Covid 19 in children: Experience of a children's medical department

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Background

Since the start of the COVID 19 pandemic, for reasons still unknown, children are less affected than adults. Most infected children present with asymptomatic or pauci-symptomatic forms. Serious forms and deaths are exceptional in children. Deaths have been observed mostly in children with co-morbidities.

Purpose:

Describe the characteristics of children with covid-19 seen in our hospital

Methods:

This is a retrospective study conducted during the period from April 2020 to June 2021. During this period, 351 children were examined in the pediatric emergency room for suspicion of COVID19. Demographic, anamnestic (epidemiological contact), clinical, radiological, microbiological data were recorded in the clinical file. The diagnosis of COVID 19 was made based on the following criteria: Family contact, compatible symptomatology, positive SARS CoV2 serology and / or PCR, Evocative chest X-ray or chest CT.

Results:

351 children aged between 1 month and 15 years with a sex ratio 0.57 were examined. 182 children were asymptomatic contact subjects (52%), 169 children were symptomatic (48%) of which 26 children required hospitalization (7.4%). The majority of pauci symptomatic children had mild symptoms: General signs (fever, asthenia, headache) 50%, respiratory (cough, runny nose, sore throat) 40%, digestive signs (diarrhea, vomiting, abdominal pain) 10%. The outpatient care of these children consisted of surveillance and isolation at home and symptomatic therapeutic measures, and the outcome was simple among the 26 hospitalized children, the symptoms were respiratory (Pneumonia) in 12 cases (57%), Digestive 3 cases (15%), neurological 2 cases cerebral thrombosis, encephalopathy (9%), severe sepsis 2 cases, MIS-C-COVID 5 cases, hematologic 1 case, inaugural diabetic ketosis 1 case. Risk factors and comorbidities were identified in 11 children: malignant hematologic disease (6), congenital heart disease (1), chronic liver disease (1), immune deficiency (1), congenital aplastic anemia (1), metabolic disease (cycle disorder urea) (1). Depending on the clinical form, the following therapies: antibiotics, corticosteroids, anticoagulants and IV immunoglobulins have been used. 18 children (69%) had a good outcome, 8 children (31%) died (3 children with malignant hemopathy, 1 child with severe immune deficiency, aplastic anemia).

Conclusion:

The source of contamination of the child is often intrafamilial (close contact). In the majority of cases, the child is asymptomatic or has mild symptoms and the evolution is good. The high number of deaths in this hospital series (case fatality rate of 2.3 %) is explained by the great vulnerability of children with malignant hemopathy and immunosuppression. One child with combined immunodeficiency had a prolonged COVID 19 disease and died.