable disease.

The association of pulmonary aspergillosis with lung cancer is rare and mainly occurs as a consequence of the significant immunodeficiency of these patients, but also as a result of “diagnostic wandering” in the circumstances of the increased availability of numerous imaging procedures.

**OP05:**

AKUTNA RESPIRACIJSKA INSUFICIJENCIJA KOD PACIJENTA SA DERMATOMIOZITISOM: PRIKAZ SLUČAJA

ACUTE RESPIRATION INSUFFICIENCY IN PATIENT WITH DERMATOMYOSISIS: CASE REPORT

CvetkovićSnežana 1, Vujić Tatjana 1, Nagorni –Obradović Ljudmila 1,2, Samardžić Ana 1, Grbić Andrijana 1

1 Klinika za pulmologiju, Klinički centar Srbije,Beograd / Clinic for Pulmonology, Clinical Center of Serbia, Belgrade

2 Medicinski fakultet, Univerzitet u Beogradu,Srbija / Faculty of Medicine, University of Belgrade, Serbia

*Sažetak*

**Uvod:** dermatomiozitis je idiopatsko zapaljenska miopatija koju karakteriše simetrična proksimalna miopatija, povišeni mišićni enzimi, tipičan kožni osip, periorbitalni ili makularni violetni eritem. Može se preklapati sa drugim poremećajima vezivnog tkiva, sa intersticijumskom bolešću pluća, oboljenjima srca i jednjaka i malignim oboljenjima. **Prikaz slučaja**: pacijentkinja starosne dobi 40 godina, juna 2018. godine u Klinici za dermatovenerologiju postavljena dijagnoza dermatomiozitisa, ordiniran Pronison. Inicijalna radiografija grudnog koša uredna. MSCT grudnog koša: fini retikularni i paučinast prikaz parenhima po periferiji, subpleuralno obostrano bazalno, mestimične mikronodularne difuzne promene u intersticijumu. Hospitalizovana u Klinici za pulmologiju KCS: spirometrijska restrikcija, snižena difuzija, biopsija malim klještima, PH nalaz nespecifičan. Fiberaspirat M, K i PCR negativan na Mycobacterium tuberculosum. Kontrolni MSCT grudnog koša progresija. Prikazana Konzilijumu za fibroze pluća, nalaz ukazuje na ILD u okviru sistemske bolesti. Sa znacima respiratorne infekcije hospitalno lečena u Klinici za dermatovenerologiju KCS marta 2019. god. Ponovljen MSCT grudnog koša-nalaz stacionaran. Učinjena polipektomija cerviksa, PH nalaz: Polypus fibroglandularis. EHO dojki-nalaz uredan, EHO pazušnih jama-u desnoj pazušnoj jami uočava se lgl promera 20mm, Ca 15-3 povišen. Planirana mamografija i pregled onkologa. Otpuštena u dobrom opštem stanju. Nakon 3 dana hospitalizovana u regionalnoj bolnici sa znacima parcijalne respiracijske insuficijencije, prevedana radi daljeg lečenja u Kliniku za pulmologiju. Navodi alergiju na Brufen i Diklofen,vitiligo. Pušač radila u hemijskoj industriji. U kući brojni ljubimci (pas, mačka, papagaj, zečevi, golub, kornjača). Pri prijemu izrazito dispnoična, bazalno obostrano kasnoinspirijumski pukoti. Radiografski obostrano difuzno fibrozne mrljaste promene, znaci parcijalne respiracijske insuficijencije, prisutan zapaljenski sindrom, tu markeri povišeni. Primenjen NIMV, deopstruktivna, antibiotska (meropenem, levofloxacin, moxifloxacin, cefepim, vancomycin), antivirotik (oseltamivir), antimikotik (fluconasol), kao i simtomatska terapija. Dolazi do komplikacija u vidu bilateralnog pneumotoraksa sa pneumomedijastnumom. Plasirani bilateralni torakalni drenovi, intubirana na mehaničkoj ventilaciji, aspiriran gnoj. Devetnaestog dana hospitalizacie nastupa letalni ishod. Zaključak: prikazali smo pacijentkinju koja se unazad godinu dana lečila od dermatomiozitisa. Kontrolisana od strane pulmologa. Fudrojantni tok je nastao zbog intersticijumskog oboljenja pluća na terenu dermatomiozitisa u čijoj je osnovi najverovatnije bilo i maligno oboljenje nepoznate etiologije, jer dalja ispitivanja nisu učinjena zbog lošeg opšteg stanja pacijentkinje.

*Abstract*

**Introduction**: Dermatomyositis is an idiopathic inflammatory myopathy characterized by symmetrical proximal myopathy, elevated muscle enzymes, typical skin rash, periorbital or macular violet erythema. It may overlap with other connective tissue disorders, with interstitial lung disease, heart and esophageal diseases and malignancies. Case review: Patient aged 40, diagnosed with dermatomyositis, administered by Pronison, at the Dermatovenerology Clinic in June 2018. Initial chest radiography neat. Chest MSCT: fine reticular and spider web display of parenchyma periphery, subpleural bilateral basal, occasional micronodular diffuse changes in interstitium. Hospitalized at the KCS Pulmonology Clinic: spirometric restriction, reduced diffusion, small-tongue biopsy, PH finding nonspecific. Fiberaspirate M, K and PCR negative on Mycobacterium tuberculosum. Control MSCT of chest progression. Presented to the Council for Lung Fibrosis, the finding indicates ILD within systemic disease. With signs of respiratory infection hospitalized at the KCS Dermatovenerology Clinic in March 2019. Repeated chest MSCT finding stationary. Cervical polypectomy done, PH finding: Polypus fibroglandularis. Breast EHO - finding neat, armpit EHO - lgl 20mm in diameter, Ca 15-3 elevated in right armpit. Scheduled mammography and oncologist screening. Discharged in good general condition. After 3 days hospitalized at a regional hospital with signs of partial respiratory failure, translated for further treatment at the Pulmonology Clinic. Cites allergy to Brufen and Diclofen, vitiligo. Smoker, worked in the chemical industry. Numerous pets in the house (dog, cat, parrot, rabbit, pigeon, turtle). On admission extremely dyspnoic, basal bilateral late-expiratory fissures. Radiographically bilateral diffuse fibrous patches of change, signs of partial respiratory failure, inflammatory syndrome present, markers elevated there. Applied NIMV, de-obstructive, antibiotic (meropenem, levofloxacin, moxifloxacin, cefepim, vancomycin), antivirotic (oseltamivir), antifungal (fluconasol), as well as symptomatic therapy. Placed bilateral thoracic drains, intubated on mechanical ventilation, aspirated pus. On the nineteenth day of hospitalization, a lethal outcome occurs**. Conclusion**: We presented a patient who had been treated for dermatomyositis for a year or so. Controlled by a pulmonologist. Fudroyant flow was due to interstitial lung disease in the field of dermatomyositis, which was most likely a malignant disease of unknown etiology, since further studies were not done because of the poor general condition of the patient.

**OP06:**

POREMEĆAJ TELESNE MASE KAO SISTEMSKI EFEKAT HOBP

WEIGHT DISORDER AS A SYSTEMIC EFFECT OF COPD

Dimić Dejan 1, Dimić Nemanja 2, DimićIvana 3, Damnjanović Ivana 4, Timotijević Ljiljana 1, Stošić Kristina 1, Radević Olivera 1, Petrović Miljana 1

1 Gradski Zavod za plućne bolesti i TB Beograd / City Institute for Pulmonary Diseases and TB Belgrade

2 Institut za hirurško-ortopedske bolesti Banjica Beograd / Institute for Surgical Orthopedic Diseases Banjica Belgrade

3 Zavod za zdravstvenu zaštitu radnika Železnice Srbije / Institute for Health Protection of Workers of the Serbian Railways

4 ADOC d.o.o. / ADOC d.o.o.

*Sažetak*

**Uvod**: najznačajniji sistemski efekti HOBP su: gubitak u telesnoj masi, poremećaj ishrane i disfunkcija skeletnih mišića. Cilj rada: utvrditi učestalost poremećaja telesne mase kod obolelih od HOBP i značaj njenog korigovanja na tok bolesti. Kod 218 bolesnika lečenih od HOBP u GZZPBiTB Beograd od 01.01.2017 do 31.12.18. praćen je BMI, MRC i plućna funkcija u toku šest meseci. Rezultati: 94 (43,1%) bolesnika imalo je BMI manji od 18,5 a 68 (31,2%) BMI veći od 30,0. Tokom praćenja u grupi BMI <18,5 došlo je do porasta BMI za 7,1%, a u grupi BMI >30,0 do smanjenja BMI za 7,9%. Bolesnici sa BMI< 18,5 i BMI>30,0 najčešće su bili u B ( <18,5 - 42,6% ; >30,0 - 42,6%) i D (<18,5 - 36,1% ; > 30,0 - 23,5%) stadijumu. Posle šest meseci, korekcijom telesne mase uz identičnu terapiju u grupi sa BMI<18,5 došlo je do povećanja vrednosti MRC za 16,3%, porasta FVC za 6,2% i FEV1 za 6,7%, a u grupi sa BMI>30,0 do povećanja MRC za 13,4% FVC za 5,8% i FEV1 za 6,1%. Zaključak: popravljanje telesne mase kod obolelih od HOBP značajno poboljšava kvalitet njihovog života, iako to nije praćeno odgovarajućim poboljšanjem plućne funkcije.

*Abstract*

**Introduction**: The most significant systemic effects of COPD are: weight loss, eating disorders and skeletal muscle dysfunction. Goal: Determine the incidence of weight disorders in COPD patients and the importance of correcting them for the course of the disease.

In 218 patients, treated for COPD in GZZPBiTB Belgrade from 01.01.2017 to 31.12.18, BMI, MRC, and pulmonary function were monitored for six months. Results: 94 (43.1%) patients had a BMI less than 18.5 and 68 (31.2%) had a BMI greater than 30.0. During the follow-up in the BMI group <18.5 there was a 7.1% increase in the BMI and in the BMI group> 30.0 a decrease in the BMI by 7.9%. Patients with BMI <18.5 and BMI> 30.0 were most commonly in B (<18.5 - 42.6%;> 30.0 - 42.6%) and D (<18.5 - 36.1 %;> 30.0 - 23.5%) stage. After six months, body weight correction with identical therapy in the BMI group <18.5 increased the MRC value by 16.3%, increased FVC by 6.2% and FEV1 by 6.7%, and in the BMI group> 30.0 to an increase in MRC by 13.4% FVC by 5.8% and FEV1 by 6.1%. Conclusion: Weight loss in COPD patients significantly improves their quality of life, although this is not accompanied by a corresponding improvement in pulmonary function.

**OP07:**

ABCD STADIJUMI PRE I POSLE IMUNIZACIJE PROTIV SEZONSKOG GRIPA KOD HOBP PACIJENATA

ABCD STAGES BEFORE AND AFTER IMMUNIZATION AGAINST SEASONAL FLU in COPD PATIENTS

Ilić Miroslav 1,2, Tot Vereš Kristina 1, Jankov Matić Jelena 1, Somborac Stevan 1

1 Univerzitet u Novom Sadu, Medicinski fakultet Novi Sad / University of Novi Sad, Medical faculty Novi Sad

2 Institut za plućne bolesti Vojvodine, Sremska Kamenica / Institute for pulmonary diseases of Vojvodina

*Sažetak*

**Uvod:** Virus influence je najčešći uzročnik egzacerbacija kod hronične opstruktivne bolesti pluća (HOBP). Svetska zdravstvena organizacija (SZO) preporučuje vakcinaciju protiv sezonskog gripa kod 75 % hronično obolelih osoba i starijih. EU i SAD su uspeli da vakcinišu 45 %, dok ostali deo sveta je značajno manje uspešan. **Cilj rada** je bio da se utvrdi efektvnost imunizacije protiv sezonskog gripa kod HOBP u cilju prevencije egzacerbacija koristeći ABCD stadijume za praćenje. Metod: Prospektivna studija je obuhvatila period 2015-2018, HOBP pacijente lečenih u Institutu za plućne bolesti Vojvodine. Studija je obuhvatila jednogodišnji period praćenja svakog pacijenta, vakcinaciju protiv sezonskog gripa i egzacerbacije. **Rezultat**i: Studija je obuhvatila 1202 pacijenta: 689 (57.3%) muškaraca, prosečne starosti (63.2± 9.1), svaki treći je vakcinisan (411, 34.2%). Pacijenti u A (137, 40.7 %) i D stadijumu (154, 35.2 %) su se češće vakcinisali. Nakon godinu dana, samo je A stadijum imao veći broj pacijenata (366 (27.8%) vs. 450 (37.5%), p=0.027) u odnosu na B,C,D i početak studije. Skoro svaki drugi vakcinisani pacijent je bio u A stadijumu (197, 47.9%). Egzacerbacije su bile ređe nakon godinu dana praćenja pacijenata (926 (77.0%) vs. 818 68.7%, p=0.017). Univarijatna logistička analiza je pokazala da je značajan prediktor za egzacerbacije vakcinacija (RR 0.721; 95% CI (0.544 - 0.862); p=0.001), ali ne i protektivni multivarijatnom logističkom analizom**. Zaključak:** Postoji stalna i kontinuirana potreba za podizanje svesti o imunizaciji protiv sezonskog gripa kod HOBP pacijenata radi smanjenja hospitalizacija i smrtnosti.

*Abstract*

**Introduction**: The influenza virus is mostly common cause of exacerbation among COPD patients. Recommended immunization against seasonal flu is about 75 % (WHO), but in EU and USA has 45 % coverage. The immunization rates are fare below in the rest of the world. **The aim** of the study was to circumstantiate the effectiveness of immunization against seasonal influenza in prevention of exacerbations, using ABCD stages. **Method**:A prospective study analyzed 4 season years (2015/16 –2018/19) of COPD patients, over 40 years old, treated and examined at the Institute of Pulmonary Diseases of Vojvodina. The study encompassed a once-per-year monitoring of each patient with a check of immunization against seasonal flu and exacerbations. Results: The study included 1202 patients: 689 (57.3%) males, average age (63.2± 9.1), a little over 1/3 of the patients (411, 34.2%) had been vaccinated. Patients from A (137, 40.7 %) and D (154, 35.2 %) stages had immunization more frequently than other two. After one year of follow up, only A stage had more patients (366 (27.8%) vs. 450 (37.5%), p=0.027). Almost every second vaccinated patient was in A stage (197, 47.9%). Exacerbations occurred more in previous than study year (926 (77.0%) vs. 818 68.7%, p=0.017). In univariate logistic regression analysis, significant predictors of COPD exacerbations were vaccination (RR 0.721; 95% CI (0.544 - 0.862); p=0.001), but not in multivariate logistic regression. **Conclusion:** There is a need for intensifying programs for raising awareness about vaccination among COPD patients in order to reduce hospitalization and mortality.

**OP08:**

NAJKORISNIJI DIJAGNOSTIČKI POSTUPCI U INTERVENTNOJ PULMOLOGIJI

THE MOST USEFUL DIAGNOSTIC PROCEDURES IN INTERVENTIONAL PULMONOLOGY

KarličićVukoica 1, Čemerikić Vesna 2, Tatomirović Željka 3

1 Odeljenje za interventnu pulmologiju i bronhoskopiju, Bolnica Euromedik II, Beograd / Department of Interventional Pulmonology and Bronchoscopy, Hospital Euromedic II, Belgrade, Serbia

2 Odeljenje za patohistološku dijagnostiku; Beo Lab, Beograd / Department of histopathology, Medical Laboratory Beo-Lab, Belgrade, Serbia

3 Citološka laboratorija Konzilijum,Beograd / Citology Laboratory, Konzilijum, Belgrade, Serbia

*Sažetak*

Biopsija promena u plućima i medijastinumu se vrši interventnim pulmološkim i bronhoskopskim postupcima.. U Bolnici Euromedik II, je kod 430 bolesnika potvrđena etiologija bolesti, kod 404 bolesnika maligna bolest i kod 26 bolesnika sarkoidoza. Karcinom pluća je potvrđen kod 384 bolesnika, metastatski karcinomi kod 14 i limfomi kod 6 bolesnika. Aspiracionom biopsijom limfnih žlezda(TBNA)- potvrda bolesti je dobijena u 47,9% bolesnika a tru-cut iglenom biopsijom kod 32,1% bolesnika. Najkorisnije procedure interventne pulmologije u analiziranoj grupi bolesnika, su TBNA i TRU-CUT iglene biopsije. Ovim postupcima je dijagnoza potvrđena kod 80% bolesnika.

*Abstract*

Biopsy of the changes in the lungs and mediastinum is performed by various interventional pulmonology and bronchoscopic procedures.In Hospital Euromedic II we confirmed the etiology of the disease in 430 patients (404 patients were diagnosed with malignant disease, and 26 patients were diagnosed with sarcoidosis). Lung cancer was diagnosed in 384 patients, metastasis were found in 14 patients and 6 patients were diagnosed with lymphoma. In 47,9% of patients diagnosis was made using aspirational biopsy of the lymph node (TBNA), while 32,1% of patients were diagnosed using Tru-Cut needle biopsy. The most useful procedures in interventional pulmonology in this group of patients are TBNA and Tru-Cut needle biopsy. Using these procedures we confirmed the diagnosis in 80% of patients.

**OP09:**

KRATKOROČNI EFEKTI ZAGAĐENJA VAZDUHA NA POGORŠANJA ALERGIJSKE ASTME U REGIONU UŽICE, SRBIJA

SHORT-TERM EFFECTS OF AIR POLLUTION ON EXACERBATIONS OF ALLERGIC ASTHMA IN UŽICE REGION, SERBIA

Kovačević Gordana 1, Tomić-Spirić Vesna 2,3, Marinković Jelena 4, Janković Slavenka 5, Ćirković Anđa 4, Milošević Đerić Ana 1, Erić Miloš 6, Janković Janko 7

1 General Hospital Užice, Užice, Serbia / General Hospital Užice, Užice, Serbia

2 Faculty of Medicine, University of Belgrade, Belgrade, Serbia. / Faculty of Medicine, University of Belgrade, Belgrade, Serbia.

3 Clinic for Allergology and Immunology, Clinical Centre of Serbia, Belgrade, Serbia / 3Clinic for Allergology and Immunology, Clinical Centre of Serbia, Belgrade, Serbia

4 Institute of Medical Statistics and Informatics, Faculty of Medicine, University of Belgrade, Belgrade, Serbia / Institute of Medical Statistics and Informatics, Faculty of Medicine, University of Belgrade, Belgrade, Serbia

5 Institute of Epidemiology, Faculty of Medicine, University of Belgrade, Belgrade, Serbia / Institute of Epidemiology, Faculty of Medicine, University of Belgrade, Belgrade, Serbia

6 Faculty of Economics, Finance and Administration, Metropolitan University, Belgrade, Serbia

7 Institute of Social Medicine, Faculty of Medicine, University of Belgrade, Belgrade, Serbia / Institute of Social Medicine, Faculty of Medicine, University of Belgrade, Belgrade, SerbiaAdv Dermatol Allergol 37(3), 2019

***Correspondence to***

g.kovacevic.63@gmail.com

***Ključne reči***

Zagađenje vazduha, alergijska astma, posete hitnih službi, dizajn krosovera, Srbija.

***Key words:***

Air pollution, allergic asthma, emergency department visits, case-crossover design, Serbia.

*Sažetak*

**Uvod**: Mnoge studije vremenskih serija pokazale su pozitivnu povezanost između zagađenja vazduha i pogoršanja astme. Međutim, do sada je samo jedna studija u Srbiji ispitala taj odnos. **Cilj**: Ispitati povezanost između zagađenja vazduha i javljanja hitnim sližbama zbog pogoršanja astme u regionu Užice, Srbija. **Materijal i metode:** Za 424 posete Hitnim službama zbog pogoršanja astme primenjen je vremenski dizajnirana studija , casse cros-over u regionu Užice u Srbiji u periodu 2012-2014. Podaci o posetama Hitnim službama su bili rutinski prikupljeni u Domu zdravlja Užice. Dnevne prosečne koncentracije čestica (PM2.5 i PM10), sumpor dioksid (SO2), azotni dioksid (NO2) i crni ugljenik (BC) mereni su u automatskim ambijentim stanicama za praćenje kvaliteta vazduha. Unakrsni odnos (UO) i odgovarajući intervali pouzdanosti od 95% su procenjeni upotrebom uslovne logističke regresije prilagođene potencijalnom neželjenom uticaju vremenskih varijabli (temperatura, vlaga i pritisak vazduha). **Rezultati**: Statistički značajne povezanosti primećene su između poseta Hitnim službama zbog pogoršanja astme tri dana nakon izlaganja čadji BC-u (OR = 3,23; CI = 1,05−9,95) i između poseta Hitnim službama zbog astme sa koegzistirajućim alergijskim rinitisom na dan javljivanja zbog NO2 (OR = 1,57; CI = 0,94-2,65), i dva dana nakon izlaganja SO2 (OR = 1,97; CI= 1,02−3,80) i 3 dana nakon izloženosti PM10 (OR = 2,38; CI = 1,17−4,84). **Zaključak:** Izloženost zagađenju okolnog vazduha u regionu Užice povećava rizik od posete Hitnim Službama zbog astme, posebno tokom grejne sezone.

*Abstract*

**Introduction**: Many time series studies have shown positive association between air pollution and asthma exacerbation. However, till now only one study in Serbia has examined this relationship**. Aim:** To examine the associations between air pollution and asthma emergency department (ED) visits in Užice region, Serbia. **Material and methods**: A time-stratified case-crossover design was applied to 424 ED visits for asthma exacerbation that occurred in Užice region, Serbia between 2012-2014. Data about ED visits were routinely collected in Health Center Užice. The daily average concentrations of particulate matter (PM2.5 and PM10), sulphur dioxide (SO2), nitrogen dioxide (NO2), and black carbon (BC) were measured by automatic ambient air quality monitoring stations. Odds ratios and their corresponding 95% confidence intervals were estimated using conditional logistic regression adjusted for the potential confounding influence of weather variables (temperature, humidity and air pressure). **Results:** Statistically significant associations were observed between ED visits for asthma and 3-day lagged exposure to BC (OR = 3.23; CI = 1.05−9.95), and between ED visits for asthma with coexisting allergic rhinitis and reported-day lag exposure to NO2 (OR = 1.57; CI = 0.94−2.65), 2-day lag exposure to SO2 (OR = 1.97; CI = 1.02−3.80), and 3-day lag exposure to PM10 (OR = 2.38; CI = 1.17−4.84**). Conclusion**: Exposure to ambient air pollution in Užice region increases the risk of ED visits for asthma, particularly during the heating season.

**OP10:**

ODGOVOR ALVEOLO-KAPILARNE MEMBRANE NA KONTINUIRANU FIZIČKU AKTIVNOST KOD VRHUNSKIH SPORTISTA SA RAZLIČITOM ADAPTACIJOM RESPIRATORNOG SISTEMA

ALVEOLO-CAPILLARY MEMBRANE RESPONSE ON CONTINUOUS PHYSICAL ACTIVITY IN ELITE ATHLETES WITH VARIOUS ADAPTATIONS OF THE RESPIRATORY SYSTEM

Lazović Biljana ¹, Žugić Vladimir 2

***Correspondence to***

lazovic.biljana@gmail.com

1 Kliničko-bolnički centar Zemun, Beograd / University Clinical Center “Zemun”, Belgrade, Serbia

2 Klinika za pulmologiju, Klinički centar Srbije, Beograd / Clinic for Lung Disease, Clinical Center of Serbia, School of medicine, University of Belgrade, Serbia

*Sažetak*

Uvod: Difuzijski kapacitet pluća za ugljen monoksid (DLCO) definiše se kao količina gasa ugljen monoksida (CO) koja prolazi kroz alveolo-kapilarnu membranu tokom jednog minuta pri razlici pritiska od 1 kPa. Cilj: Ispitati uticaj redovne, programirane i kontrolisane specifične fizičke aktivnosti na odgovor alveolo-kapilarne membrane u miru, kod sportista i zdravih ljudi. Metodologija: 157 ispitanika muškog pola, su prema obimu nedeljne fizičke aktivnosti podeljeni u dve grupe: fizički aktivne (vrhunske sportiste) i fizički neaktivne (kontrolna grupa) ispitanike bez prisustva komorbiditeta. Grupa fizički aktivnih, jepodeljena u dve podgrupe: prva - vrhunski sportisti koji se bave aerobnom vrstom sporta, a druga, sportisti sa dominantnom anaerobnom vrstom sporta. Kontrolnu grupu činili su studenti Medicinskog fakulteta. Rezultati: Vrednosti izmerenog vitalnog kapaciteta (VC (l) i VC (%)) bile su statistički značajno više u grupi aerobnih sportista u odnosu na druge dve grupe (p<0.01, p<0.05), kao i forsiranog vitalnog kapaciteta u litrima (FVC (l)) (p<0.01). Difuzijski kapacitet pluća za ugljen monoksid (DLCO) bio je statistički značajno veći u grupi sportista. Totalni plućni kapacitet (TLC (l), %) (p<0.01, p<0.05, redom) i alveolarni volumen (VA (l), %) bio je statistički značajno veći u grupi aerobnih sportista u odnosu na druge dve grupe (p<0.01). Zaključak. Svi sportisti su imali veće disajne volumene i kapacitete, kao i DLCO u poređenju sa kontrolama, dok razlika u transfer faktoru nije uočena između ispitivanih grupa. Aerobna vrsta sporta dovodi do boljih rezultata plućnih parametara u odnosu na anaerobne.

***Ključne reči***

difuzijski kapacitet pluća, respiratorni sistem, disajni volumeni i kapaciteti, vrhunski sportisti, vrsta sporta

*Abstract*

**Introduction:** The diffusion capacity of the lung for carbon monoxide (DLCO) is defined as the amount of gas of carbon monoxide (CO) passing through the alveolar-capillary membrane in the course of one minute at a pressure of 1 kPa. **Aims:** To investigate the effect of regular, programmed and controlled physical activity on a specific response alveolar-capillary membrane in the rest in athletes and sedentary controls. **Methods**: A total of 157 male respondents, who, according to the volume of weekly physical activity divided into two groups: physically active (top athletes) and physically inactive (control) examinees without the presence of comorbidity. A group of elite athletes consisted of athletes who according to the type of sport activities are divided into two groups: aerobic and anaerobic. The control group consisted of Medical school students. **Results:** Vital capacity (VC (l) i VC (%)) were significantly higher in the group of aerobic athletes compared to the other two groups (p<0.01, p<0.05, randomly) as well as values of forced vital capacity in liters (FVC (l)) (p <0.01). DLCO was significantly higher in group of athletes. Total lung capacity (TLC (l), %) (p<0.01, p<0.05, randomly) and alveolar volume (VA (l), %) was significantly higher in the group aerobic athlete in relation to the other two groups (p <0.01). **Conclusion:** All athletes had higher respiratory parameters and DLCO compared to controls, while no difference in transfer factor was observed between the studied groups. Aerobic sports lead to better pulmonary parameters than anaerobic ones.

***Key words:***

lung diffusion capacity, respiratory system, respiraotory volumes and capacities, elite athletes, type of sport

**OP11:**

CISTIČNA BOLEST PLUĆA KAO MANIFESTACIJA PRIMARNOG SJOGRENOVOG SINDROMA – PRIKAZ SLUČAJA

CYSTIC LUNG DISEASE AS A MANIFESTATION OF PRIMARY SJOGREN’S SYNDROME - A CASE REPORT

Mišković Rada1,2, Plavšić Aleksandra 1,2, Stojanović Maja 1,2, Perić Popadić Aleksandra 1,2, Tomić Spirić Vesna 1,2, Bonači Nikolić Branka 1,2

***Correspondence to***

[rada\_delic@hotmail.com](mailto:rada_delic@hotmail.com)

1 Klinički Centar Srbije, Klinika za alergologiju i imunologiju / Clinical Center of Serbia, Clinic of Allergy and Immunology;

2 Medicinski fakultet Univerziteta u Beogradu / ²Faculty of Medicine, University of Belgrade

*Sažetak*

**Uvod**: Sjogrenov sindrom (SS) je multisistemsko autoimuno obolenje koje dominantno zahvata egzokrine žlezde. Najčešće plućne manifestacije u SS su limfoidna intersticijska pneumonia (LIP) i folikularni bronhiolitis. Premda se na HRCT kod ovih pacijenata najčešće opisuju centrilobularni noduli i opaciteti tipa mlečnog stakla, moguća je i pojava cističnih promena. **Cilj i metod**: Prikazaćemo slučaj cističnog oblika LIP kod pacijenta sa primarnim Sjogrenovim sindromom. Prikaz slučaja: Muškarac starosti 26 godina, kome je u 19-oj godini života postavljena dijagnoza primarnog SS primljen je u Kliniku za alergologiju i imunologiju Kliničkoc Centra Srbije zbog razvoja progresivne dispnee, izraženog zamaranja i febrilnosti. U laboratorijskim analizama izraženi markeri zapaljenja, hipergamaglobulinemija, visokopozitivan RF, anti-SSA i anti-SSB At. Funkcionalno ispitivanje pluća pokazalo je restriktivni poremećaj ventilacije (FVC 65% od previđenog) i redukovan difuzioni kapacitet pluća za CO (DLco 67% od predviđenog). Nije bilo ehokardiografskih znakova plućne hipertenzije.Učinjeni MSCT grudnog koša pokazao je tankozidne ciste apikalno i subpleuralno obostrano, područje konsolidacije plućnog parenhima posterobazalno sa leve strane, i obostrani manji pleuralni izliv. Lečen je pulsnom glikokortikoidnom terapijom (metil-prednizolon 500mg/dnevno tokom 3 dana), nakon čega je nastavljena peroralna terapija prednizonom (inicijalno 1mg/kgTM). Primenjenom terapijom ostvaren je povoljan klinički odgovor. Ponovljeni MSCT grudnog koša nakon četiri meseca pokazuje potpunu regresiju zona konsolidacije plućnog parenhima uz perzistenciju tankozidnih cisti. **Zaključak**: Kod pacijenata sa difuznim cističnim promenama na plućima treba razmotriti mogućnost Sjogrenovog sindroma.

*Abstract*

**Introduction:** Sjogren’s syndrome (SS) is a multisystem autoimmune disease that predominantly affects exocrine glands. The most common pulmonary manifestations in SS are lymphoid interstitial pneumonia (LIP) and follicular bronchiolitis. Centrilobular nodules and ground- glass attenuation are commonly described HRCT finding in these patients, but cystic changes can also occur. **The aim and method:** We report a case of cystic form of LIP in a patient with primary Sjogren’s syndrome. Case report: A 26-year-old male patient who was diagnosed with primary SS at age 19 was admitted to the Allergy and Immunology Clinic for progressive shortness of breath, severe fatigue, and fever. Laboratory analyzes revealed elevated markers of inflammation, hypergammaglobulinemia, highly-positive RF, anti-SSA and anti-SSB Abs. Pulmonary function tests showed restrictive ventilatory pattern (FVC 65% predicted) and reduced lung diffusion capacity for CO (DLco 67% predicted). There were no signs of pulmonary hypertension on echocardiography. A chest MSCT showed apical and subpleural bilateral thin-walled cysts, areas of ​​consolidation of pulmonary parenchyma posterobasally to the left, and minor pleural effusion bilaterally. He was treated with pulse glucocorticoid therapy (methyl-prednisolone 500 mg/daily for 3 days) after which oral prednisone therapy was continued (initially 1mg / kg BW). A favorable clinical response has been achieved. Repeated chest MSCT after four months showed complete resolution of lung parenchyma consolidation with the persistence of thin-walled cysts**. Conclusion**: Sjogren’s syndrome should be considered in patients with diffuse cystic lung changes.

**OP12:**

PLUĆNA EMBOLIJA U SISTEMSKOM ERITEMSKOM LUPUSU-PRIKAZ SLUČAJA

PULMONARY EMBOLISM IN A PATIENT WITH SYSTEMIC LUPUS ERYTHEMATOSUS- A CASE REPORT

Plavšić Aleksandra 1,2, Aranđelović Snežana 1,2, Dimitrijević Milan 1, Mišković Rada 1,2, Tomić Spirić Vesna 1, Perić Popadić Aleksandra 1

***Correspondence to***

sandrony@yahoo.com, oralna prezentacija

1 Klinika za alergologiju i imunologiju, Klinički Centar Srbije / Clinic of Allergy and Immunology, Clinical Centre of Serbia

2 Medicinski fakultet, Univerzitet u Beogradu / School of Medicine, University of Belgrade

*Sažetak*

**Uvod:** sistemski eritemski lupus (SEL) je autoimunsko sistemsko oboljenje koje karakteriše produkcija autoantitela, heterogena klinička prezentacija i multisistemska inflamacija. Plućne manifestacije i komplikacije u vidu pleuritisa, intersticijalne bolesti pluća, plućne arterijske hipertenzije, difuzne alveolarne hemoragije, infekcija, plućna embolija (PE) i druge se javljaju kod 25 do 75% pacijenata i mogu biti blage do životno ugrožavajuće. **Prikaz slučaja**: pacijentkinja starosti 40 godina, nepušač, februara 2017. godine nakon ekstrakcije zuba razvija slabost, malaksalost, povišenu telesnu temperaturu. Hospitalno lečena u KBC Zemun, gde je verifikovana leukopenija sa limfopenijom, hepatosplenomegalija, limfadenopatija aksila, pleuralni izliv levo, efuzija perikarda. U imunološkim analizama + ANA, + SSA, + dsDNA, +Sm, snižene C3 i C4 komponenta komplementa. Uz konsultaciju imunologa uključena glikokortikoidna terapija nakon čega postaje afebrilna. Prevedena na Kliniku za alergologiju i imunologiju Kliničkog Centra Srbije radi daljeg ispitivanja pod sumnjom na SEL. U tegobama slabost, malaksalost, bolovi u grudima. U analizama na prijemu limfopenija, zapaljenski sindrom, povišen D- dimer, povišeni AST, ALT, ALP, GGT, LDH, trigliceridi. Ubrzo po prijemu, zbog peristentnog bola u grudima, uz povišen D-dimer, uredan EKG nalaz postavljena sumnja na PE. Urađena angiografija plućne arterije je potvrdila da se radi o submasivnoj PE.Ultrazvukom srca utvrđena uvećana desna komora, TR 1+, SPDK 30mmHg. Isključena duboka venska tromboza. Lečena niskomolekularnih heparinom, a zatim oralnom antikoagulantnom terapijom, uz nastavak glikokortikoidne terapije. Daljim ispitivanjem potvrđena dijagnoza SEL. Nisu utvrdjena antifosfolipidna antitela. **Zaključa**k: kod pacijenta sa SEL hronična, sistemska inflamacija nosi određeni rizik za nastanak PE i treba je naročito razmatrati u aktivnoj fazi bolesti.

*Abstract*

**Introduction:** systemic lupus erythematosus ( SLE) is an autoimmune disease characterized by production of autoantibodies, heterogeneity in clinical presentation and mulitisystemic inflammation. Pulmonary manifestations and complications include pleural effusions, interstitial lung disease, pulmonary arterial hypertension, diffuse alveolar hemorrhage, pulmonary embolism (PE) are present in 25 to 75% cases and can range in severity from mild to life-threatening. **Case report:** a 40-year old female patient, non smoker, developed weakness, malaise and fever after tooth extraction. She was admitted at the Clinical Hospital Center Zemun, where leukopenia with lymphopenia was seen, as well as hepatosplenomegaly, axillary lymphadenopathy, small pleural effusion in left lobe, pericardial effusion. Immunological tests showed + ANA, + SSA, + dsDNA,+ Sm, low levels of C3 and C4. In a cosnultation with immunologist,corticosteroid therapy was started and patient became afebrile. Then she was admitted at the Clinic of Allergy and Immunology, Clinical Centre of Serbia, due to further examinations for SEL. She presented with weakness and chest pain. Laboratory tests showed lymphopenia, elevated inflammatory markers, elevated D- dimer, AST, ALT, ALP, GGT, LDH, triglycerides. Shortly after admission, due to persistent chest pain and elevated D- dimer, with normal ECG, PE was suspected. The angiography of pulmonary vessels showed submassive PE.A heart ultrasound revealed large right ventricle, tricuspid regurgitation 1+ and  right ventricular systolic pressure 30mmHg. There was no deep vein thrombosis. The patient was treated with anticoagulants and corticosteroids. Further examinations confirmed diagnosis of SEL.Antiphospholipid antibodies were not detected. **Conclusion**: patients with SLE have chronic inflammation that present certain risk for development of PE and should be considered especially in those with active disease.

**OP13:**

DEPRESIVNI I ANKSIOZNI SIMPTOMI KOD BOLESNIKA SA HRONIČNOM OPSTRUKTIVNOM BOLESTI PLUĆA

DEPRESSION AND ANXETY SYMPTOMS IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE

Samardžić Ana, Nagorni Obradović Ljudmila, Cvetković Snežana, Vujić Tatjana, Grbić Andrijana

Klinika za pulmologiju Klinički centar Srbije,

***Correspondence to***

anasamardzic88@gmail.com

*Sažetak*

**Uvod**: Hronična opstruktivna bolest pluća (HOBP) karakteriše hronično ograničenje protoka vazduha u disajnim putevima koje nije u potpunosti reverzibilno. Anksioznost i depresija su dva veoma česta i nedovoljno prepoznata poremećaja kod hronične opstruktivne bolesti pluća. **Cilj** istraživanja je povezanost učestalosti anksioznih i depresivnih simptoma kod obolelih od HOBP i udruženost emocionalnih poremećaja sa demografskim i karakteristikama pulmološkog stausa ispitanika **Metodologija:** Studija preseka je sprovedena u periodu od aprila do avgusta 2019. godine.Uključeno je 56 odraslih osoba sa dijagnozom HOBP, koje su lečene u Klinici za pulmologiju Kliničkog centra Srbije. Kliničke i demografske karakteristike obolelih praćene su putem upitnika. Afektivni status ispitanika je ocenjivan putem skala: BDI (Bekova skala za procenu depresivnosti) i BAI ( Bekova skala za procenu anksioznosti). Rezultati: Prosečan skor na BDI iznosio je 18.28+10.37 (17.85% ispitanika je imao skor ­­>28), a na BAI iznosio je 16.33+9.27 (12.5% ispitanika imalo je skor > 30). Lošija ostvarena vrednost forsiranog ekspirijumskog volumena u prvoj sekundi (FEV1) pokazuje povezanost sa višim vrednostima na BDI (p= -0.347 ; p= 0.014) i na BAI (p= -0.325; p= 0.023). Studija je pokazala da je intenzitet simptoma anksioznosti i depresivnosti viši kod obolelih sa HOBP koji su imali duže lečenje. **Zaključak**: Simptomi ansioznosti i depresivnosti kod obolelih sa HOBP se još uvek slabije prepoznaju i nedovoljno leče.

*Abstract*

**Introduction:** Chronic obstructive pulmonary disease (COPD) is characterized by chronic air-flow limitation that is not completely reversibile. Two of the most common and undertreated comorbidities of COPD are anxiety and depression. **The aim** of this study was the assessment of symptoms of anxiety and depression in COPD patients and to evaluate its relation to demographic parameters and clinical characteristics of the sample. **Methodology**: The research included 56 COPD patients, treated at the Institute for Lung Diseases, Clinical Centre Serbia, from April to August 2019. Clinical and demographic data were assessed by questionnaire. To rate affective symptoms , Beck Depression Inventory (BDI) and Beck Anxiety Inventory (BAI). Results: Mean BDI score was 18.28 (SD=10.37) (17.85% subjects scored > 28)and mean BAI score was 16.33 (SD=9.27) (12.5% subjects scored >30). Lower value of forced expiratory volume in one second (FEV1) correlated with higher BDI score (p= -0.347 ; p= 0.014) and with higher BAI (p= -0.325; p= 0.023). Study has shown that incidence of anxiety and depression symptoms are highter in patients with longer treatment **Conclusion**: Symptoms of anxiety and depressive in COPD patients,procedures for routine screening in therapeutic protocols are not commonly used.

**OP14:**

WEGENEROVA GRANULOMATOZA INICIJALNO DIJAGNOSTIKOVANA KAO NEKONTROLISANA UMERENA PERZISTENTNA ASTMA - PRIKAZ SLUČAJA

WEGENER’S GRANULOMATOSIS INITIALLY DIAGNOSED AS UNCONTROLLED MODERATE PERSISTENT ASTHMA – A CASE REPORT

Topalović Marija1,3, Radović Milan2,3, Stanković Ivana1,3, Pejčić Tatjana, Bjelaković Marko1,3, Božanić Borislav1,3, Marinković Marija1,3

***Correspondence to***

majatop@gmail.com

1 Klinika za plućne bolesti, Klinički centar Niš / Clinic for Pulmonary Diseases, Clinical Center of Niš

2 Klinika za grudnu hirurgiju, Klinički Centar Niš / Clinic for Thoracic Surgery, Clinical Center of Niš,

3 Medicinski fakultet Univerziteta u Nišu / Faculty of Medicine, University of Niš

*Sažetak*

Wegener-ova granulomatoza je ANCA-pozitivni vaskulitis, koji karakteriše granulomatozna inflamacija gornjeg i donjeg respiratornog trakta uz fokalni nekrotizujući glomerulonefritis.

Pacijent muškog pola, star 54 godine hospitalizovan je u našoj ustanovi sa kliničkom slikom nekontrolisane umerene perzistentne astme, uz izraženu promuklost, povremene hemoptizije i torakalni bol. Pri prijemu bled, dispnoičan, orošen hladnim znojem, psihomotorno upadljiv, zauzima prinudan položaj. Na radiogramu grudnog koša uočava se zasenčen levi kostofrenični sinus, ddg pleuralni izliv/plak. U laboratorijskim analizama krvi registruje se povišen broj trombocita (403,0 x109/l) i serumskog CRP-a (59,9 mg/l), uz mikrohematuriju. Spirometrijski je prisutan ireverzibilni umereni opstruktivni poremećaj plućne ventilacije, uz negativan kutani prick test na inhalacione alergene. Muti-slajsna kompjuterizovana tomografija (MSCT) pluća verifikuje subpleuralne trakaste promene paravertebralno i posterobazalno obostrano, sa nekoliko nespecifičnih parenhimskih mikronodularnih promena. Fiberoptičkom bronhoskopijom nisu viđene patološke promene u bronhijalnom stablu. Video-asistiranom torakoskopijom (VATS) biopsirane su subpleuralne plućne promene, čija je histopatološka analiza dokazala nekrotizujući granulomatozni proces i vaskulitis po tipu Wegener-ove granulomatoze. Naknadno je registrovan visok titar perinuklearnih antineutrofilnih citoplazmatskih At (pANCA) >100 IU/ml, normalan titar cANCA antitela, hronična bubrežna insuficijencija I stepena i vazomotorni sinusitis. Lečenje je započeto peroralnim (PO) Prednisolon-om (1mg/kg PO 1×/dan) i Methotrexat-om (20mg PO 1x/sedmično), uz dugoročnu profilaksu Trimetoprim–sulfametoksazol-om (160/800mg PO 1×/dan).

Spektar MSCT nalaza na plućima kod Wegener-ove granulomatoze “imitira” mnoga patomorfološka stanja respiratornog sistema, što uz različit stepen zahvatanja bronhijalne sluzokože, često vodi u “dijagnostička lutanja”. Primena adekvatnih dijagnostičkih algoritama omogućava pravovremenu dijagnozu ove retke bolesti i u okolnostima kad je ista “klinički malo verovatna”.

***Ključne reči***

Wegenerova granulomatoza, vaskulitis, kompjuterizovana tomografija.

*Abstract*

Wegener’s granulomatosis is an ANCA-positive vasculitis characterized by granulomatous inflammation of the upper and lower respiratory tract and focal necrotizing glomerulonephritis.

A 54-year-old male with a clinical presentation of uncontrolled moderate persistent asthma, prominent hoarseness, occasional haemoptysis and chest pains was admitted. He was pale, dyspnoeic, diaphoretic, with a conspicuous psychomotor appearance, and in a forced position on admission. CXR revealed left costophrenic angle blunting, DDx pleural effusion/plaque. Increased platelet count (403,0x109/l), serum CRP levels (59,9mg/l) and microhematuria were registered. Spirometry revealed irreversible moderate airflow obstruction while the skin prick test for inhaled allergens was negative. Multi-Slice Computed Tomography (MSCT) of the lungs verified several subpleural band-like opacities in the paravertebral posterior basal regions bilaterally with several sporadic nonspecific micronodular opacities. Fiberoptic bronchoscopy showed no pathological findings in the bronchial tree. Biopsy of the subpleural formations by Video-Assisted Thoracoscopy (VATS) was performed. Histopathological examination revealed a necrotizing granulomatous process and vasculitis, the Wegener’s granulomatosis type. Subsequently, a high titer of perinuclear antineutrophil cytoplasmatic antibodies pANCA (> 100), a normal titer of cANCA, chronic renal failure stage 1 and vasomotor sinusitis were recorded. Treatment was initiated with oral (PO) Prednisolone (1mg/kg PO 1×/day) and Methotrexate (20mg PO 1x/week), with long-term prophylaxis of Trimethoprim–sulfamethoxazole (160/800mg PO 1×/day).

The spectrum of MSCT lung findings of Wegener’s granulomatosis “mimics” many pathomorphological respiratory conditions, which, with varying degrees of involvement of the bronchial mucosa, often leads to “diagnostic wanderings”. The use of adequate diagnostic algorithms enables timely diagnosis of this rare disease even when it is “clinically unlikely”.

***Key words:***

Wegener’s granulomatosis, vasculitis, computed tomography.

**OP15:**

UTICAJ PUŠAČKOG STAŽA NA PROCENU HRONIČNE OPSTRUKTIVNE BOLESTI PLUĆA

THE INFLUENCE OF SMOKING DURATION ON THE ASSESSMENT OF CHRONIC OBSTRUCTIVE LUNG DISEASE

Tot Vereš Kristina, Ilić Miroslav, Jankov Matić Jelena, Somborac Stevan

***Correspondence to***

[krisztinatotveres@gmail.com](mailto:krisztinatotveres@gmail.com)

1 Univerzitet u Novom Sadu, Medicinski Fakultet Novi Sad / University of Novi Sad, Faculty of Medicine Novi Sad

2 Institut za plućne bolesti Vojvodine / Institute for Pulmonary Diseases of Vojvodina

*Sažetak*

**Uvod:** Hronična opstruktivna bolest pluća je jedna od najčešćih hroničnih bolesti i važan je uzrok morbiditeta i mortaliteta u svetu. Iako postoje i drugi faktori rizika, 95% slučajeva je direktna posledica pušenja. Kod pušača i bivših pušača dokazana je jača povezanost pojedinih parametara hronične opstruktivne bolesti pluća sa dužinom pušačkog staža u odnosu na broj popušenih cigareta dnevno i kompozitnog indeksa paklo/godina. Cilj rada: Utvrditi korelaciju dužine pušačkog staža i paklo/godina sa mortalitetom od hronične opstruktivne bolesti pluća, sa učestalošću egzacerbacije hronične opstruktivne bolesti pluća i težinom bolesti. **Metodologija**: Pacijenti sa potvrđenom dijagnozom hronične opstruktivne bolesti pluća praćeni su godinu dana, beležen je broj egzacerbacija i smrtni ishod. Kod svih bolesnika su beleženi osnovni demografski podaci, podaci o pušačkim navikama. Svakom ispitaniku je rađeno ispitivanje plućne funkcije, određivana saturacija hemoglobina kiseonikom i puls, izvođen je šestominutni test, popunjavani su CAT i mMRC upitnici. Podaci istraživanja su se unosili u kompjutersku bazu podataka. Određivan je koeficijent korelacije između prikupljenih varijabli. Razlike su smatrane statistički značajnim kada je p < 0,05. Rezultati: Korelacija dužine pušačkog staža (izražena koeficijentom korelacije) je bila značajnija u odnosu napaklo/godina kod svihispitivanih varijabli sa statističkom signifikantnošću kod težinebolesti i procenta FEV1. Multiplom logističkom regresionom analizom dužina pušačkog staža se pokazala kao nezavisni factor rizika za težinu bolesti u odnosu na starost. **Zaključak**: Dužina pušačkog staža pruža bolju procenu težine hronične opstruktivne bolesti pluća kao i procenu rizika od egzacerbacije i mortliteta od iste u poređenju sa kompozitnim indeksom paklo/godina.

*Abstract*

**Introduction:** Chronic obstructive pulmonary disease is one of the most common chronic diseases and is an important cause of morbidity and mortality in the world. Although there are other risk factors, 95% of cases are a direct consequence of smoking. In smokers and ex-smokers, a stronger correlation between the parameters of chronic obstructive pulmonary disease and the smoking duration has been demonstrated in relation to the number of cigarettes smoked per day and the composite index of pack / year. **Goal:** Determine correlation of smoking duration and pack / year with mortality from chronic obstructive pulmonary disease, incidence of exacerbation, and severity of disease. **Methodology**: Patients with a confirmed diagnosis of chronic obstructive pulmonary disease were followed up for one year, the number of exacerbations and death reported. Basic demographic data, smoking habits data were recorded, a pulmonary function test was performed, hemoglobin oxygen saturation and pulse were determined, a six-minute test was performed, CAT and mMRC questionnaires were completed. The survey data were entered into a computer database. The correlation coefficient between the collected variables was determined. Differences were considered statistically significant when p <0.05. Results: The correlation of smoking duration was more significant compared to pack / year for all variables tested, with statistical significance for disease severity and FEV1 percentage. Multiple logistic regression analyzes showed that smoking duration was an independent risk factor for severity in relation to age**. Conclusion**: Smoking duration provides a better estimate of disease severity, risk of exacerbation and mortality from the same disease compared with the pack/ year composite index.