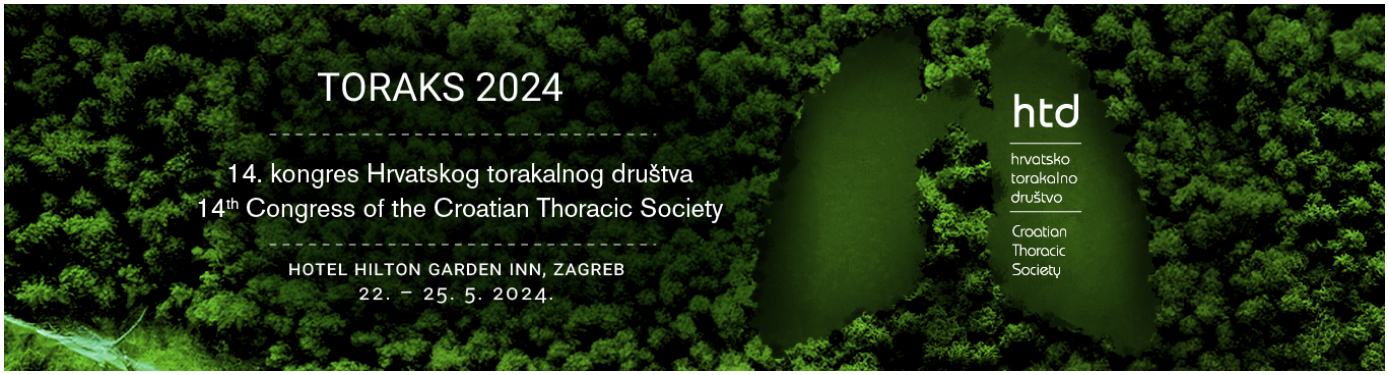


NSAID-EXACERBATED RESPIRATORY DISEASE (N-ERD) - A CASE REPORT

DODER F.[2], Marković I.[1], Božan M.[1], Vukičević Lazarević V.[1], Barišić J.[1]

[1] Specijalna bolnica za plućne bolesti, Zagreb, Croatia
Alergologija i klinička imunologija

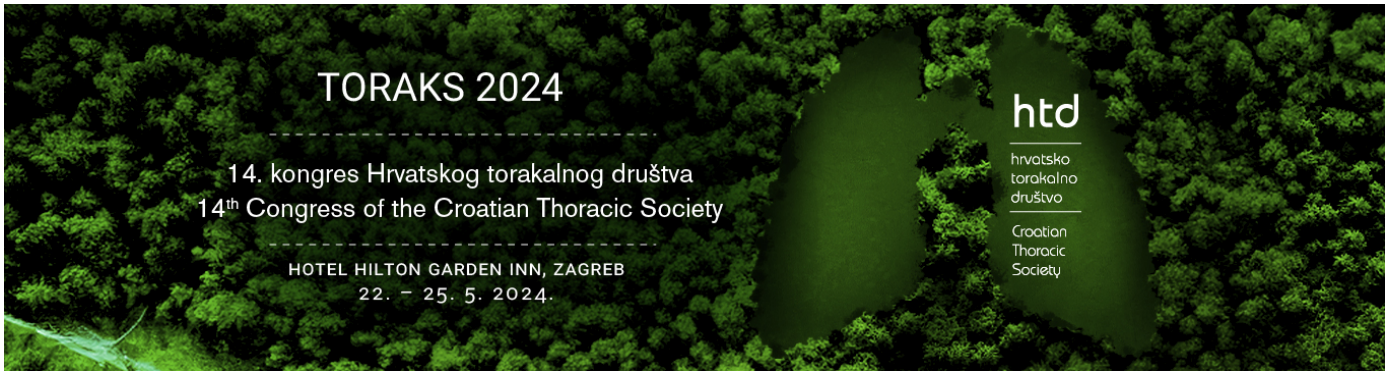
[2] Specijalna bolnica za plućne bolesti, Zagreb, Croatia
Pulmologija

Background:

Non steroidal anti-inflammatory drug (NSAID)-exacerbated respiratory disease (N- ERD) is a respiratory tract condition that occurs in patients suffering from asthma and chronic rhinosinusitis with nasal polyposis, who also develop acute upper and/or lower respiratory tract symptoms following the ingestion of cyclooxygenase 1 (COX-1)-inhibiting NSAIDs, most often acetylsalicylic acid. These reactions are characterized as pseudoallergic reactions since they are not immunoglobulin E mediated.

Conclusion:

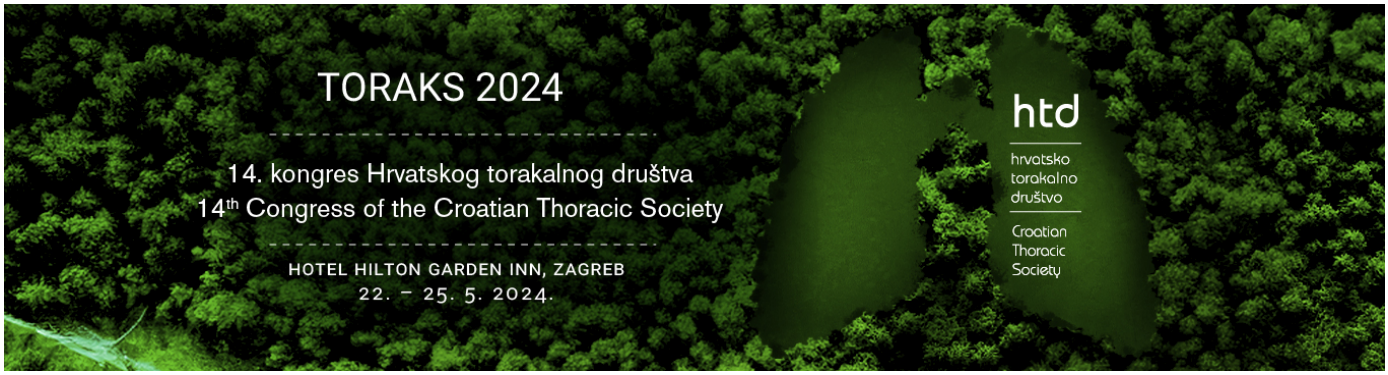
Non steroidal anti-inflammatory drug (NSAID)-exacerbated respiratory disease (N- ERD) is a



respiratory tract condition that occurs in patients suffering from asthma and chronic rhinosinusitis with nasal polyposis, who also develop acute upper and/or lower respiratory tract symptoms following the ingestion of cyclooxygenase 1 (COX-1)-inhibiting NSAIDs, most often acetylsalicylic acid. These reactions are characterized as pseudoallergic reactions since they are not immunoglobulin E mediated

Case:

A 45-years-old woman was referred to allergist due to suspected systemic allergic reaction to acetylsalicylic acid (AA). Initially, she was observed in emergency department after taking AA for the first time in her life. She felt immidiate dyspnea followed by wheezing and dry cough approximtely 30 minutes after taking AA. Her vital signs, initial laboratory and radiographic investigations were normal. She received glucocorticoid, antihistamine agent and supportive therapy, with resolution of all symptoms after therapy and observation. Family history was positive for nasal polyposis, her medical history included allergic rhinitis and recurrent bronchitis, but she did not take any chronic therapy. Pulmonary function test were in the normal range with negative bronchodilation test and elevated FeNO (FEV1 99%, FVC 117%, FEV1/FVC 0.72, FeNO 74 ppb). Also prick test to nutritive and inhaled allergens was negative. An allergic testing was initiated. Firstly we performed testing to exclude allergic reaction to selective Cox-2 inhibitors using etoricoxib in a dose od 90mg which was negative. After few weeks we performed intranasal challenge test using ketorolak. After adequate preparation and signing of informed consent, an intranasal bronchoconstritor ketorolak was given to a patient via nasal spray and after every two puffs spirometry was performed. Initial results indicated FEV1 of 82% (2.43L), patient was symptomless. After 120 minutes of ketorolak inhalation patient developed wheezing with dry cough with small urticarial spot on her forehead. The FEV1 fall to 33% (0.98L). She recieved intravenuos corticosteroid, antihistamine and inhaled bronhodilator. The FEV1 after therapy was 71% (2.22L). These results confirmed the diagnosis



of N-ERD in this patient.