

SAŽETAK - SUMMARY

Post infectious bronchiolitis obliterans in children: Long term follow-up

Post infektivni bronhiolitis obliterans: Dugotrajno praćenje

Tugba Sismanlar Eyuboglu<sup>1</sup>, Tugba Ramaslı Gursoy<sup>2</sup>, Ayse Tana Aslan<sup>2</sup>, Zeynep Reyhan Onay<sup>2</sup>, Melih Hangul<sup>3</sup>, Busra Sultan Kibar<sup>4</sup>, Sevgi Pekcan<sup>4</sup>, Mehmet Kose<sup>3</sup>, Bahar Gokturk<sup>5</sup>

<sup>1</sup>Dr Sami Ulus Maternity and Children Training and Research Hospital, Ankara, Turkey

<sup>2</sup>Gazi University Faculty of Medicine, Department of Pediatric Pulmonology, Ankara, Turkey

<sup>3</sup>Erciyes University Faculty of Medicine, Department of Pediatric Pulmonology, Kayseri, Turkey

<sup>4</sup>Necmettin Erbakan University Meram Medicine Faculty, Department of Pediatric Pulmonology, Konya, Turkey

<sup>5</sup>Baskent University Faculty of Medicine, Department of Pediatric Allergy, Konya, Turkey

**Summary Objective:** Post infectious bronchiolitis obliterans (PIBO) is a chronic lung disease which is caused by lower respiratory tract infections (LRTI) especially in children who are under 3 years of age. *Adenovirus* is the major pathogen in the etiology. There are no clinical controlled trials for treatment. Long term follow up varies. We aimed to investigate long term follow-up results of PIBO patients.

**Material and methods:** We analyzed the long term follow up results of PIBO patients in three pediatric pulmonology centers. Demographic features, clinical, laboratory findings, treatments, treatment results were evaluated.

**Results:** In ten-year period 70 patients were followed with diagnosis of PIBO in three pediatric pulmonology centers. Mean age of patients was  $9.24 \pm 5.76$  years and 51 (72%) of them were male. Mean age of patients at the diagnosis was  $3.96 \pm 3.85$  years and 23 (32%) of them had family consanguinity. Pathogen was detected in 19 patients and *adenovirus* was the major pathogen which was detected in 9 patients. Oxygen supplementation was present in 26 patients at the time of LTRI.

Pulse steroid was given only in 5 patients, oral prednisolone in 30 patients, azithromycin in 10 patients, inhaled steroid in 36 patients and IVIG in 8 patients who had accompanying immunodeficiency.

Mean FEV1 was  $56.99 \pm 21.73$  before treatment and  $69.26 \pm 21.45$  after treatment. Mean FVC was  $61.60 \pm 21.47$  before treatment and  $71.61 \pm 20.40$  was after treatment. Mean MEF25-75 was  $46.39 \pm 24.47$  and  $59.11 \pm 23.92$  after treatment. There were statistically significant differences in FEV1, FVC, MEF25-75 between before and after treatments ( $p < 0.05$ ).

Mean body mass index (BMI) was  $16.67 \pm 3.55$  before treatment and  $16.87 \pm 3.44$  after treatment and there was no statistically significant difference ( $p > 0.05$ ).

FEV1, FVC, MEF25-75 and BMI had statistically significant differences before and after treatments in patients who was given oral and/or inhaled steroid treatments ( $p < 0.05$ ).

**Conclusion:** Although there is no definitive treatment recommendations for PIBO, steroid seems to be useful in children. Clinical controlled trials are needed for definitive treatment recommendations.

**Acknowledgement**

This publication has been funded by ENTÉR-child (COST Action CA16125); ENTÉR-child is funded by COST through European Framework Horizon 2020 support

Primljeno/Received: 19.02.2019..

Prihvaćeno/Accepted: 27.03.2019.

**Correspondance to:**

Tugba Sismanlar Eyuboglu  
Dr Sami Ulus Maternity and Children Training and Research Hospital  
Ankara  
Turkey