Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

AN EPIDEMIOLOGICAL STUDY OF LABOATORY CONFIRMED COVID -19 CASES AMONG CHILDREN IN A TERTIARY CARE HOSPITAL IN UTTAR PRADESH

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Background: Coronavirus disease - 2019 (COVID-19) was declared a worldwide pandemic in March 2020 by WHO. Nearly 27 million cases and 900,000 deaths have been reported globally by WHO as on 6th SEP 2020. Children represent 12% of infections with Case fatality rate in children varying between < 0.5% - 5%.
Methods:A retrospective hospital based cross-sectional study was performed on all samples of suspected cases of SARS- COV-2 infection received from the adjoining districts and from our Institution in the Department of Microbiology from June 1 to August 31, 2020. Cases were then confirmed by RT-PCR.
Results: Out of total 113279 cases tested in our department 17820 represented total paediatric cases of which 462 were SARS-COV-2 positive cases. In the present study the proportion of children found positive were 2.6% (462/17820). Ma- jority of positive cases were between the ages of 16-18 years. Infants represented 2.1% (10) of the total paediatric posi- tive cases. About 57.7% (267) of all laboratory confirmed positive cases were asymptomatic. Among 462 confirmed cas- es 27 (5.8%) were admitted in UPUMS, Saifai tertiary care hospital. The total number of positive cases in pediatric popu- lation in the month of June, July, August were 126(27.2%), 152(32.9%) and 184(39.8%) respectively.
Conclusions: Children of all ages appeared susceptible to COVID-19 with male predominance. Children accounted for a very small proportion of confirmed cases, which can be related to mitigation measures such as closure of schools, decreased outdoor activities. SARS-COV-2 seems to less commonly affect children and causes fewer symptoms and less severe disease in them. Our findings provide further evidence of distribution of infection in children and transmission of SARS-COV-2.

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EVALUATION OF BACTERIAL CO-INFECTIONS IN COVID-19 PATIENTS ADMITTED IN ICU

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Background:COVID-19 is a new viral infection. Viral- bacterial co-infections are one of the biggest medical concerns, resulting in in- creased mortality rates. To date, few studies have investigated bacterial superinfections in COVID-19 patients admitted to ICUs.
Methods:A total 43 patients admitted to our ICUs were enrolled in this study. To detect COVID-19, real - time polymerase chain reac- tion was performed. Pleural fluid, blood & sputum samples were collected from symptomatic patients and then all the samples were processed and bacterial identification was done using standard microbiological techniques. Antimicrobial susceptibility testing was carried out based on the CLSI recommendations.
Results: Of 43 COVID -19 patients, 26 (60.46%) patients were male & 17 (39.53%) patients were female, with a mean age of 65 years. The average ICU length of stay was approximately 20 days. Among all admitted patients, 31 patients were found positive for bacterial infections & 12 patients were negative. Most common isolates were Staphylococcus aureus (11) & Pseudomonas aeruginosa (8). Oth- ers were Acinetobacter baumanii (6), Klebsiella pneumoniae (3), Enterococcus species (2) & coagulase negative staphylococcus spe- cies. All of the staphylococcus aureus isolates were detected as methicillin- resistant staphylococcus aureus & out of which 1 was detected as vancomycin resistant staphylococcus aureus. All of the staphyloccus isolates were sensitive to linezolid & also they were sensitive to vancomycin except one isolate. All isolates of Pseudomonas aeruginosa, Klebsiella pneumonia & Acinetobacter baumanii were 100% sensitive to Colistin & have shown different percentage of sensitivity to other antibiotics. All isolates of enterococcus & coagulase negative staphylococcus species were sensitive to gen- tamicin, linezolid & vancomycin.

Antibiotic biogram of bacterial isolates among positive COVID -19 patients

	Staphylococcus aureus	*Enterococcus*	*Coagulase negative staphylococcus*
Azithromycin	54.54%	66.66%	66.66%
Cefoxitin	0%	0%	33.33%
Levofloxacin	36.36%	33.33%	33.33%
Cotrimazole	72.7%	100%	100%
Doxycycline	90.90%	50%	83.3%
Gentamicin Linezolid	72.7% 100%	0% 100%	0% 100%
Penicillin	0%	0%	0%
Vancomycin	99.9%	100%	100%

Conclusions: Our findings emphasize the concern of superinfection in COVID-19 patients due to Staphylococcus aureus & Pseudomonas aeruginosa. Consequently it is important to pay attention to bacteri- al co-infections in critical patients positive for COVID-19.

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CLINICAL CHARACTERISTICS, DIAGNOSIS & OUTCOME OF COVID 19 INFECTIONS AMONG HEALTH CARE WORKERS AT A TERTIARY CARE CENTRE

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Background: Healthcare workers (HCW) play a critical and central role in providing patient care to the population and are more prone for occupational exposure and are at high risk of becoming infected with the coronavirus that causes COVID-19, especially if they are exposed to a large number of patients.
Methods:A prospective study was undertaken in a tertiary care centre from June 1st to September 31st, 2020(a period of 4months). A total of 706 medical staff were tested based on clinical symptoms and history of contact with confirmed or suspected covid -19 cases. Nasopharyngeal swabs were collected and placed in the VTM vials and transported to the laboratory. RT-PCR (Reverse Transcriptase –Polymerase chain reaction) was performed for diagnosis of Covid-19.
Results:A total of 153 of 706 HCWs were tested positive for COVID-19, with an infection rate of 21.6%.Of them,113 (74%) were symptomatic while 40 were asymptomatic (26%).The median age of the HCWs was 34 yrs ,86 (56.2%) were males,67 were females. Among 153 HCW, 102(67%) were clinical staff who were directly in contact with patients. The prevalence of subclinical infection was 5.2% (8 of 153) among asymptomatic HCWs. The most common symptoms were cough (67, 59.2%), fever (51, 45%), and sore throat (48, 42.4%). Type 2 Diabetes mellitus was the most common comor- bidity (30, 19.6%).Out of 153, 63 HCWs (41.1%) had history of contact with confirmed or suspected covid 19 cases. Cycle threshold (ct) values of the RT-PCR test were predominantly observed between 24 to 33(67, 43%) in mild, moderate and severe stages of the disease .All the cases were uneventful and were managed successfully.
Conclusions: Early identification of suspected covid-19 cases allows for early isolation, timely supportive therapy & re- covery of infection during mild stages of the disease.As the risk of infection risk was high in both clinical and non-clinical staff, our results suggest the need to increase awareness and ensure proper donning and doffing of PPE and strict ad- herence to infection control measures such as implementation of Hand Hygeine, Social distancing, and respiratory eti- quette.

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