

 <p>ISSN NO. 2320-5407</p>	<p>Journal Homepage: -www.journalijar.com</p> <p>INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)</p> <p>Article DOI:10.21474/IJAR01/12069 DOI URL: http://dx.doi.org/10.21474/IJAR01/12069</p>	 <p>INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR) ISSN 2320-5407</p> <p>Journal Homepage: http://www.journalijar.com Journal DOI:10.21474/IJAR01</p>
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RESEARCH ARTICLE

ASYMPTOMATIC COVID-19 CARRIERS: A QUANDARY FOR FAMILY PHYSICIAN

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Manuscript Info

Manuscript History

Received: 15 September 2020

Final Accepted: 18 October 2020

Published: November 2020

Key words:-

COVID-19, SARS CoV-2, Infection,
Asymptomatic, Family Physician

Abstract

The current COVID-19 pandemic that started in Wuhan, China, in December 2019, infect millions globally so far. The disease is caused by an RNA virus called severe acute respiratory syndrome corona virus-2 (SARS CoV-2). The common presenting symptoms include dry cough, fever, sore throat, and malaise. A proportion of patients remain asymptomatic throughout infection. Likewise, pre-symptomatic, asymptomatic patients act as carriers that can infect others. These patients pose a management challenge for family physicians working at the primary care level. Herein we report an asymptomatic carrier of COVID-19 who presented to the primary care center for routine follow-up that confirmed by RT-PCR test.

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Introduction:-

The ongoing pandemic of COVID-19 caused by SARS-CoV-2 affects millions globally. As of December 1, 2020, worldwide confirmed infections are over 63 million in 218 countries, territories, and two international conveyances¹. The disease brought unprecedented challenges to the healthcare sector. The presentation of COVID-19 clinical manifestations varies among individuals ranging from pre to symptomatic or asymptomatic at all. Presymptomatic or asymptomatic patients are considered as the main source of COVID-19 transmission. Not only these individuals are a silent source of disease transmission but it is a great challenge for healthcare workers in their day-to-day clinical practice. Due to their asymptomatic nature of the disease, these individuals either don't seek healthcare services or if they seek medical advice for any other health-related issue, they unintentionally not bring in the notice of the treating physician unless asked otherwise. Herein, we report a case of COVID-19 that remained asymptomatic during his course of illness and consequently infect his family.

Case Presentation:

A 45 years old male, a known patient of hypertension, presented to the primary care clinic for routine follow-up. There was no history of any other illness. An in-depth history of the patient revealed a friend visit, a week ago that was positive for COVID-19 which he knew latter by RT-PCR during screening. Clinical evaluation under COVID-19 protocol was insignificant. The patient vitals were: Temp. 37.2°C pulse 81/min, BP 148/90 mmHg. Laboratory workup was within normal limits except for lipid profile: total cholesterol 245 mg/dL, LDL 169 mg/dL, HDL 65 mg/dL. The requested chest x-ray shows no abnormal findings (Fig-1)

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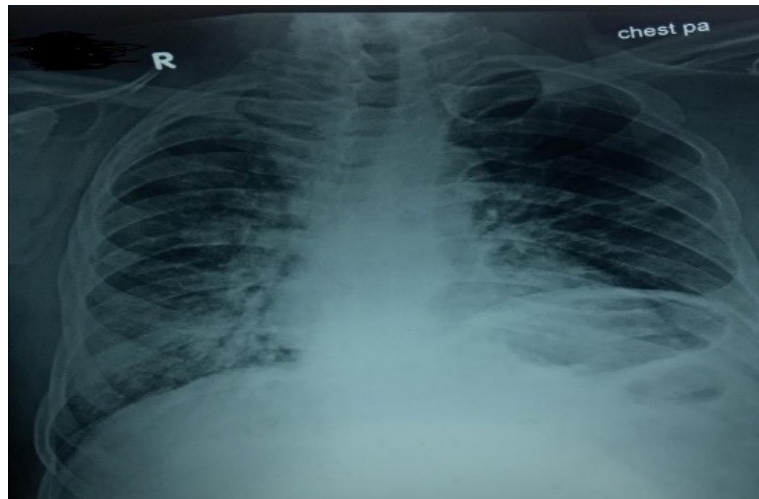


Fig 1:- CXR PA view.

The patient was advised for nasopharyngeal swab sample for RT-PCR and home isolation. Upon a positive result of RT-PCR for the patient, his wife and children were asked for the COVID-19 test. His wife's nasopharyngeal swab result confirmed SARS CoV-2 infection and children's were negative at this point. Tele-advice has given to the patient, to quarantine his family, and to call if any symptom arises. The patient was followed frequently via teleconsultation for the next ten days. Fortunately, the patient remained asymptomatic throughout the infection.

The publication of this case highlights the notion that asymptomatic and patients with pre-symptomatic COVID-19 may pose a management quandary for primary care physicians working at the primary level. Therefore, physicians should focus on an in-depth interview of each visiting patient specifically focusing on any history of contact and follow the standard operating guidelines.

Discussion:-

Since the start of the COVID-19 pandemic, the number of infections is increasing on daily basis. The cross infections by the asymptomatic or pre-symptomatic carriers are a constant threat and a hidden source of virus transmission. Our case is in concordance with the report of asymptomatic transmission by Rothe² et al. and Zhu³ et al. In a family in Zhejiang China, Qian⁴ et al, reported transmission of COVID-19 through a pre-symptomatic couple who visited a temple to attend a festival. There was a person to person transmission in the incubation period of the infection called by the authors as "silent patients. Despite isolated asymptomatic case reports, there are a large number of asymptomatic COVID-19 carriers in population-based studies. The prevalence of asymptomatic patients reported varies in different studies. In a study in Saudi Arabia by Alsofayan⁵ et al, asymptomatic patients constitute 9.3% of the studied population which is less than the asymptomatic patients on Diamond Princess Cruise in Japan, where 50% of the patients were asymptomatic in a study by Kenji and colleagues.⁶ Another study in a hemodialysis unit in Germany by Albalade et al⁷, found 40.5% of their patients were asymptomatic and stressed the need for early detection of asymptomatic patients. According to a recent review by Oran & Topol⁸, the prevalence of asymptomatic carriers accounts for 40-45% and could transmit infection beyond 14 days. In light of the COVID-19 pandemic and constrain on hospitals, most of the healthcare services are directed to primary care that in turn encounter more over the desk consultations and increases the risk of exposure to pre-or asymptomatic patients.

Conclusion:-

In the current pandemic of COVID-19, Family Physicians should be vigilant and to be focused on taking in-depth history including history of contact from each patient irrespective of the presenting symptoms to pick and screen patients of asymptomatic COVID-19.

Ethical approval

Not applicable

Consent:

Written informed consent was taken from patients for publication of their cases.

Conflict of Interest:

The authors declare that they have no conflict of interest.

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