

## Control of Asthma in Children with Asthma during the Containment Period following the Covid-19 Pandemic

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**Abstract :** Background: Asthma is the most common chronic disease in children, affecting nearly 235 million people worldwide (OMS). In Morocco, asthma is much more common in children than in adults; the prevalence rate in children between 13 and 14 years of age is 20%.<sup>1</sup> This pathology is marked by high morbidity, a significant impact on the quality of life and development of children.<sup>2</sup> This requires a rigorous management strategy in order to achieve clinical control and reduce any risk to the patient.<sup>3</sup> A search for aggravating factors is mandatory if a child has difficulty maintaining good asthma control. The objective of the present study is to describe asthma control during this confinement period in children aged 4 to 11 years followed by a pneumo-paediatic consultation. For children whose asthma is not controlled, a search for associations with promoting factors and adherence to treatment is also among the objectives of the study. Knowing the level of asthma control and influencing factors is a therapeutic priority in order to reduce hospitalizations and emergency care use. Objective: To assess asthma control and determine the factors influencing asthma levels in children with asthma during confinement following the COVID 19 pandemic. Method: Prospective cross-sectional study by questionnaire and structured interview among 66 asthmatic children followed in pediatric pneumology consultation at the CHU MED VI of Marrakech from 13/06/2020 to 13/07/2020, asthma control was assessed by the Childhood Asthma Control Test (C-ACT). Results: 66 children and their parents were included (mean age is 7.5 years), asthma was associated with allergic rhinitis (13.5% of cases), conjunctivitis (9% of cases), eczema (12% of cases), occurrence of infection (10.5% of cases). The period of confinement was marked by a decrease in the number of asthma attacks translated by a decrease in the number of emergency room visits (7.5%) of these asthmatic children, control was well controlled in 71% of the children, this control was significantly associated with good adherence to treatment ( $p<0.001$ ), no infection ( $p<0.001$ ) and no conjunctivitis ( $p=0.002$ ) or rhinitis ( $p<0.001$ ). This improvement in asthma control during confinement can be explained by the measures taken in the Kingdom to prevent the spread of COVID 19 (school closures, reduction in industrial activity, fewer means of transport, etc.), leading to a decrease in children's exposure to triggers, which justifies the decrease in the number of children having had an infection, allergic rhinitis or conjunctivitis during this period. In addition, the close monitoring of parents resulted in better therapeutic adherence (42.4% were fully observant). Confinement was positively perceived by 68% of the parents; this perception is significantly associated with the level of asthma control ( $p<0.001$ ). Conclusion: Maintaining good control can be achieved through improved therapeutic adherence and avoidance of triggers, both of which were achieved during the containment period following the COVID pandemic 19.

**Keywords :** Asthma, control, COVID-19, children

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