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**Title:** Development of lung radiological findings of cystic fibrosis patients under 6 years old

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**Body:** Introduction: The pulmonary evaluation in children with Cystic fibrosis (CF) under 6 years old is limited and based on chest radiography. Neonatal screening (NS) is important for early diagnosis, however there are few studies on its impact on the progression of pulmonary infection-inflammation cycle. Objective: To evaluate development of radiological changes of CF in patients under 6 years old through Brasfield score and analyze its differences according to pulmonary colonization with *Pseudomonas aeruginosa* (PA) and *Staphylococcus aureus* sensitive to oxacilin (OSSA) and with the diagnose form, if by NS or not. Methods: It is a cross-sectional study that evaluated 254 chest radiographs of 67 patients who had done airway cultures as part of routine care. Statistical analysis was based on Kruskal Wallis test and with a significance level of 5%. Results: Approximately 35,8% of the radiographs showed Brasfield score below 21 points, compatible with potentially irreversible lung disease, and from four years old the average score was below this value. According to the increasing children ages, it has increased the average severity of linear opacities and nodular cystic lesions. NS was related to less severe radiographic changes. The cronic colonization by PA was associated with greater severity of radiographic findings. Conclusions: Radiographic evaluation of the chest was able to show the first lung changes of CF and identified the age group from which the changes became more pronounced. NS and prevention methods for chronic infection with PA seems to exert a protective effect on progression of lung disease in CF.