



# Alergijski bronhioloalveolitis – hipersenzitivni pneumonitis – prikaz slučaja

## Allergic bronchoalveolitis - hypersensitivity pneumonitis – case report

Velina Petković

Zastava Zavod za zdravstvenu zaštitu radnika Kragujevac

Institute for Health Protection of Workers "Zastava", Kragujevac

### Apstrakt

Alergijski bronhioloalveolitis je imunološko zapaljenje koje zahvata plućni intersticijum, terminalne bronhiole i alveoli, usled preosetljivosti na antigene organske prašine biljnog i životinjskog porekla. Sinonimi za ovo oboljenje su hipersenzitivni pneumonitis, ekstrinzički alergijski alveolit. Imunopatogeneza hipersenzitivnog pneumonitisa se odvija tako što antigeni (termofilne aktinomycete, proteini ptica, proteini poreklom od svinja, mikrospore faeni, itd...) bivaju udahnute u disajne organe gde ih fagocituju alveolarni makrofagi, a ovi aktivirani luče mnoge citokine. Aktiviraju se i T limfociti delujući na B limfocite, a ovi luče antitela klase IgG, IgM i IgA. Ova antitela se nalaze u 50 % obolelih, ali nisu znak bolesti, već samo ekspozicije. Bolesnici imaju febrilnost, groznicu, kašalj, dispneju i leukocitozu.

*Prikaz slučaja:* Prikazujemo bolesnika starog 47 godina koji dolazi zbog povišene telesne temperature (38,9° C), malaksalosti, kašlja, otežanog disanja i gušenja. Ovakve epizode je imao nekoliko puta u toku godine. Objektivnim pregledom utvrđeno je da je febrilan, auskultatorno na plućima su se čuli niskotonski zvižduci. Na radiografiji pluća nalazila su se sitna difuzna zasenčenja, više bazalno, bez uvećanja hilusnih limfnih žlezda.

Funkcionalni testovi su pokazivali smanjenje vitalnog kapaciteta sa manjom redukcijom FEV1. Rutinske laboratorijske analize ukazale su na umereno ubrzanu sedimentaciju (SE :45 mm/ prvi sat), leukocitozu (13,5) sa limfocitozom od 63 %. Pošto pacijent nije reagovao na klasičnu antibiotsku terapiju za pneumoniju kako je započeto lečenje, urađeno je alergološko testiranje na inhalatorne alergene, gde je postojala senzibilizacija na polene trava i dat je predlog za imunološko ispitivanje zbog podatka iz anamneze da se iz hobija bavi gajenjem golubova. Nakon hospitalizacije na grudnom odeljenju i dodatnih ispitivanja (povišeni IgG, u bronhoalveolarnom ispirku su dominirali limfociti na račun makrofaga), uspostavljena je dijagnoza alergijskog bronhioloalveolitisa. Pacijent je dobro odrađivao na kortikosteroidnu terapiju, a dat je savet da prekine sa gajenjem golubova.

*Zaključak:* Dobro uzeta lična anamneza, radna anamneza (hobi), ubrzan sedimentacija, leukocitoza, povećanje IgG u serumu, gušenje bez postojanja insuficijencije i smanjenje tegoba nakon prekida ekspoziciji alergogenim materijama, upućuju na dijagnozu alergijskog bronhioloalveolitisa. Ovo je naročito značajno, ukoliko su pacijenti u radnoj sredini izloženi prašini biljnog i životinjskog porekla, jer je alergijski bronhioloalveolitis na listi profesionalnih bolesti.

### Abstract

Allergic bronchioloalveolitis is an immune inflammation that affects the pulmonary interstitium, terminal bronchioles and alveoli due to hypersensitivity to antigens of organic dust of plant and animal origin. Synonyms for this disease are hypersensitive pneumonitis, extrinsic allergic alveolitis. The immunopathogenesis of hypersensitivity pneumonitis takes place by antigens (thermophilic actinomycetes, avian proteins, proteins derived from pigs, microspores, etc.) are inhaled into the respiratory organs where they are phagocytosed by alveolar macrophages, and these activated secrete many cytokines. T lymphocytes are also activated by acting on B lymphocytes, and these secrete IgG, IgM and IgA class antibodies. These antibodies are found in 50% of patients, but they are not a sign of the disease, but only exposure. Patients have fever, chills, cough, dyspnea and leukocytosis.

*Case report:* We present a 47-year-old patient who comes due to fever (38.9° C), malaise, cough, shortness of breath and suffocation. He had episodes like this several times during the year. An objective examination determined that he was febrile, and low-pitched whistles were heard on the lungs. On the radiography of the lungs, there were small diffuse shadows, more basal, without enlargement of the hilar lymph glands.

Functional tests showed a decrease in vital capacity with less reduction in FEV1. Routine laboratory analyzes indicated moderately accelerated sedimentation (SE: 45 mm / first hour), leukocytosis (13.5) with lymphocytosis of 63%. Since the patient did not respond to the classic antibiotic therapy for pneumonia as the treatment began, allergological testing for inhaled allergens was performed, where there was sensitization to grass pollens, and a proposal for immunological testing was given due to data from a history of pigeon breeding. After hospitalization in the thoracic department and additional examinations (elevated IgG, bronchoalveolar lavage was dominated by lymphocytes at the expense of macrophages), which contributed to the diagnosis of allergic bronchioloalveolitis. The patient responded well to corticosteroid therapy and was advised to stop breeding pigeons.

*Conclusion:* A well-taken personal history, work history (hobby), accelerated sedimentation, leukocytosis, increased serum IgG, suffocation without insufficiency and reduction of discomfort after cessation of exposure to allergenic substances suggest the diagnosis of allergic bronchioloalveolitis. This is especially important if patients are exposed to dust of plant and animal origin in the work environment. because allergic bronchioloalveolitis is on the list of occupational diseases.