

Atypical Presentation of Novel COVID 19 Disease: A Case Report and our Experience

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Authors' contributions

This work was carried out in collaboration between both authors. Author IOA designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Authors IOA and TOO managed the analyses of the study. Author IOA managed the literature searches. Both authors read and approved the final manuscript.

Article Information

Editor(s):

- (1) Dr. Hab. Mariusz Cycon, Medical University of Silesia, Poland.
(2) Dr. Karthik Yadav Janga, Bayer Healthcare, USA.

Reviewers:

- (1) N. Kosalai, Pondicherry University, India.
(2) Santosh Kumar Swain, Institute of Medical Sciences and SUM Hospital, Siksha 'O' Anusandhan (Deemed to be University), India.
(3) Edlaine Faria de Moura Villela, Federal University of Goiás, Jataí, Brazil.
Complete Peer review History: <http://www.sdiarticle4.com/review-history/59400>

Case Study

Received 11 July 2020
Accepted 07 August 2020
Published 19 August 2020

ABSTRACT

Introduction: COVID 19 virus infection commonly presents with respiratory symptoms which has posed a serious public health concern due to its mode of transmission from direct contact. A different mode of presentation was noticed in our establishment which appeared atypical.

The Aim: The aim of this report is to show this atypical presentation of the novel corona virus disease, its impact in our environment and possible solution.

Presentation of Case: This is a male 60 year old, who presented with anterior neck wound and unconsciousness of 2 weeks duration associated with fever, which was unremitting despite high dose antibiotics. He tested positive to COVID 19 virus disease, exposing all the managing team to risk of the infection.

Discussion: All the exposed health workers tested negative, but the spouse of the patient was COVID 19 positive, this shows the importance of use of protective gadgets against COVID 19 virus infection.

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Conclusion: COVID 19 infection presentation can be atypical. All patients should be regarded as carriers until proven otherwise.
The solution to reduce exposure of many staff to this disease is screening of every patient at presentation.

Keywords: Atypical; presentation; Novel COVID-19; case; report; experience.

1. INTRODUCTION

The novel corona virus disease emerged in 2019 [1]. This gave the corona virus disease the acronym, COVID 19 [2]. This novel corona virus disease is caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) [1,2]. COVID -19 viruses are RNA viruses whose genetic recombination has led to novel corona virus pathogens. The mode of spread of this virus is through respiratory droplets at close contacts. The range between the contacts is 6 feet and with exposure duration of 15 minutes. In the air, coronavirus remains transmissible as aerosols for many hours while those that land on surfaces of objects remain infectious for several days [1,2]. The median incubation period is between 5.1-5.2 days. The asymptomatic phase is from 2 to 14 days. Earlier researchers noted that in 97.5% of individuals symptoms develop within 8 -15 days [1].

COVID -19 virus disease may be asymptomatic [3]. It may as well result to an acute respiratory syndrome presenting as fever, difficulty in breathing and cough [1,2,3]. This disease may lead to pneumonia, acute respiratory distress syndrome, multiple organ failure or death [1, 2, 3].

COVID - 19 virus test is done using a real-time polymerase chain reaction [4]. Three sample swabs collected from the nasopharyngeal region, oropharyngeal swabs or bronchoalveolar sputum / lavage are used [1].

There is no known definitive treatment for COVID 19 infection [5].

Its management is supportive [1,2,5].

The first case began from Wuhan in China and spread to involve almost the whole world [6]. This pandemic was noticed in November 2019, hence the name, COVID 19 virus [7]. The clinical presentations of this COVID 19 infection is still under study [8]. An atypical presentation was observed in our ear, nose and throat section of our health establishment. This is the first of its kind in our centre, necessitating this report.

2. AIMS

- 1) The specific aim of this report is to show the atypical type of presentation of COVID – 19 Virus infection in our department.
- 2) The objectives are to re-emphasize the need to consider every patient as a carrier of COVID – 19 infection,
- 3) To show the impact of exposure of staff to COVID 19 positive patient; and to proffer solutions to reduce the number of exposed staff.

3. PRESENTATION OF CASE

This is a case of a 60 year old pastor, who presented with 2 weeks duration of anterior neck wound, fever and loss of consciousness of 2 days duration.

The neck wound developed from a neck swelling noticed after having left lower tooth extraction from a tertiary hospital in Lagos State of Nigeria. This was associated with suppuration from the area of tooth extraction.

There was history of high grade fever which began 2 days prior to presentation in our suit. Patient was noticed not to be responding to calls and conversations by the relatives same time.

He is a known hypertensive on antihypertensive drugs but not compliant with his drugs. He was not a known diabetic.

He was initially admitted and being managed at the centre where he had tooth extraction following facial fullness post extraction but discharged himself against medical advice from the centre.

On examination at presentation in the emergency room of our University of Medical Science Teaching Hospital, Ondo complex, he was elderly looking, unconscious, with a Glasgow coma score (GCS) of 9/15. He was febrile with a temperature of 38.5⁰ Celsius. He was not in any obvious respiratory distress. His pupils were approximately 4mm dilated and reactive. He had positive Brudzinski and Kerning's sign.

Neck examination showed an anterior neck ulcer, dirty, roughly roundish, with flat edges and filled with granulation tissues, extending from the laryngeal prominence to the suprasternal notch, measuring 8cm x 10cm in its widest diameters.

There was neck stiffness.

Due to the worldwide corona virus pandemic protocol of clinical examination by the Otorhinolaryngologists' associations, oral cavity and oropharyngeal examination was suspended [9,10,11].

His Chest was clinically clear.

Computed Tomographic Scan of the brain and neck showed features of meningeal irritation and no evidence of deep neck space abscess respectively. (See Figure 1).

Chest X ray was grossly normal.

Blood investigations revealed elevated white blood cells $13 \times 10^9/\text{mMol}$ with Neutrophilia of 85% and Packed cell volume of 38%. Random blood sugar was 109mg/dl. (See Illustration box 1 below)

A diagnosis of Necrotizing Fasciitis and Meningitis was made.

He was admitted into the ward and co-managed conservatively with the Neurologists, cardiologists and later respiratory physicians.

Among other supportive drugs and care, he was receiving high dose parenteral Rocephin which was changed to Meropenem on account of persistent fever.

The neck ulcer was conservatively managed.

There is no evidence of abscess in the sinuses, brain and deep neck spaces. In Figures. 1d and 1e, there is loss of cerebral sulci and gyri

suggestive of cerebral edema which is in keeping with meningitis.

While in the ward he was noticed to have difficulty in breathing, he kept desaturating in the range of 88% to 90%. (See illustration box 1 below). Anaesthetists reviewed for possible intubation and transfer to the Intensive Care Unit. These new signs and symptoms were the pointer for Novel Corona virus –19 screening, which was done and the result came out POSITIVE.

The National Centre for Disease control, NCDC, Ondo West Chapter was notified of his case. He was subsequently transferred to ONDO state Isolation Designated Hospital.

4. DISCUSSION

4.1 Atypical Type of Presentation of COVID – 19 Virus Infection in Our Department

Usual symptoms of COVID – 19 disease are fever, cough and other respiratory symptoms.

The main symptoms this patient presented with in our centre were neck wound following tooth extraction, high grade fever and unconsciousness. These were atypical symptoms. They point more to deep neck abscess.

Unconsciousness was also noted in a similar study by Singhania et al. [12]

4.2 The Possible Solution to Reduce the Number of Staffs Exposed to COVID – 19 Virus Positive Patient

The solution to this is to ensure screening of all patients presenting at Accident and Emergency rooms.

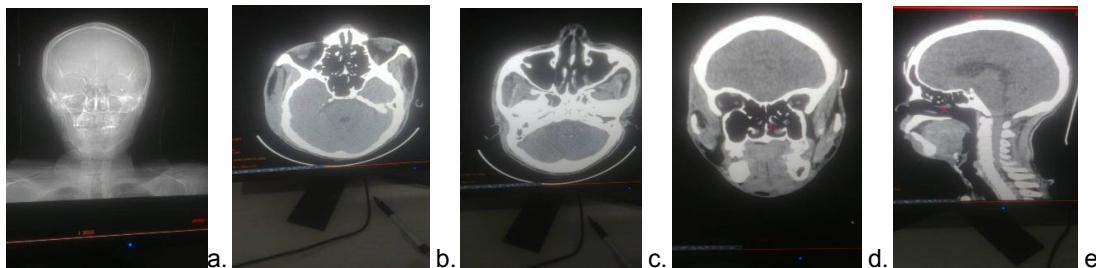


Figure 1: Computed tomographic scan of the 60 year old male, who presented with anterior neck wound and unconsciousness, who tested positive to COVID 19 virus infection

Illustration box 1. Investigations done prior to referral to covid – 19 designated isolation centre

Test	Results	Specific result
Computed tomographic scan of the brain and neck	Features of meningeal irritation	No brain abscess
CHEST X RAY	Appeared normal	No deep neck abscess
Random blood sugar	109mg/dl	No pleural effusion
Full blood count	white blood cells	13 x 10 ⁹ /mMol
	Neutrophilia.	85%
	Packed cell volume	38%.
Malaria parasite	Malaria parasite seen	++
SPO2	88% to 90%	-
Polymerase Chain reaction (PCR)	SARS-CoV-2	(COVID 19 POSITIVE)

Illustration box 2. Precautions taken by the managing health workers⁴

Specialty	Hand wash	Use of sanitizer	Use of surgical face mask	Use of N95 face mask	Use of disposable surgical gloves	Use of Face shield
Emergency room medical officers	Yes	Yes	Yes	Yes	Yes	Yes
Otorhinolaryngologists	Yes	Yes	Yes	Not available	Yes	Yes
Internal physicians	Yes	Yes	Yes	No	Yes	Yes
Maxillofacial surgeons	Yes	Yes	Yes	No	Yes	No
Anaesthetists	Yes	Yes	Yes	Yes	Yes	No
Nurses	Yes	Yes	Yes	No	Yes	No
Janitors (Cleaners)/ health assistants	Yes	Yes	Cloth face mask	No	Yes	No

This patient presented first at the emergency room. The NCDC and government need to provide enough screening materials so that all patients presenting at the emergency rooms should be screened at the spot. This will help for prompt detection of the COVID – 19 infection and early referral to the designated isolation centres and early commencement of care according to the COVID – 19 infection management protocol. It will also reduce the number of medical staffs exposed to the COVID – 19 positive patients. Furthermore, exposed staff will be isolated early and adequately taken care of. This patient's atypical presentation buttresses the fact that all patients should be suspected to be COVID – 19 infection carriers until proven otherwise.

4.3 Exposure to Other Inmates in the Ward

This patient was transferred and managed conservatively in the ward based on the presenting symptoms which were atypical for

COVID 19 virus infection. This exposed other patients in the same ward with him to the COVID 19 virus infection. These patients are at risk of being infected; worst so, for any patient with other co- morbidities and immune-compromising states. Early screening at the admitting point is the key.

4.4 Reduction of Number of Hospital Human Resources Exposed

This COVID – 19 Virus infected patient at presentation was managed by the medical officers. He subsequently was reviewed by the Ear, Nose and Throat Surgeons, Maxillofacial team, Internal medicine Physicians and Anaesthetists. Nurses, cleaners and health assistants in charge of the emergency room and surgical ward where the patient was cared for, were all exposed to this deadly COVID – 19 Virus infection. The hospital management had to go through the whole lot of struggle of contact tracing to assemble all exposed staff for

screening. This would have been averted by mere screening of this patient at the spot of presentation at the emergency room.

4.5 Psychological Trauma to Health Care Givers

The news of the patient testing positive to COVID – 19 pandemic Virus was devastating. This puts the health workers through psychological stress. The thought of being quarantined or isolated on account of professional hazard in taking care of patients who eventually are found positive to the COVID – 19 Virus, causes psychological trauma. This is worse when the entire family of the health worker has to go through screening and isolation. This destabilizes the family in its entirety.

4.6 Shortage of Revenue to the Health Establishment

All the exposed health workers had to embark on 2 weeks self-isolation and monitoring of symptoms. This involved all the exposed medical officers, ear nose and throat surgeons, internal physicians, anaesthetists, maxillofacial team, Nurses, health assistants and janitors. Absence of these personnel reduces the productivity of the hospital and cause a dip in the internally generated revenue of the establishment. All these would have been prevented if this patient was screened at presentation exposing just a few staff.

4.7 Observed Errors in Screening Techniques

All the screening personnel were well protected with their personal protective equipment (PPE). However, the samples should be collected under aseptic techniques. Oropharyngeal and Nasopharyngeal samples should be collected under direct vision. Spatula is needed to depress the tongue to visualize the oropharynx and specifically collect sample from the oropharynx. All these techniques will help to prevent false negatives.

4.8 Risk of Epistaxis

The twisting or turning of the swab stick on the mucosa of the nasopharyngeal wall blindly can provoke Epistaxis. A trained specialist in management of Epistaxis should be part of the screening team.

4.9 All Exposed Staff Tested Negative

All the managing staff, who attended to this COVID 19 virus infection positive patient were protected with face mask [13] and hand gloves while rendering care to him. (See illustration box 2 above).

This most likely contributed to the result of the COVID – 19 Virus screening of the staff which was negative for all screened. This re-emphasizes the need to wear face mask and gloves to protect against COVID – 19 Positive patients.

5. CONCLUSION

The novel COVID – 19 Virus infection is still under study, much is still unknown about it, it can present atypically as neck wound and loss of consciousness. Exposure to COVID-19 positive patient can have devastating impact on the health system.

6. RECOMMENDATIONS

We therefore recommend that the government and stakeholders should provide adequate number of screening kits to ensure screening of all patients at presentation in the emergency room.

The policy on protective face masks and hand gloves should always be re-emphasized at all levels.

Personal protective equipment should be readily available for extensive and intensive examinations and procedures especially for the Otorhinolaryngologists (Ear, Nose and Throat Specialists) who are at risk of aerosols from the patient's mouth and nose.

More efforts should be added to ensure some finesse in maintaining aseptic techniques during collection of samples for COVID – 19 Virus screening.

Specialists skilled in management of untoward complications from sample collections in the throat and postnasal space should be involved during the COVID – 19 Virus screening exercise. This is because Epistaxis can be life threatening and fatal.

CONSENT

Verbal consent was obtained from patient's relative (because patient was unconscious).

ETHICAL APPROVAL

This study commenced after obtaining ethical approval from Department of Ear, Nose and throat, University of Medical Sciences Teaching Hospital, (UNIMEDTH), Ondo state, Nigeria.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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Peer-review history:

The peer review history for this paper can be accessed here:
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