



الملخص الإنجليزي للأبحاث المقدمة من

الدكتور ه / ساره ابراهيم ابوالنور مدرس طب الأطفال كلية الطب جامعة الفيوم الى
اللجنة العلمية الدائمة لطب الأطفال للحصول على اللقب العلمي لوظيفة أستاذ مساعد



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البحث الخامس

(بحث مشترك منشور غيرمشتق من رسالة علمية)

عنوان البحث :

الاعراض السريرييه للاطفال الذين يعانون من العدوي بمتحور فيروس كوفيد 19 المحجوزين بوحده الرعايه المركزه
للاطفال بالفيوم (تجربه مركز فردي)

Clinical Presentation of Children with COVID-19 admitted to Pediatric Intensive Care Unit: Single Center Experience

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Abstract

Background: Coronavirus disease of 2019 (COVID-19) infection caused by severe acute respiratory syndrome coronavirus 2 (SARS-Cov-2) among children is mostly a mild disease yet it may cause life threatening direct histopathological lung injury and indirect immune dysregulation with hyperimmune response that causes multi inflammatory disease. **Aim of work:** to study the clinical presentation, indication of admission to pediatric intensive care unit (PICU), complications and outcome in children with COVID-19 infection. **Material and Methods:** Our prospective observational study included children with COVID-19 admitted to PICU of Fayoum University Hospital, Egypt between January and March 2021. **Results:** The study included 35 children admitted with severe SARS-Cov-2, diagnosed by CT chest and positive antibodies against SARS-CoV-2, of them 20 (57.1%) were males and 15 (42.9%) females. Their mean \pm SD age was 9 ± 8 months (range: 1 month to 10 years). The symptoms were heterogeneous; with fever 29 (82.9%) and cough 29 (82.9%) being the most frequent. The indication of admission to PICU was respiratory failure in 29 patients (80%), pediatric multisystem inflammatory syndrome – temporally associated with SARS- CoV-2 (PMIS-TS) in 5 (14.2%); 3 shocked, 2 of them with Kawasaki-like syndrome and 1 patient with liver cell failure (2.9%). The frequencies of lymphopenia and thrombocytopenia were (80% and 29.4%, respectively). Inflammatory markers, D-dimer, and cardiac enzymes were elevated in 28 (80%) patients. Complications included myocarditis in 8 (22.9%) cases and vascular thrombosis in 4 (11.4%). Intravenous immunoglobulin was prescribed exclusively for myocarditis, 31 (88.6%) of the patients received steroids and 19 (54.2%) received anticoagulants. Eight (22.9%) died; 6 with respiratory failure, 1 with liver cell failure and 1 with PMIS-TS and shock. Four (11.4%) patients were discharged with impaired cardiac function following myocarditis. Thrombocytopenia was found in 7 cases (29.4%) and was associated with mortality among the patients studied ($p=0.014$).

Conclusion: Severe COVID-19 in children presented with pulmonary and non-pulmonary affection. It was complicated by serious complications as myocarditis and vascular thrombosis. PMIS-TS clinically manifested as Kawasaki's disease and/or shock syndrome. Thrombocytopenia was a risk factor of mortality in the studied patients.

Keywords: lymphopenia; thrombocytopenia; myocarditis; pediatric; COVID-19; PMIS