

Bronchiolitis Before and After the SARS-CoV2 Pandemic: Twelve Years of Experience in a Spanish Paediatric Hospital

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Abstract

Introduction: Acute bronchiolitis (AB) is the main cause of hospitalization in children under two years of age, with a regular seasonality, mostly due to the respiratory syncytial virus (RSV).

Objectives: To describe the epidemiology of bronchiolitis hospitalizations in our centre in the last twelve years, and analyse the changes in clinical characteristics, microbiology, and adverse outcomes during the SARS-CoV2 pandemic.

Methods: Observational study including patients admitted for bronchiolitis between April 2010 and December 2021 in a Spanish tertiary paediatric hospital. Relevant demographic, clinical, microbiological, and adverse outcome variables were collected in an anonymized database. The pandemic period (April 2020 to December 2021) was compared to 2010-2015 seasons using appropriate statistical tests.

Results: There were 2138 bronchiolitis admissions, with a mean of 195.6 per year between 2010-2019 and a 2–4-month peak between November and March. In the expected season of 2020, there was a 94.4% reduction of bronchiolitis hospitalizations, with only eleven cases admitted in the first year of the pandemic. Bronchiolitis cases increased from the summer of 2021 during a six-month long peak, reaching a total of 171 cases. Length of stay was significantly shorter during the pandemic, but no differences were found in clinical and microbiological characteristics or other adverse outcomes.

Conclusions: The SARS-CoV2 pandemic has modified the seasonality of bronchiolitis hospitalizations, with a dramatic decrease in cases during the expected season of 2020-2021, and an extemporaneous summer-autumn peak in 2021 with longer duration but similar patient characteristics and risk factors.

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