

LETTERS TO THE EDITOR

Analysis of the impact of COVID-19 pandemic confinement on demand for pediatric emergency care and the characteristics of children attended

Análisis del impacto del confinamiento en la demanda asistencial y características de los pacientes atendidos en urgencias pediátricas

To the editor:

On March 13th, Spain declared a state of alarm due to the COVID-19 pandemic¹. One of the measures included in this decree was the mandatory confinement of citizens. In view of this situation, several alerts appeared in the media and social networks indicating a possible increase in cases of accidents and poisoning in pediatric patients². However, to date, no study has evaluated the effect of the state of alarm in pediatric emergencies in Spain. The aim of this study was to analyze the effect of the state of alarm on the volume of pediatric emergencies, as well as on their diagnoses.

This retrospective cohort study compared patients treated in 2 periods of 7 weeks, between March 18 and May 5, 2019, and between March 16 and May 3, 2020 (weeks 12 to 20 of each year). The Pediatric Emergency Unit (PEU) of the Río Hortega University Hospital in Valladolid receives around 25,000 patients under 14 years of age each year. The following data were collected for each pediatric patient: age, sex, date and time of care, diagnosis and discharge destination. The study was approved by the hospital's CEIC. Since the data were obtained without patient identification, the study was exempted from the need to request informed consent. For the analysis of the diagnoses, we used the diagnostic coding of the Sociedad Española de Urgencias Pediátricas (Spanish Society of Pediatric Emergencies)³.

A total of 3,652 patients were treated in 2019, and 516 in 2020. Table 1 shows the characteristics and reasons for consultation in each period. The sex distribution of patients attended for accidents was similar in the 2 periods (47.4% female in 2019 by 43.6% in 2020; $p = 0.38$), but the mean age was higher in 2019 (90.1 months) than in 2020 (61.7 months) ($p < 0.01$).

Table 1. Demographic characteristics of the sample and patients treated for accidents in each period

	Year 2019 N = 3,652 n (%)	Year 2020 N = 516 n (%)	p
Sex (female)	1,661 (45.5)	237 (45.9)	0.67
Age (in months)	65.4 (49.6)	60.2 (47.3)	0.02
Accidents	774 (21.2)	156 (30.2)	< 0.01
Trauma	567 (15.5)	58 (11.2)	0.01
Foreign bodies	32 (0.9)	19 (3.7)	< 0.01
Intoxications	12 (0.3)	6 (1.2)	0.01

The confinement due to the state of alarm showed a decrease in the number of emergencies attended in the PEU of our hospital, together with a relative increase in accidents as a reason for consultation, mainly due to intoxications and the introduction of foreign bodies into body cavities, with a reduction in traumas. This would justify the younger age of these patients, given that it is at the earliest ages when children typically present exploratory behaviors, and the risk of ingestion of toxic substances or the introduction of small objects into their bodies is greater^{4,5}. In any case, given the limitations of being a single-center, hospital-based study over a short period of time, a multicenter study would be necessary to confirm these findings.

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