

Reports of Outbreak of COVID-19 in Wuhan Revisited

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Article Information

Article Type: Review Article

Journal Type: Open Access

Volume: 1 Issue: 1

Manuscript ID: JCV-v1-1112

Publisher: Science World Publishing

Received Date: 22 December 2020

Accepted Date: 07 January 2021

Published Date: 13 January 2021

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Citation:

Bose CK & Basu M (2021). Reports of Outbreak of COVID-19 in Wuhan Revisited. Journal of Corona Virus. 1(1); 1-3

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ABSTRACT

Tragedy of covid-19 is of such an enormous dimension that one wants to leave no stone unturned to investigate how this mishap occurred in the first place. Still it is contemporary hence, before it becomes a faded history it seemed worthwhile to look back and make dairy of events as it was reported to have occurred in such recent past. A few international publications informed us about such a devastating international accident. Author tries to take relook through those reports without any prejudice and tries to find out what actually went wrong that pandemic could not be prevented.

KEYWORDS: COVID-19; Disease; CDC

INTRODUCTION

How Covid-19 is rampaging the world is known to all. The response of USA in first phase of global spread of covid-19 depended a lot on WHO report and action to deal this menace. Reasonably the world leaders are now concerned about whether there was any WHO's high handedness as wrongly reported sometimes in dealing this Chinese provincial fatal pneumonia outbreak. We need to take a fresh and keen look in the incidence as China reported about it to the world. This may clarify the world leaders' and USA's action plan on this issue and create a safe, dependable and secure environment world over.

When atypical pneumonia struck in persons attending Huanan wet market of Wuhan in Hubei province in November/December of 2019 China continued to keep track on it. But we have to depend on the publications those came out from China related to this incidence. Hence, when in early January the news of such disease broke a strict vigil was kept by the author on world literature and journals and in pubmed to detect when they first communicate with the world scientifically about this outbreak. It was very easy to detect their first publication, though online, in 24th January digital edition [1] of New England Journal of Medicine (NEJM) where a full paper came out

from Chinese Centre of Communicable Disease. After reading it some questions arose and I wrote a letter to discuss with the editor of NEJM. Since then I kept on reading it and other couple of early publications to analyze the circumstances and hence this review.

CHINESE CENTRE OF COMMUNICABLE DISEASE

Even before this NEJM brief report was published Tan et al (2020) [2] published novel corona virus genome structure in China CDC weekly (CCDC) volume 2 number 4. They submitted this paper 19th January and it was accepted in 20th January. This journal is just like office/company newsletter. Website of this weekly however did not show any content of their volume 1. Editor in chief is George F Gao, M Phil. He is one of the authors of this article [2] and also NEJM article [1]. They tell they submitted the structure in GISAID (www.gisaid.org) under the accession number EPI_ISL_402119, EPI_ISL_402020 and EPI_ISL_402121. This accession no. however, produced error when access was attempted on 6th May. In this article they informed us that on January 20, 2020 i.e. on the day of publication of this paper, a total of 201 cases of pneumonia in China have been confirmed. On January 3, 2020, the first complete genome of the novel β genus coronaviruses (2019nCoV) was identified in samples of Bronchoalveolar Lavage Fluid (BALF) from a patient from Wuhan by scientists of the National Institute of Viral Disease Control and Prevention (IVDC) which is under Chinese Centre for Disease Control (CCDC) through a combination of Sanger sequencing, Illumina sequencing, and nanopore sequencing.

FRENCH CONNECTION?

Next paper from China (Huang et al 2020) [3] came out in Lancet. Though it's online version was officially published on 24th January but corrected version was made accessible from 30th January. That is why they give 24 January data of more than 800 confirmed cases, including in health-care workers who have been identified in Wuhan. According to them the coronavirus identified might only be "the tip of the iceberg". They even could predict that antibody test should be developed and health care workers should be tested before and after their exposure to 2019-nCoV for identification of "asymptomatic infections". So they were already aware of asymptomatic covid-19, the horrible feature of this disease. In this clinical article they described 59 cases from Wuhan of which 41 cases came positive in NHC Key Laboratory of Systems Biology of Pathogens and Christophe Mérieux Laboratory, Beijing, China. They got samples from patients whose admission data of were from Dec 16, 2019, to Jan 2, 2020. And they submitted the paper at least before 24th January when the paper was published on line and eventually corrected. So it is seen that both governmental IVDC [2] and a family charitable NGO Lab of Mérieux Foundation of Lyon (<https://www.fondation-merieuxusa.org/>) both worked together though there was never a mention on how all these parties

collaborated together and what was their stake in this research. Incidentally this Christophe Mérieux Laboratory was founded by Pasteur's student Mercer Mérieux in 1897 and later developed by his son Charles who died in 2002. This is now a part of Sanofi Pasteur, the vaccine division of MNC giant Sanofi. Both national institute and multinational company were probably involved to set up kit manufacturing after viral genome was defined on 3 January. We don't know this. But this much we know probably together with this MNC/charity made huge production that by 24 January they and WHO were confident to have necessary supply for whole world. CCDC got involved in cell culture experiment described in first published NEJM [2] paper which would have taken them at least 10-15 days because assay required three passages of viral solution being added to respiratory apical epithelial cell culture, each phase taking 96 hours. They could never set up kit even before they could prove that the genome of covid-19 which they defined from lavage are from that virus which was causing this infection before their detection under EM of cultured cells? So how did they complete everything within such a short time is a point to ponder.

WUHAN MUNICIPAL PEOPLE'S GOVERNMENT

If we critically examine the first article published internationally [2] from China in NEJM of 24 January we can assume that peer review must have been completed at least before that date. But the chronology of events as reported and date of experiments did not go well along the required minimum time for experiments described and different Chinese local governmental notifications referred. Moreover, notifications by WHO was also not serving the chronology published. The study being authentic Chinese governmental scientists' report confusion in chronology of dates of occurrence of this dreadful outbreak may denote some kind of miscommunication that needs clarification.

The article [2] describes investigation by Chinese CDC team reaching Wuhan on 31st December. On the same day Wuhan Municipal People's Government, Hubei Provincial Health Commission reports 27 cases of pneumonia by Google translation of Chinese (simplified) [4]. The total experimentation including sample collection, nucleic acid extraction, inoculation of cell culture, viral genome sequencing, though multitasked should have taken at least 10 days. Then they developed primers and standardised assays for targeting ORF1ab, N, and E regions of the 2019-nCoV genome. This was then made commercially available so that by 20th January as per their description 830 cases were detected in Wuhan only, though it is not known how many were tested by that time. Also this data of 20 January is not tallying with Huang et al [3] paper. Wuhan Municipal People's Government, Hubei Provincial Health Commission reports 136 cases on the same day i.e. on 20th January in simplified Chinese [5]. As this article cites this notice

so they must have submitted this article after 20th January and could publish it by 24 January. This number of 136 cases that local government describes does not tally with those described by the authors from Chinese CDC who reports 830 positive cases [2] in Wuhan citing the same circular [5]. These two Wuhan government notices could be accessed on 27 January when I corresponded the editor on this NEJM paper on 28th January. But they are no more accessible at all at present like their GISAID entry which is also not accessible through their given accession number. Implication or cause of this is not understandable. It always shows error. It is better not to tell about WHO much, as they first started publishing their situation report the next day i.e. on 21st January when they report 258 cases in Hubei [6]. Before this however, on 12th January they sketchily announced the beginning of Chinese cases of fatal pneumonia with much praise of Chinese government's effort to contain showing that there is no new case after 2nd January [7]. After their first situation report of 21st January in another week time thousands of detection was done by ready kits and more than 4500 positive cases were detected only in China [7].

GLOBAL IMPLICATION

CCDC submitted sequence information in GISAID and shared assay kit with the World Health Organization. NEJM authors states those kits are intended for surveillance and detection of 2019-nCoV infection "globally and in China" [2]. So the authors knew world has more need for this assay than may be, even China needs it and the proportion of outbreak is that of a pandemic. Only WHO could not understand that. As of the morning of 12 March, there are more than 20000 confirmed cases and there have been almost 1000 deaths in the European Region. Thus after vital delay of about seven weeks' pandemic was announced on 12 March. If China could be cut off from rest of the world at the end January we would not have to see this catastrophe. So rationality might have failed in USA [8] but didn't it fail poorly in world body too?

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