COVID-19 related Multisystem Inflammatory Syndrome in a Neonate Presenting as Supraventricular Tachycardia. A Case Report

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Background. The increasing trend in COVID-19 associated multisystem inflammatory syndrome in children MIS-C has been reported as severe acute respiratory syndrome coronavirus 2 continues to spread worldwide. Impact of covid on newborns remains uncertain, while low, but the risk of neonatal infection does exist. A study from China reported 3% of neonates had evidence of SARS-CoV-2 infection. Postnatal infection is considered through horizontal transmission, as SARS-CoV-2 testing on placenta, umbilical cord, amniotic fluid, vaginal secretions, and breast milk samples has been negative. Diagnosis of MIS-C is based on 6 criteria: pediatric age, persistence fever, raised inflammatory markers, signs of organ dysfunction, lack of an alternative diagnosis, and temporal relation to COVID-19 infection or exposure.

Case Report. 24 days old neonate presented with fever, Ructless to feed and Respiratory distress for 1 day. He was born to a mother G2P1 + 0 with no Co-morbid at 38 weeks gestation with APGAR scores of 8 at 1 minute and 9 at 5 minutes. Clinically he was febrile with heart rate of 270 beats per minute and respira- tory rate of 70 breaths per minute. First and 2nd heart sounds were audible along with gallop rhythm. ECG showed rate of 270 & absent p wave suggestive of supraventricular tachycardia. INVESTIGATIONS. His pro BNP 152772 pg/ml and trop I were signifi- cantly raised. Echocardiography was consistent with severe biventricular dysfunction and Mead.

Conclusion. MIS-C in a neonate highlights the importance of considering the increasing spectrum of clinical manifestations, associated with SARS-CoV-2 infection. Further research is needed to make neonatal MIS guidelines.

Establishment of an antibiogram in paediatric Oncology unit in National Cancer Institute - Sri Lanka Samanmalie Gunasekara 1, Upekha Rathnayaka 1, Deepika Vidanage 1 Department of Microbiology, National Cancer Institute, Sri Lanka

Background. Bacterial infection is a dreadful complication in cancer patients worldwide. In low resource settings where supportive care facilities are less than ideal, this takes on even more greater significance. In recent years, the emergence of anti- microbial resistance has become a significant problem worldwide and patients are among these most affected. Treatment of infections due to MDR (Multi Drug Resistant) bacteria represents a clinical challenge since the therapeu- tic options are limited. It is important to monitor emerging trends of antibiotic resistance in an institu- tion to support clinical decision making and infection control interventions.

Method. A prospective study was carried out in children receiving autologous stem cell transplantation. All patient were invited to participate between December 1, 2020, and December 31, 2021. The study included children with moderate and severe acute SARS-CoV-2 infection who required hospitalization and MIS-C. Overall, 53 acute Covid-19 and 22 MIS-C patients were enrolled in the study. All patients were evaluated by specially designed assessment protocols, The Ethics Committee of Riga Stradins University reviewed and approved the study protocol questionnaire and informed consent forms (approval No. 6-1/07/35). Descriptive statistics were used to present the data.

Results. Data showed that two months after acute SARS-CoV-2 infection 84% (n=45) of patients had at least one persistent symptom. In addition, 73% (n=16) of MIS-C patients reported at least one persistent symptom. Generally, the most com- monly reported complaints among COVID-19 patients included rhinorrhea (41%), cognitive sequelae such as mood swings (38%) and irritability (36%), prolonged cough (30%), anxiety (19%), night sweats (15%), sore throat and shortness of breath (13%). In the MIS-C patient group - body weight changes and mood swings (36%), irritability (27%), poor attention (23%), fatigue (18%), and in 14% of cases were observed my- algia, night sweats, difficulties concentrating and anxiety. There were other similar but less common complaints in both groups, such as prolonged fever, nausea, shortness of breath, dizziness and memory impairment.

Conclusion. We found that at the time of interview more than half of COVID-19 and MIS-C patients reported at least one persistent symptom. Symptoms including rhinorrhea, mood swings, irritability, prolonged cough, poor attention and fatigue were the most frequently reported complaints of long COVID-19 after acute SARS-CoV-2 infection and MIS-C, representing the wide range of symptoms affecting children.

Prevalence of Staphylococcus aureus bacteremia at Saint Damien Hospital, Nosocomial bacteremia is a healthcare-associated infection. It poses significant morbidity and mortality. Its prevention is based on the control of the risk factors, collection, and analysis of data to set up actions and measures aimed at reducing the number of cases. Therefore implementation of antibiotic stewardship program and infection control measures is the main strategy for controlling the development and spread of these agents. The way to measure oral mucositis with specific scale based on WHO grading system for oral mucositis. Data was abstracted from patient medical records and analyzed in SPSS v.18.0 (IBM Corp., Armonk, NY, USA).

Results. From December, 2019 to December, 2021, a total of 20 patients receiving autologous stem cell transplantation, with a median age of 3.75 years (range: 2.5 years to 8 years). Of these patients, 18% (n=4) were below 2 years. Central venous catheter (CVC) was the most (40%) was diagnosed relapsed Burkitt lymphoma and used high dose chemotherapy with car- mustine, etoposide, cytarabine and melphalan; 1 patient was diagnosed metastatic retinoblastoma, and treated with intraocular and oral chemotherapy, all the patients tolerated well and had no side effect. 15% patients did not have any signs of oral mucositis, 85% of patients had oral mucositis, in which grade I mucositis accounted for 70% and grade II mucositis accounted for 15%. The median time for oral mucositis recovery was 4 days (range: 4 days to 11 days).

Conclusion. Oral cryotherapy is effective in preventing oral mucositis in patients undergoing high dose chemotherapy for the autologous stem cell transplantation. However, we need to implement and evaluate in the larger number of patients.

TWO MONTH FOLLOW-UP OF PATIENTS WITH ACUTE COVID-19 AND MULTISYSTEM INFLAMMATORY SYNDROME IN CHILDREN

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Background. Children infected with severe acute respiratory syndrome corona- virus 2 (SARS-CoV-2) are usually asymptomatic or have mild coronavirus disease (COVID-19) with low rates of both groups. Two long term consequences have been described after SARS-CoV-2 infection. The first is multisystem inflammatory syn- drome in children (MIS-C) and the second is "long COVID". Data on long COVID in pediatric patients has increasingly been published, giving new insights into the various phenomenon affects children. This study aimed to describe the persistent symptom spectrum of patients with acute SARS-CoV-2 infection and MIS-C two months after the diagnosis.

Method. This was a prospective cohort study conducted at the Children’s Clinical University Hospital in Latvia. The study population of pediatric COVID-19 and MIS-C patients were invited to participate between December 1, 2020, and December 31, 2021. The study included children with moderate and severe acute SARS-CoV-2 infection who required hospitalization and MIS-C. Overall, 53 acute Covid-19 and 22 MIS-C patients were enrolled in the study. All patients were evaluated by specially designed assessment protocols, The Ethics Committee of Riga Stradins University reviewed and approved the study protocol questionnaire and informed consent forms (approval No. 6-1/07/35). Descriptive statistics were used to present the data.

Results. Data showed that two months after acute SARS-CoV-2 infection 38% (n=45) of patients had at least one persistent symptom. In addition, 73% (n=16) of MIS-C patients reported at least one persistent symptom. Generally, the most com- monly reported complaints among COVID-19 patients included rhinorrhea (41%), cognitive sequelae such as mood swings (38%) and irritability (36%), prolonged cough (30%), anxiety (19%), night sweats (15%), sore throat and shortness of breath (13%). In the MIS-C patient group - body weight changes and mood swings (36%), irritability (27%), poor attention (23%), fatigue (18%), and in 14% of cases were observed my- algia, night sweats, difficulties concentrating and anxiety. There were other similar but less common complaints in both groups, such as prolonged fever, nausea, shortness of breath, dizziness and memory impairment.

Conclusion. We found that at the time of interview more than half of COVID-19 and MIS-C patients reported at least one persistent symptom. Symptoms including rhinorrhea, mood swings, irritability, prolonged cough, poor attention and fatigue were the most frequently reported complaints of long COVID-19 after acute SARS-CoV-2 infection and MIS-C, representing the wide range of symptoms affecting children.