Measurement of the interbronchial angle in acute viral bronchiolitis

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Abstract

Acute viral bronchiolitis (AVB) is the most common infection of the lower airways in children under 2 years of age. Attempts to determine the severity of the disease based on clinical and radiological manifestations are a major challenge. Measurements of the anatomy of the trachea, main bronchi and bronchioles are not limited to pure anthropometry, but are also useful for better knowledge and applicability in pulmonary physiology, thoracic surgery, anesthesiology and in the care of critically ill patients. This is a cross-sectional, retrospective study, which included all patients admitted to a tertiary hospital in the city of Porto Alegre, over a period of one year, with a diagnosis of AVB. The interbronchial angle (ITB) of these patients was measured and clinical and epidemiological characteristics were analyzed. A total of 425 patients were included, diagnosed with BVA by respiratory syncytial virus (RSV) confirmed by immunofluorescence. Most of these patients were male (59.5%) and the median age was 130 days, 91.11% of them required oxygen therapy through a nasal catheter, 3.3% used non-invasive ventilation (NIV) and 4% mechanical ventilation (MV) . Among the studied patients, we obtained only one death (0.2%). Those who required MV or NIV and support in an intensive care unit were considered serious. The mean ITB was lower for these patients than for less severe ones. It is concluded that the ABI has a correlation with the prognosis of patients with AVB and, after further studies, can be used as a severity score.

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Palavras-chave: interbronchial angle, viral bronchiolitis , bronchiolitis

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