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PS05.15 ($44)
High SARS-CoV-2 attack rates among asymptomatic hospital workers from Ecuador
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Purpose: To determine the SARS-CoV-2 risk of infection in Ecuadorian hospital. This study aims to describe the SARS-CoV-2 attacks rate and viral loads among patient care workers and other staff from Ecuadorian hospitals during the first wave of COVID-19 pandemic.

Methods & Materials: Study design and setting. We carried out a cross-sectional study to describe the attack rate of SARS-CoV-2 infection among patient care workers (physicians, nurses and nursing assistants) and other healthcare personnel (administrative and services staff) from 9 hospitals of the Andean and Costal Regions of Ecuador from May to October 2020.

Sample collection, RNA Extraction and RT-qPCR for SARS-CoV-2 diagnosis using the CDC protocol. The samples were processed in the BS12 certified molecular biology laboratory at Universidad de Las Americas. Nasopharyngeal swabs were collected on 0.5ml TE pH 8 buffer for SARS-CoV-2 diagnosis by RT-qPCR following an adapted version of the CDC protocol.

Statistical analysis. Chi cuadrado with the statistic program SPSS

Results: A total of 1243 patient care workers and 428 of other healthcare staff were tested for SARS-CoV-2 infection. The SARS-CoV-2 attack rate was 12% (145/1243) for patient care workers and 19% (80/428) for other healthcare personnel, being this difference statistically significant (p<0.05). For each hospital, the following SARS-CoV-2 attack rates were obtained for patient care workers and other staff: 35% and 50% in “Hogar ABEI”, 21% and 26% in “Clínica Nuestra Señora de Guadalupe”, 15% and 18% in “Hospital de Atención Integral al Adulto Mayor”, 5% and 11% in “Hospital de Especialidades Eugenio Espejo”, 12% and 22% in “Hospital Geriátrico Dr. Bolívar Arguello”, 13% and 22% in “Hospital Dr. Gustavo Dominguez”, 22% and 12% in “Hospital General Dr. Napoleón Dávila”, 9% and 14% in “Hospital Pablo Arturo” 5% and 13% in “Hospital San Francisco de Quito”. Moreover, we found 47 individuals (19 among patient care workers and 28 among other staff) with viral loads larger than 10^8 copies/mL that may be considered super spreaders.

Conclusion: Ecuadorian hospital workers at a high-risk group for SARS-CoV-2 infection. Regular SARS-CoV-2 testing should be mandatory for this group as even asymptomatic SARS-CoV-2 super spreaders can be detected.

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PS05.16 (417)
The Impact of COVID-19 Pandemic On Malaysian Police Officers Mental Health: Depression, Anxiety and Stress
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Purpose: Coronavirus disease (COVID-19) outbreak has causes life-changing impacts such as new environmental policies, slowdown of world economy and impact on global health and society. Police officers are among the front liners who continue to bravely fight this pandemic. As the frontline in managing the COVID-19 pandemic, police officers are at high risk for many forms of psychological problems which includes anxiety and depression. It is reported that a total of 60 officers from the New York Police Department died from suicide due to mental health disturbance and approximately 95 police officers in China died on the frontline of fighting this outbreak. Thus, it is important to provide appropriate mental health services and to be able to do such, there is the need to understand the psychological risk factors and their subsequent needs during pandemic. The main purpose of this study is to identify the impact of COVID-19 pandemic to mental health of Malaysian police officers.

Methods & Materials: Police Stress Questionnaires (PSQ) was used to measure the police-specific stressors related with COVID-19. Meanwhile, Depression Anxiety Stress Scale (DASS-21) questionnaires used to determine the prevalence of occupational stress among police officers.

Results: It is found that the highest percentage reported of 41.1% moderate depression, 45% of moderate anxiety and 31.8% moderate stress among the respondents. Lack of resources, unequal sharing of work responsibilities, inadequate equipment and high risk to COVID-19 infection are associated with depression, anxiety and stress among police officers. There is significant correlation between COVID-19 stressors and level of depression, anxiety and stress among the police officers with direct correlation.

Conclusion: Majority of the police officers suffer moderate to severe depression, anxiety and stress during COVID-19 pandemic. Identified stressors from the study help to develop best practices and offers recommendations for policing when handling pandemic in future.

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PS05.17 (818)
Efficacy of Favipiravir in treatment of mild & moderate COVID-19 infection in Nepal: a multi-center, randomized, open-labelled, phase III clinical trial
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Purpose: To study tolerability and outcome of oral favipiravir treatment among COVID-19 patients in Nepal.

Methods & Materials: In this multi-centered randomized, open-labelled phase III clinical trial, we enrolled 18-80 years old, RT-PCR confirmed patients with mild to moderate COVID-19 infection from 9 participating hospitals of Nepal, within 6 days of onset of symptoms. The investigational product (Favipiravir) was compared against placebo in patients with mild infection and against Remdesivir in moderate infection. Patients who met the eligibility criteria were randomly enrolled in the study after taking informed consent. This is a preliminary report of the data analysis.

Results: At the time of this preliminary data analysis, 90 cases were enrolled in the study including 70 mild and 20 moderate cases (see table). Among the participants with mild COVID19 infection, clinical improvement was noted in 30 (78.9%) and 27 (84.4%) patients who received Favipiravir and placebo, respectively.
Study Arm | Clinical Outcome | Overall (N=70) n (%) | Favipiravir (n=38) n (%) | Placebo (n=32) n (%) | Significance (p value)
--- | --- | --- | --- | --- | ---
Mild Cases | Clinical improvement | 57 (81.4%) | 30 (78.9%) | 27 (84.4%) | p=0.785
| Treatment failure | 13 (18.6%) | 8 (21.1%) | 5 (15.6%) | --- |
Moderate Cases | Clinical improvement | 17 (85%) | 9 (81%) | 8 (88.9%) | P=---
| Treatment failure | 3 (15%) | 2 (18.2%) | 1 (11.1%) | 1

(p=0.78). While among the participants with moderate infection, 9 (81%) and 8 (88.9%) patients who received Favipiravir and Remdesivir, respectively, had clinical improvement (p=1). Patients tolerated Favipiravir well with only 3 (61.2%) patients showing adverse events, which were mainly elevated liver function test & uric acid level, both considered minor. None of the patients receiving placebo or remdesivir reported any adverse events.

Conclusion: The investigational product has been tolerated well by this group of patients with only mild and reversible side effects in 61.2% cases. The outcomes between the study groups were comparable.

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PS05.18 (313)

Asymptomatic forms of COVID-19 in pregnant women: long-term consequences

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Purpose: to establish the long-term effect of asymptomatic forms of COVID-19 on the course of pregnancy.

Methods & Materials: An analysis of pregnancy outcomes was carried out in 40 women who had asymptomatic forms of COVID-19.

Results: The COVID-19 pandemic in conditions of high fertility in the southern regions of Kazakhstan caused pregnant women to become ill with coronavirus infection, including asymptomatic forms. Often asymptomatic forms remain undiagnosed and unaccounted for. We have studied cases of visits to a doctor by pregnant women for various reasons: stopping fetal movement, reducing the size of the abdomen and other complications of pregnancy. When examining them by ultrasound, oligohydramnion was detected in 85% of cases, premature aging of the placenta, placental cysts in 27.5%, and impaired blood flow in the uterine-fetal-placental circulation in 12.5%. Subsequently, 51.4% of women gave birth at full term, 48.5% gave birth prematurely, that is every second woman in the study group gave birth prematurely. In a detailed retrospective laboratory examination of women with the above pathology, IgG SARS-CoV-2 was detected in 92.5% of cases, indicating an asymptomatic coronavirus infection. The development of obstetric complications required from the medical staff reinforced observation and additional assessment, more frequent reclassification of the condition of the mother and fetus, and in some cases induction of labor. This tactic was applied in 12 cases (34.2% of the total number of women who gave birth), when prolongation of pregnancy was associated with a high risk to the health of the mother and fetus.

Conclusion: Asymptomatic forms of COVID-19 in pregnant women have long-term consequences in the form of oligohydramnion, premature aging of the placenta and impaired uterine blood flow. All cases of the transferred coronavirus infection in pregnant women, including asymptomatic ones, require more careful, in comparison with the generally accepted and frequent monitoring of pregnancy, in the form of control of the gravidogram, measurement of the abdominal circumference, the height of the uterine fundus, control ultrasonography of the fetus, amniotic fluid and uterine dopplerometry of fetal-placental blood flow.

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PS05.19 (138)

Case series of acute kidney injury in children with SARS-CoV2 associated multisystem inflammatory syndrome

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Purpose: In the first part of 2021 in Khimki regional hospital was eight-times increase of hemolytic-uremic syndrome (HUS) in children vs 2020. There are some data on association of HUS and COVID-19 in the literature. Our aim to describe case series of HUS in children with SARS-CoV2 associated multisystem inflammatory syndrome (MIS-C).

Methods & Materials: We developed 8 children, age 1-11 yrs. (Me 4.5), 3M/5F. All had anemia (Hb 58 - 105, Me 83.8 g/l), thrombocytopenia (45 -136, Me 84.10^9/l) and kidney injury (azotemia, diuresis decrease, reduced GFR).

Results: In anamnesis nobody had COVID-19, SARS-CoV2 RNA (oropharyngeal swab) was negative. 6 had anti-SARS-CoV2 IgG. 3 patients had antibody inversion during hospitalization. That means, they developed acute kidney injury (AKI) in early convalescence period of COVID-19. 6 children had fever, vomiting and diarrhea in anamnesis. 1 had only myalgia, 1 had transient hemorrhagic rash. All children had SIRS: ESR acceleration (15–43 mm/h), CRP increase in 6 cases (not more 5 norms), elevated ferritin (307–648 mkgl) and D-dimer (3,24-8 mkgl/Ml). Mixed urinary syndrome was noted: proteinuria (0,1 - 6 g/l), hematuria (RBC 6-50). 100% had azotemia: urea (12,7-65,3, Me 35 mmol/l), creatinine (74–1450,2, Me 499 mmol/l). GFR by Schwartz formula was reduced in all cases (1,7–58,1/ml/min/1,73 m^2). 3 had anuria, 2 oliguria. Renal replacement therapy (RRT) performed in 5 cases: 3 hemodiafiltration (HDF) only; 2 - HDF + plasma exchange (1 – 7 procedures). All children were complex treated and discharged with normal clinical urine test and creatinine level, diuresis 1,6-2,4 ml/kg/h.

Conclusion: In MIS-C pathogenesis thrombotic microangiopathy is one of the key points. We saw elevation of HUS in children in the COVID-19-pandemia period. 6 from 8 described