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A CASE REPORT OF NOCARDIA ASIATICA IN A RENAL TRANSPLANT RECIPIENT

Chandana Devaraj, Jayasree Shivasasan. Apollo Hospitals, Bannerghatta road, Bangalore

Background: Nocardiosis is caused by a gram positive, weakly acid fast, branching filamentous aerobic bacteria belong to the order of Actinomycetales. This case shows the importance of keeping nocardiosis as a differential diagnosis in the presence of pulmonary symptoms with unusual radiological presentation in immunocompromised patients. Here, we report a case of pulmonary Nocardiosis in a renal transplant patient by Nocardia asiatica.

Methods: A modified 2N stain using 1% HS2O4 in the ET secretion revealed numerous acid fast branching filamentous organisms morphologically resembling Nocardia spp and the culture grew Nocardia and it was confirmed as Nocardia asiatica by MALDI TOF.

Results: Antibiotic susceptibility testing was done by Kirby Bauer’s disk diffusion method which was sensitive to Azithromycin, Cefotaxime, Cotrimoxazole, Ceftriaxone, Imipenem, Meropenem, and Linezolid and resistant to Levofloxacin. The patient was started on Trimethoprim-Sulfamethoxazole and later Meropenem was added as a second line drug due to inadequate response. Acid fast stain, AFB culture and Genexpert were negative. Chest X ray revealed, Right lower lobe consolidation and Pleural effusion on the right side. Computed tomography revealed development of consolidation of posterior segment of right upper lobe, middle lobe and lower lobe segments. There was a coinfection with Cytomegalovirus in the patient with the viral load being 7000 copies/ml.

Conclusions: This was a case of pulmonary nocardiosis by a rare species of nocardia called ‘Nocardia asiatica’ in a renal transplant recipient. Nocardiosis should be kept as a differential diagnosis of pneumonia especially in patients who are not responding to empiric treatment and when radiological features are atypical. Nocardiosis presents with varying signs and symptoms in both immunocompetent and immunocompromised patients. Patients can present multiple fevers, in our case there was a concomitant infection with cytomegalovirus and Nocardia.

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ANTIBIOTRICGRAM OF KLEBSIELLA PNEUMONIE STRAINS ISOLATED FROM URINARY SAMPLES OF ADULT PATIENTS WITH UTI COMING TO RIMS RANCHI FROM JANUARY 2020 TO AUGUST 2020.

Shome Bhuvan, Kumar Manoj, Sharma Ashok Kumar. RIMS, Ranchi

Background: Klebsiella is gram negative bacilli, immobile and produces a prominent polyaccharide capsule. Klebsiella pneumoniae is one of the important causes of urinary tract infection. Resistant strains of Klebsiella pneumoniae, especially to several antibiotics of different drug classes have become very prevalent.

Method: In this cross sectional study, we collected 2343 samples of urine for culture and sensitivity in Department of Microbiology, RIMS, from 1st January, 2020 to 31st August 2020, out of which 232 samples were found to have Klebsiella pneumoniae isolates. Initially we selected these strains using standard laboratory and microbiology methods, and for antibiotic sensitivity and resistance pattern study was performed by Kirby-Bauer disk diffusion method and results were interpreted as per CLSI guidelines 2020.

Results: The highest degree of resistance of Klebsiella pneumoniae isolates were respectively to Gentamycin (32.83%) and Tetracycline (27.78%). Antibiotic with highest susceptibility was Cefoperazone with sulbactam-98.9%, Imipenem-98.6%.

Conclusions: Considering the high prevalence of resistance to antibiotics, early and timely detection of resistant strains seems necessary to select appropriate treatment options and to prevent the spread the resistance. As compared with a study done on similar topic by Seva Leisy Azae and Amir Reza Ebadi in 2015 suggested similar susceptibility to imipenem of around 99% but also showed susceptibility to amikacin around 98% which was not found corresponding in our study

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AETOLOGICAL DIAGNOSIS OF ACUTE RESPIRATORY ILLNESS IN PATIENTS UNDER INVESTIGATION FOR THE NOVEL CORONA VIRUS (SARS-COV-2) BEFORE MAJOR COVID-19 OUTBREAK IN INDIA

Hricha Mishra, Amita Jain, Shantanu Prakash, Suruchi Shukla. Department of microbiology king George medical college lucknow

Background: The first case of COVID-19 was reported in India on 30th January 2020 with origin from China (PIB 2020, ‘https://pib.gov.in/pressreleaseframepage.aspx?prid=1601095’). As on 6th May 2020 the total cases reported in India are 35,043, with 8,889 recoveries and 1,147 deaths (https://www.mohfw.gov.in/ accessed on 6th may at 12:54 PM). However, the rate of infection is lower as compared to other countries. Since the Covid-19 pandemic started spreading in world outside China including India and large scale testing for Covid-19 became available, all the focus suddenly shifted to Covid-19. Other respiratory viruses, which were in existence for many years and testing and management of these infection was always standard of care, started getting neglected. Hence, we analysed the retrospective laboratory results from cases of acute respiratory infection, tested in the month of February 2020, when Covid-19 cases in India were close to negligible. This is to focus on need of testing for other respiratory viruses along with Covid-19 so that these infections can be managed as per standard protocol and do not get neglected in the wake of pandemic.

Methods: The Virus research and diagnostic laboratory at Department of Microbiology, King George’s Medical University (VRDL) started testing for Covid-19 on 3rd February 2020. This laboratory routinely tests all patients presenting as Severe Acute Respiratory Ill- ness (SARI) for 12 respiratory viruses including Influenza (Inf) A (both H1N1 and H3N2) and B, Adenovirus (ADV), Respiratory syntitial virus (RSV), Parainfluenza (Parainf) viruses 1, 2, 3 and 4, Measles virus (MEV), Bocavirus, Human metapneumo virus (HMPV) and Rhino- noviruses (Rhino). All patients presenting as Influenza like illness (ILI) are routinely tested for Influenza A and B viruses, if they test negative, other viruses are tested depending on clinical suspicion. The testing is routinely done as per methods described earlier (Singh A.K., Jain A., Jain B., Singh K.P., Dangi T., Mohan M. Viral aetiology of acute lower respiratory tract illness in hospitalised paediatric patients of a tertiary hospital: one year prospective study Indian J Med Microbial. 2014; 32:13–18).

Results: During February 2020, we tested 316 cases of SARI/ILI for covid-19. None of them tested positive for Covid-19. Samples from these cases were also tested for other respiratory viruses as mentioned above. Total 10 (3.2%), 8 H1N1 (2.5%) and 2 H3N2 (0.6%) samples tested positive for Influenza A, 2 each tested positive for Influenza B, HMPV and Adenoviruses. One sample each tested positive for RSV and Rhinoviruses. Total 5 samples tested positive for parainfluenza viruses; 3 for parainfluenza 1, and 1 each for parainfluenza 1 and 4

Conclusions: (see table). The positivity for covid-19 in India in pandemic time remains less than 4% (https://www.mohfw.gov.in/ac-ceded on 06 May 2020, 08:00 IST), while the positivity for rest of the respiratory viruses as shown in present analysis is 7.3%. It is essential to see that infection with other respiratory viruses does not get neglected and add to the Covid-19 misery.

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EFFECT OF TREATMENT STRATEGIES ON IGG ANTIBODY AGAINST SARS-COV-2 AMONG COVID INFECTED HEALTH CARE WORKERS IN A TERTIARY CARE CENTER.

Shruthi Ginnela, S. Pavana, V. Shailaja, G. Jyothi Lakshmi. Osmania Medical College

Background: COVID-19 is an infectious disease caused by a novel coronavirus (SARS-CoV-2). Serologic assays for SARS-CoV-2, play an important role in understanding the immune status of post covid health care workers who are at highest risk of infection. In this infection, IgM and IgG antibodies can arise nearly simultaneously in serum within 2 to 3 weeks after illness onset. Around day 14 after symptom onset, IgG will rise above detection levels and will generally continue to rise for 28 - 35 days after symptom onset, peaking around or after clinical recovery. IgG typically has a long half-life and will remain above detectable thresholds for months after the resolution of infection. Most widely used treatment strategies include steroids, antivirals and antibiotics. Aim of the
study is to assess the effect of treatment strategies on IgG antibodies against SARS-CoV-2 among covid infected Health care workers.

**Methods:** All the post covid HCWs (60-75 days after detection) were categorized into 4 groups on the basis of treatment strategies. 1st group (30) – combination of antiviral and steroid therapy, 2nd group (30) – only steroids, 3rd group (15) – only antivirals, 4th group (15) – only antibiotics (asymptomatic). All the groups were treated with multivitamins and VitC along with above mentioned therapy. Qualitative IgG ELISA using Merilisa kits was adopted to assess the prevalence of IgG antibodies against SARS-CoV-2 to know the pattern of IgG antibody titres.

**Results:** 90 samples were collected for this study, which were subjected to qualitative ELISA. Out of these highest IgG titres were found in patients only on antibiotics followed by only on antivirals, followed by steroid and antiviral combination and least was found in patients only on steroids.

**Conclusions:** This study showed that administration of steroids results in early weaning of antibodies. Re-infestation could be more in these cases.

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**SEROPREVALENCE OF ANTI SARS COV 2 IGG ANTIBODIES IN HEALTHCARE WORKERS WORKING IN COVID ISOLATION WARDS AT A TERTIARY CARE CENTRE IN HYDERABAD**

Nivedita Mohan, N. Sridevi, N. Padmapriya, D. Sharanya, G. Jyothi Lakshmi. Osmania Medical College

**Background:** Healthcare workers are at a high risk of contracting SARS CoV-2 infection due to their close contact with COVID19 confirmed and suspected cases. Preventing infection amongst healthcare workers is crucial, not only for maintaining a healthy and functional workforce during the pandemic, but also to reduce secondary transmission to colleagues and other patients. Prevalence of IgG antibodies against the infection provides essential information regarding undetected infection and transmission. The present study is being conducted to estimate the seroprevalence of SARS CoV-2 antibodies among healthcare workers working in COVID19 isolation wards.

**Methods:** 90 healthcare workers working in covid isolation wards were recruited into the study. A questionnaire was administered for risk assessment and history of previous RT-PCR confirmed COVID-19 infection, if any. Serum sample collected from the participants were tested for anti SARS CoV 2 IgG antibodies by Indirect ELISA (Covid Kawach IgG Microtiter by J Mitra).

**Results:** Out of 48 processed samples so far, 16 (33.3%) samples were positive for SARS CoV 2 IgG antibody of the 16 positive samples, 14 samples were negative by RT-PCR previously. The remaining results will be produced at the time of the presentation.

**Conclusions:** Presence of anti SARS CoV 2 IgG antibodies amongst healthcare workers at high risk, who tested negative by RT-PCR previously can indicate a previous asymptomatic infection, which calls for further evaluation.

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**PREVALENCE OF ALLERGIC RESPIRATORY DISEASES IN COVID 19 POSITIVE HEALTH CARE WORKERS AT HYDERABAD**

P. Chandra Lekha, V. Sudha Rani, G. Jyothi Lakshmi, P. Shashikala Reddy. Osmania Medical College

**Background:** COVID-19 caused by a novel coronavirus (SARS-CoV-2) has emerged as a global pandemic. There is a continuous debate whether to consider allergic respiratory disorders as protective factor or as a risk factor for COVID-19. At the same time severity of COVID 19 is found to be more if patient’s level of disease control is poor according to some studies. Hence there is a need to find the prevalence of allergic respiratory diseases among COVID 19 positive cases. HCW are taken as the study population as they have equal COVID exposurerisk and also good level of disease control. AIM: To find the prevalence of allergic respiratory diseases among COVID positive HCW.

**Methods:** Nasopharyngeal samples of HCW collected from May 15 to November 15 2020 were subjected to RT PCR for detection of SARS COV-2 RNA and the positive cases were noted for history of allergic respiratory disorders like chronic rhinosinusitis, asthma from the clinical information provided while sample collection.

**Results:** Out of total 912 Health Care Workers tested for COVID 19 in first 5 months by RT PCR 121 were COVID positive, among them 24(19.8%) have known history of allergic respiratory diseases of which 4(3.3%) were known for Chronic Rhinosinusitis, 15(12.3%) were asthmatic, 5(4.13%) were both CRS and asthma, further results will be provided at the time of presentation.

**Conclusions:** Prevalence of allergic respiratory diseases helps in finding out if it’s a risk factor or not and also if any pro-proactive role against COVID 19 to help in further studies.

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**COVID 19 CO-INFECTION WITH HIV AND HEPATITIS C**

Anupam Berwal, Prerna Aggarwal, Lokvendra Singh Budania. Kalpana Chawla Govt. Medical College, Karnal

**Background:** The COVID-19 has been a severe pandemic all around the world. During this pandemic, very few cases of SARS-CoV-2 co-infected with HIV and Hepatitis C are reported. Here we report two rare cases of SARS-CoV-2 co-infected with HIV and Hepatitis C. According to the limited literature available, HIV patients co-infected with COVID-19 have a high mortality rate and poor clinical outcomes, but we report special cases of SARS-CoV-2/HIV and SARS-CoV2/Hepatitis C, both cases were already on antivirals and had good clinical outcome.

**Methods:** Case 1: 58 year old male, known case of HIV diagnosed two years ago with normal CD4 + T cell count. Present- ed with chief complaints of cough and shortness of breath. On examination had respiratory rate of 28/min and spo2 89