



TO STUDY THE CLINICAL PROFILE AND PREDICTORS OF OUTCOME IN FIRST WAVE OF COVID 19 PATIENTS

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KEYWORDS :

INTRODUCTION:

Severe acute respiratory syndrome coronavirus (SARS-CoV)-2, a novel coronavirus from the same family as SARS-CoV and Middle East respiratory syndrome coronavirus, has spread worldwide leading the World Health Organization to declare a pandemic.

Globally upto 26 December 2020 more than 80,400,000 confirmed cases with 1,760,738 deaths have occurred with 220 countries affected. In INDIA total 101,183,478 cases have been confirmed till date with 1,47,557 deaths.

The disease caused by SARS-CoV-2, coronavirus disease 2019 (COVID-19), presents flu-like symptoms which can become serious in high-risk individuals.

Infection is transmitted from human to human and through contact with contaminated environmental surfaces. Hand hygiene is fundamental to prevent contamination. Wearing personal protective equipment is recommended in specific environments.

The main symptoms of COVID-19 are fever, cough, fatigue, slight dyspnoea, sore throat, headache, conjunctivitis and gastrointestinal symptoms, loss of smell or taste, nasal congestion or a skin rash.

Real-time PCR is used as a diagnostic tool using nasal swab, tracheal aspirate or bronchoalveolar lavage samples. Computed tomography findings are important for both diagnosis and follow-up.

The most common laboratory abnormalities observed in the course of disease were decreased lymphocyte count, elevated CRP and ESR, elevated IL-6, elevated LDH, elevated ferritin, elevated D-dimer. Further analysis of severe critically ill patients and non severe groups demonstrated that severe group had significantly increased IL6, CRP, ESR and LDH levels and significantly decreased lymphocyte percentage although with higher total WBC counts and higher neutrophil counts.

To date, there is no evidence of any effective treatment for COVID-19. The main therapies being used to treat the disease are antiviral drugs, chloroquine/hydroxychloroquine, steroids, anticoagulation therapy and respiratory therapy. In conclusion, although many therapies have been proposed, quarantine is the only intervention that appears to be effective in decreasing the contagion rate.

Why are we doing this study?

Covid 19 pandemic has affected millions of people worldwide due to which many people have been hospitalized and caused thousands of deaths worldwide. Since little data is available regarding the course of disease and predictors of outcome we decided to undergo this study.

AIM and OBJECTIVES

AIM:

To study the clinical profile and predictors of outcome with respect to discharged alive or death in COVID-19 patients.

OBJECTIVE:

1. To study relation between clinical severity of the disease at the time of admission and outcome.
2. To study relation between time period between date of first symptom and date of admission in hospital and outcome.

3. To study relation between various comorbidities like and outcome.
4. To study relation between lab investigations and outcome.
5. To study relation between radiological severity and outcome.

MATERIAL AND METHODS:

The present study was retrospective cross-sectional study was carried out in the department of General Medicine of tertiary health care teaching hospital to study clinical profile and predictors of outcome with respect to discharge or death in COVID-19 patients. STUDY AREA – The present study was conducted in department of General Medicine and medical record office of medical college and tertiary care hospital. STUDY POPULATION- Patients fulfilling inclusion criteria. INCLUSION CRITERIA All covid RT-PCR/RAT positive patients from Nair hospital. EXCLUSION CRITERIA: COVID-19 suspect patients Incomplete medical records. SAMPLING: Simple random sampling method. STUDY DESIGN: Descriptive Observational study STUDY DURATION: 6 Months. METHODOLOGY: Ethics committee approval was taken before commencement of study. Waiver of consent requested from ethics committee for recording of data of patient for retrospective study. Data of adult COVID positive patients admitted in tertiary care hospital (from 01/05/2020 to 31/10/2020) collected from Medical Record Office. We included all hospitalized patients including ICU patients and those from General wards. ETHICAL APPROVAL AND DATA COLLECTION: All ethical considerations and necessary approvals were taken, DATA COLLECTION: After the approval, data was collected from medical records section as described above. 36 These findings were recorded in the case record form and the same were entered in the Microsoft excel 2019 version. STATISTICAL ANALYSIS OF DATA: Qualitative data represented in form of frequency and percentage. 37 Among Qualitative data, Nominal data included Gender of the Covid-19 cases, First Symptoms, Category on admission (Mild /Moderate/Severe /Asymptomatic), Oxygen delivery (NP, BMV, NIV, HFNC, Invasive Ventilation), findings of HRCT Thorax, Outcome (Died/Discharged), Pharmacotherapy, Comorbidities, etc. Association between qualitative variables were assessed by Chi-Square test, with Continuity Correction for all 2 X 2 tables and by Fisher's Exact test for all 2 X 2 tables where Chi-Square test was not valid due to small counts.

RESULTS:

- Out of 100 patients 38 (38.00%) were from age group between 51 to 65 yrs. followed by 30 (30.00%) were between 36 to 50 yrs, 22 (22.00%) were from 66 to 80 yrs, 08 (8.00%) from between 21 to 35 yrs and 02 (2.00%) were above 80 yrs.
- Out of 100 patients 64 (64.00%) were male and 36 (36.00%) were female.
- Out of 100 patients 54 (54.00%) having fever, 22 (22.00%) having cough, 16 (16.00%) breathlessness, 2 (2.00%) chest pain.
- Out of 100 patients 53 (53.00%) were severe, 19 (19.00%) were moderate and 28 (28.00%) were mid in severity on admission.
- Out of 100 patients 42 (42.00%) were having hypertension followed by 39 (39.00%) were having Diabetes mellitus, 25 (25.00%) other illness like multiple myeloma, hyperthyroidism etc. 13 (13.00%) were having CKD and 12 (12.00%) were having cardiac illness.
- Out of 100 patients 73 (73.00%) were discharged and 17 (17.00%) were death.
- All 17 patients who were dead having severe grade disease 73 17 Discharge Death 45 and this difference was statistically

significant. The association between severity of disease and outcome was statistically significant. (P value <0.05)

- Mean time period between date of first symptom and date of admission in hospital was greater in death patients than in discharged patients and this difference was statistically significant. (P value <0.05)
- Mean duration of stay in hospital was greater in discharged patients than in death patients and this difference was statistically significant. (P value <0.05)
- Association between comorbidities (DM, HT, cardiac illness and CKD) and outcome were statistically not significant. (p value >0.05)
- Comparison of mean above lab parameters were statistically significant in all except IL6 which was not significant. (P value >0.05) (unpaired t test)
- Mean time period between date of first symptom and date of admission in hospital and mean duration of stay in hospital was greater in severe form than mild and moderate but this difference was not statistically significant. (P value >0.05)
- Difference between above lab parameters in severity of disease were statistically significant in all parameters. (P value <0.05)
- Drugs used during treatment and difference in outcome was statistically significant in Hydrocortisone, LMWH/Heparin, Tocilizumab/Itolizumab. (P value 0.05)

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