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EDITORIAL

The *fatum* of preterm lungs: Every week counts



The fact that low pulmonary function in early life persists with time in many individuals is well described in the literature. This persistency seems to be the rule among children and adolescents born preterm. The present issue of A&I contains yet another study¹ offering additional evidence on this issue. A mixed group of Brazilian researches coming from the neonatal and Allergy fields followed up a group of 84 preterm babies born at 31 weeks of gestation and found that both the prevalence of current asthma and severe asthma was significantly higher in those children at the age of 6–14 years as compared to the general population of children of the same age. Additionally, other allergic diseases such as flexural eczema and rhinitis were also significantly more frequent. Oxygen dependency during the neonatal period was a marker of lower lung function.

As already said, this is not new and our own group has shown that lung function test yield significantly lower results in preterm as compared to term babies and especially when they suffered from bronchial dysplasia.^{2,3} However the authors add some interesting information within the lines of the paper. For instance, no association was found between symptoms of atopy in children or parents and low lung function in children, although sensitization among the children was quite high as compared to similar populations in the area [61% sensitization to *D. Peteronissinus*, vs. less than 40% in several studies].^{4,5} Apparently the pathways for asthma and atopy seem to be parallel in this population of children, i.e. independent from each other, one of them (shorter gestational age) being a risk factor and the other (atopy) being not; although the high prevalence of atopy might confound the association between this condition and low lung function. In their multivariate analysis only height at the study entry, wheezing in the past and need of oxygen during the first days of life are associated to altered lung function. The two factors are in fact related to each other as shown in the studies of own group quoted previously.^{2,3} On the other hand, a Finnish study found that preterm birth was not a risk factor for atopy and even protected against it. This might indicate that the pathway to asthma in preterm babies is different from that of atopy.⁶

The concept of an undeveloped or ill-developed lung leading to a life of poorer lung function, and maybe also to asthma and later COPD^{7,8} has been previously formulated^{7,8} and it is good to bring it up now in the present context. Preterm birth and bronchopulmonary dysplasia are probably the coarse extremes of a picture that is probably much more subtle and composed of very different brush strokes, in texture, size and colour, revealing a general impressionist picture framed in the paradigm of the early origins of the disease. This is why, following the results of a Swedish study,⁹ it can be said: “every week counts”.

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