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Symptoms Trends of Covid-19 among patients in Central hospital, Ramgarh, Northern India: A retrospective study

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ABSTRACT: Background and Aim: The virus that causes coronavirus disease 19 (COVID-19) is a highly transmittable and pathogenic viral infection and mainly transmitted through contact with respiratory droplets rather than through the air, also be transmitted through surface contamination when these droplets land on eyes, nose or mouth of the person.[1,2,3]
The aim of our study was to find out the trends of symptoms among Covid-19 Ag infectedpatients in central hospital Ramgarh. **Materials and Methods**: This study was carried in a Corona Testing Lab, Department of Pathology, Central Hospital Ramgarh, Jharkhand. This was a Retrospective study. A total of 350 patients were screened with or without symptoms for corona testing by Rapid antigen Card[4]testing and data was analyzed with respect to symptoms and outcome of results.
Results: Out of 350 patients screened for Covid-19 infections, 50 patients were positive for Covid-19 Ag. Most of the patients are asymptomatic and fever was most common symptom among corona infected patients in our study followed by cough and cold.
Conclusions: Most of Covid-19 patients are asymptomatic and diagnosed during screening. Among Covid-19 patients, most common symptom is fever followed cough and cold. As most of the patients are asymptomatic, screening of community is important tool to prevent the infection and break the spread among community.
Key words: Covid-19, Rapid Antigen test, Symptoms

I. INTRODUCTION

The virus is typically rapidly spread from one person to another via respiratory droplets produced during coughing and sneezing. It is considered most contagious when people are symptomatic, although transmission may be possible before symptoms show in patients. Time from exposure and symptom onset is generally between two and 14 days, with an average of five days. Common symptoms include fever, cough, sneezing and shortness of breath. Complications may include pneumonia, throat pain and acute respiratory distress syndrome. Currently, there is no specific antiviral treatment or vaccine; efforts consist of symptom abolition supportive therapy. Recommended preventive measures include washing your hands with soap, covering the mouth when coughing, maintaining 1-meter distance from other people and monitoring and self-isolation for fourteen days for people who suspect they are infected.[5] The standard tool of diagnosis is by reverse transcription polymerase chain reaction (rRT-PCR) from a throat swab or nasopharyngeal swab. The infection can also be diagnosed from a combination of symptoms, risk factors and a chest CT scan showing features of pneumonia.[6]

II. MATERIALS AND METHODS:

This study was carried out in Corona Testing Lab by using Rapid antigen card test(Standard Q COVID-!9 Ag, Manufactured by SD Biosensor) in Department of Pathology, Central Hospital Ramgarh, Jharkhand. This was a Retrospective study. A total of 350 patients were screened with or without symptoms for corona testing by Rapid antigen testing and data was analyzed with respect to symptoms and outcome of results.

Specimen collection and preparation:

Nasopharyngeal swab is taken from surface of posterior nasopharynx and specimen is tested as soon as after collection of the sample. Specimen can be kept for one hour at room temperature and 2-8 degree C for 4 hrs in case of delayed testing.

Principle of the test:
Rapid card test detects SARS-CoV-2 antigen.

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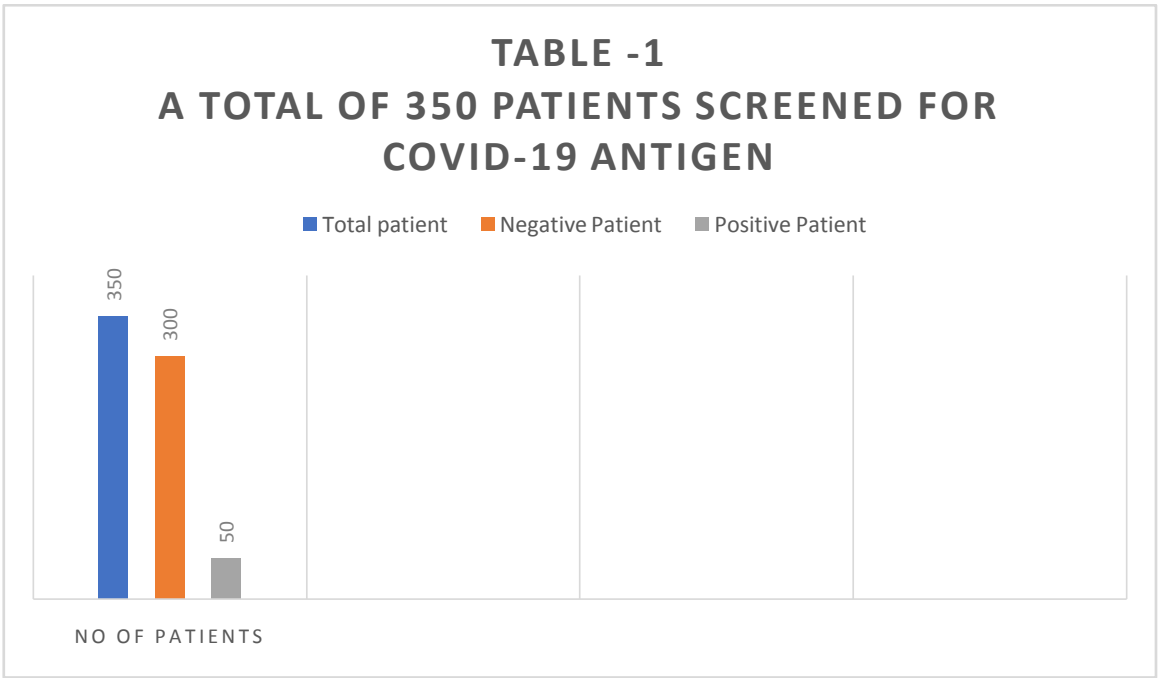
Testing procedure:
Sample is collected by Inserting a sterile swab into the nostril of the patient, swab over the surface of the posterior nasopharynx.
Then insert the swab into an extractionbuffer tube. Before squeezing the buffer tube, stirthe swab more than 5 times.
Remove the swab by squeezing the sides of the tube to extract the liquid from the swab.
Apply 3 drops of extracted specimen to the specimen well of the test device and read test result in 15-30 minutes.

Interpretation of results:
If Colour band develops in both test and control- Test is considered asPositive
If Colour band develops only in control line- Test is Negative
If Colour band does not develop in either control as well as test- Test is Invalid

Limitations of the test:
Neither the quantitative value nor the rate of SARS-COV-2 antigen concentration can be determined by this qualitative test.
Children tend to shed virus for longer periods of time than adults which may result in differences in sensitivity between adults and children.
A negative result may occur if the concentration of antigen in specimen is below detection limit of the test.
The sensitivity of STANDARD Q COVID-19 Ag is 96.52% while specificity is 99.68%

III. RESULTS-

A total of 350 patients were screened for Covid-19 infection during the study period in which 50 patients were tested positive for Covid-19 Ag while 300 patients were tested negative as shown in [Table 1]
Out of 350 patients, 90 patients were symptomatic which constitute 26% of total patients while 260 patients were asymptomatic which constitute 74% of total patients as shown in [Table-2]
Among symptomatic Covid-19 positive patients, most common symptom was fever which constitute 40% of patients followed by cough and cold which constitute 34% as shown in [Table-3]
Among negative Covid-19 Ag symptomatic patients, most common symptom as fever which constitute 50% followed by cold and cough which constitute 37% of total patients as shown in [Table-4]



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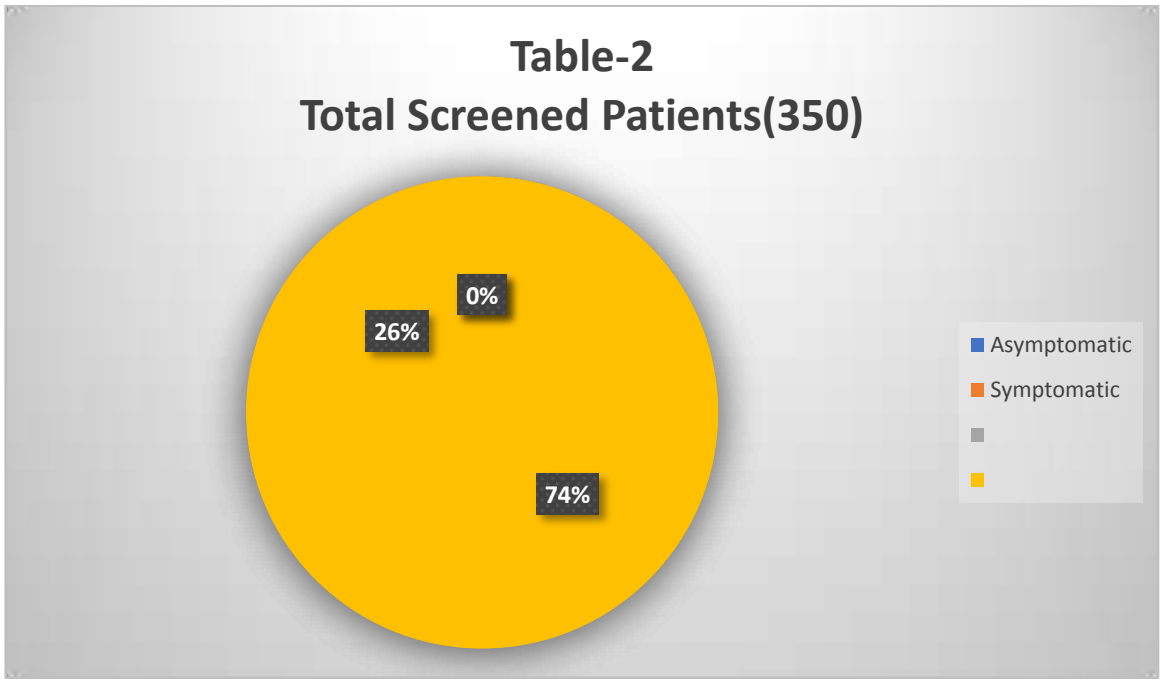

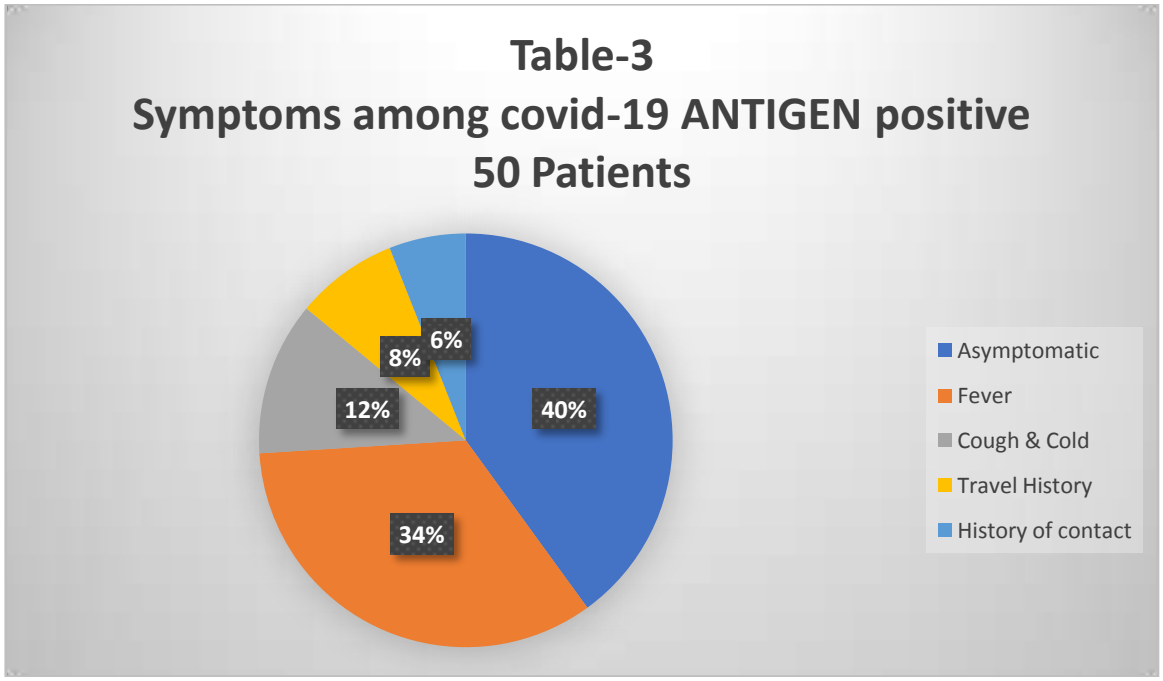

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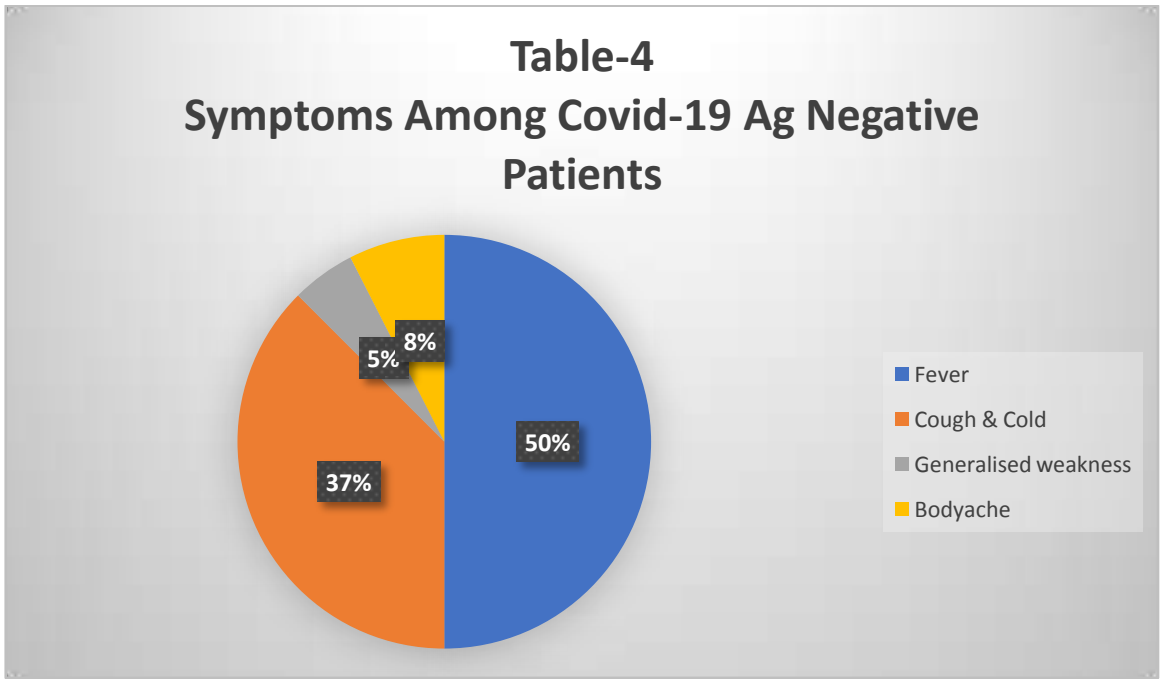

IV. DISCUSSION

Study done by Bendix A[7]of nearly 140 patients at the Zhongnan Hospital of Wuhan University identified different types of symptom, which lead to a disease known as COVID-19. 99% of the patients developed a fever with extremely high temperature, while more than half experienced fatigue and a dry cough. One-third of the patient developed a dry cough and difficulty in breathing.

Study done by Lupia T et al[8] and Yang Y et al[9], the main symptoms are reported is fever followed by cough. There are no specific clinical features that can yet reliably distinguish COVID-19 from other viral respiratory infections. Other, less common symptoms have included headaches, sore throat, and rhinorrhea. In addition to respiratory symptoms, gastrointestinal symptoms (e.g., nausea and diarrhea) have also been reported, and in some patients they may be the presenting complaint. Respiratory droplet transmission is the main route and it can also be transmitted through person-to-person contacts by asymptomatic carriers.

Recently, individuals with asymptomatic infections were also suspected of potentially transmitting infections, which further add to the complexity of disease transmission dynamics in COVID-19 infections.[10]

In our study, most of the Covid-19 infected patients were asymptomatic and most common symptoms were fever followed by cold and cough. Only 6% patients have history of contac.

V. CONCLUSION

Most of Covid-19 patients are asymptomatic and diagnosed during screening. Among Covid-19 patients, most common symptom is fever followed cough and cold. As most of the patients are asymptomatic, screening of community is important tool to prevent the infection and break the spread among community.

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