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EDITORIAL

Post-infectious bronchiolitis obliterans in children: is general quality of life the right measure?☆,☆☆

Bronquiolite obliterante pós-infecciosa em crianças: a qualidade de vida geral é a medida certa?

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In recent years, the long-term survival of many chronic progressive pulmonary diseases has improved; with such progress, the attention has also shifted from strictly focusing on physiological measurements of lung function and other physical characteristics to incorporating quality of life (QOL) assessments, with the latter reflecting a degree of interdependency with the severity of the respiratory condition. For example, in patients with cystic fibrosis (CF), factors such as body mass index, a correlate of nutritional status, and FEV1, a reporter of overall expiratory flow limitation and bronchial involvement, have emerged as important factors contributing to QOL.[1] Similarly, the frequency of hospital admissions for pulmonary exacerbations, sleep quality, adherence, depression, and physical activity measures are also major contributors to QOL ratings in CF.[2–7] As a corollary, reduced QOL is reported by children with non-CF bronchiectatic diseases[8] and disease-specific QOL tools have been developed for assessing asthmatic children,[9–11] further reinforcing the importance of a comprehensive evaluation that attests to integrative functioning in the context of chronic illness, while also potentially serving as an objective follow-up and longitudinal monitoring instrument.[12] In this context, Sarria et al. now report their QOL findings among 34 children suffering from post-infectious bronchiolitis obliterans (PIBO) compared to 34 controls.[13] PIBO is a frequently irreversible obstructive lung disease characterized by subepithelial inflammation and fibrotic narrowing of the smaller airways following a lower respiratory tract infection during early childhood. Despite its typical history and clinical examination, the diagnosis is characteristically confirmed by bioptic histopathological assessments along with pertinent radiological findings consisting of heterogeneous vascular perfusion alterations along with air trapping with or without bronchiectasis.[14,15] Indeed, since lung function tests are either not feasible or require specialized settings in young children, implementation of such approaches for the diagnosis of PIBO is woefully inadequate at best.[16–20] As would be anticipated from patients suffering from chronic obstructive respiratory symptoms that are likely to affect their capacity for physical activity, as well as other functions during day and night,[21] the overall QOL was reduced in PIBO patients in both the health-related and school-related domains of the well-validated instrument that was used.[22] Thus, the

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findings attest to the significant impact that this relatively rare, yet important diagnostic entity imposes on living conditions. Some limitations to this study deserve comment, to instigate future research. First, it would have been of interest to explore potential associations between available spirometric measurements and QOL measures, Secondly, the inclusion of a physical activity test such as the six-minute walk test (6-MWT) would be highly desirable, as would be the evaluation with overnight polysomnography (PSG); the potential independent contributions of 6-MWT performance and PSG findings to QOL could provide further insights as to the major determinants of QOL. Finally, and as raised by the investigators, future longitudinal periodic and concurrent assessments of clinical, radiological, functional, and QOL measures may shed some light as to the potentially important value of assessing QOL as a readily available, yet easy to obtain score that provides insights into disease severity, response to therapy, and prognostic tracking.

In summary and unsurprisingly, similar to many chronic respiratory diseases, PIBO adversely affects QOL in children. This interesting article should be a reminder to all of us pediatricians that the term ''breath of life'' is meaningful and should not be taken for granted.

Conflicts of interest

The author declares no conflicts of interest.

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