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

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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 ± 5.76 years and 51 (72%) of them were male. Mean age of patients at the diagnosis was 3.96 ± 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 ± 21.73 before treatment and 69.26 ± 21.45 after treatment. Mean FVC was 61.60 ± 21.47 before treatment and 71.61 ± 20.40 after treatment. Mean MEF25-75 was 46.39 ± 24.47 and 59.11 ± 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 ± 3.55 before treatment and 16.87 ± 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.

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