



GLOBAL JOURNAL OF MEDICAL RESEARCH: K
INTERDISCIPLINARY
Volume 22 Issue 3 Version 1.0 Year 2022
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals
Online ISSN: 2249-4618 & Print ISSN: 0975-5888

Assessment of Image of CT Scan for Patient with COVID-19

By Dr. Antesar Rheem Obead, Aminah Kadhum Murad
& Mohend A.N. Al-Shalah

University of Babylon

Abstract- COVID-19 is a virus that can cause disease. Phylogenetic analysis Bats have been discovered to have a full genome sequence, according to research done with available entire genome sequences. The COVID-19 virus reservoir has been identified, however the intermediate host(s) has yet to be identified now. This study was conducted in Marjan Teaching Hospital in Babylon for all patients infected with Covid 19 disease during January of 2022 and their ages were between 30-55, where the diagnosis was made by CT-scan. The reports that I will mention that the new mutation from Corona does not cause severe damage to the lung, and the infection rate is less than 45% in the lung. She also indicated that all patients were exposed to severe diarrhea without losing the sense of smell and taste. From this, we conclude that the new mutations in Covid-19 are Less severe and less severe, and the vaccine reduces a high rate of infection, as most of the vaccinated people had a very weak rate. And here are pictures of the reports of the new mutant from Covid-19 (OMICRON).

Keywords: Covid-19, ct-scan, report.

GJMR-K Classification: DDC Code: 614.57 LCC Code: RC114.5



Strictly as per the compliance and regulations of:



© 2022. Dr. Antesar Rheem Obead, Aminah Kadhum Murad & Mohend A.N. Al-Shalah. This research/review article is distributed under the terms of the Attribution-NonCommercial-NoDerivatives 4.0 International (CC BY-NC-ND 4.0). You must give appropriate credit to authors and reference this article if parts of the article are reproduced in any manner. Applicable licensing terms are at <https://creativecommons.org/licenses/by-nc-nd/4.0/>.

Assessment of Image of CT Scan for Patient with COVID-19

Dr. Antesar Rheem Obead ^α, Aminah Kadhum Murad ^σ & Mohend A.N. Al-Shalah ^ρ

Abstract- COVID-19 is a virus that can cause disease. Phylogenetic analysis Bats have been discovered to have a full genome sequence, according to research done with available entire genome sequences. The COVID-19 virus reservoir has been identified, however the intermediate host(s) has yet to be identified. now. This study was conducted in Marjan Teaching Hospital in Babylon for all patients infected with Covid 19 disease during January of 2022 and their ages were between 30-55, where the diagnosis was made by CT-scan. the reports that I will mention that the new mutation from Corona does not cause severe damage to the lung, and the infection rate is less than 45% in the lung. She also indicated that all patients were exposed to severe diarrhea without losing the sense of smell and taste. From this, we conclude that the new mutations in Covid-19 are Less severe and less severe, and the vaccine reduces a high rate of infection, as most of the vaccinated people had a very weak rate. And here are pictures of the reports of the new mutant from Covid-19 (OMICRON).

Keywords: Covid-19, ct-scan, report.

1. INTRODUCTION

The current pneumonia outbreak, which began in early December 2019 near Wuhan, is caused by a novel coronavirus (CoV) known as '2019-nCoV' or '2019 novel coronavirus' or 'COVID-19' by the World Health Organization (WHO). [1–4] City, Hubei Province, China. COVID-19 is a virus that can cause disease. Phylogenetic analysis Bats have been discovered to have a full genome sequence, according to research done with available entire genome sequences. The COVID-19 virus reservoir has been identified, however the intermediate host(s) has yet to be identified. now. Though three primary areas of work to a other marketplaces in the vicinity, as well as the gathering of thorough details on the origins and types of wildlife species marketed on the Huanan market, and the animals' final destination after the market [5–8] has been completed.

Coronaviruses are naturally divided into four categories that cause gastrointestinal and respiratory infections: Gammacoronavirus, Deltacoronavirus, Betacoronavirus, and Alphacoronavirus [9–11]. The first two types primarily affect birds, while the third and fourth types primarily affect mammals. Human CoVs have

been classified into six categories. These include the Beta corona viruses HCoV HKU1, HCoV-OC43, Middle East Respiratory Syndrome coronavirus (MERS-CoV), Severe Acute Respiratory Syndrome coronavirus (SARS-CoV), HCoV229E, and HCoV-NL63, as well as the Alphacoronaviruses HCoV229E and HCoV-NL63. Coronaviruses were not widely recognized until the 2003 SARS pandemic [12–14], which was followed by the MERS outbreaks in 2012 [15–17] and, most recently, the COVID-19 outbreaks. SARS-CoV and MERS-CoV are highly dangerous viruses that move from bats to palm civets and dromedary camels, and then to humans.

COVID-19 is transferred via dust particles and fomites when people come into close contact with them between the infector and the person who has been infected. COVID-19's airborne distribution has not been recorded, and it is not known to be a substantial transmission engine based on empirical evidence; nonetheless, it is possible that such aerosol-generating organisms could be a significant transmission engine. Medical facilities are used to carry out the procedures. The spread of feces has been observed in a tiny number of clinical cases, and the active virus has been reported in a small number of cases.

Furthermore, it does not appear that the faecal-oral route is a COVID-19 transmission engine; its function and relevance for COVID-19 must be determined. The greatest number of patients (77.8%) for roughly 18,738,58 laboratory-confirmed cases registered as of the second week of April 2020 was between 30 and 69 years of age. 21.6 percent of the cases are farmers or employees by occupation, 51.1 percent are men, and 77.0 percent are Hubei.

However, there are already a lot of worries about the new coronavirus. Despite the fact that it appears to be transmitted to people by animals, it is critical to distinguish between particular animals and other sources, the channel of transmission, the incubation period, the characteristics of the susceptible community, and the survival rate. Despite this, there is currently very little clinical knowledge about COVID-19 disease, and details on age range, the virus's animal origin, incubation time, outbreak curve, viral spectroscopy, dissemination pathogenesis, autopsy observations, and any clinical responses to antivirals are lacking among the serious cases.

Author p: MRCS-FRCS, Department of Surgery, College of Medicine, University of Babylon, Hilla, Iraq.

e-mail: mohend_alshalah2@uobabylon.edu.iq

Corresponding Author α: Babylon University, College of Education, Science Dept., Hilla, Iraq. **e-mail:** Antesar.m2016@gmail.com

II. PATIENT AND METHOD

This study was conducted in Marjan Teaching Hospital in Babylon for all patients infected with Covid 19 disease during January of 2022 and their ages were between 30-55, where the diagnosis was made by CT-scan, where the most important symptoms of the patients were high body temperature, chest pain, Diarrhea, loss of appetite, loss of sense of smell and taste, tiredness, fatigue

a) CT (Computed Tomography) Scan (Philips Brilliance CT 64 slice)

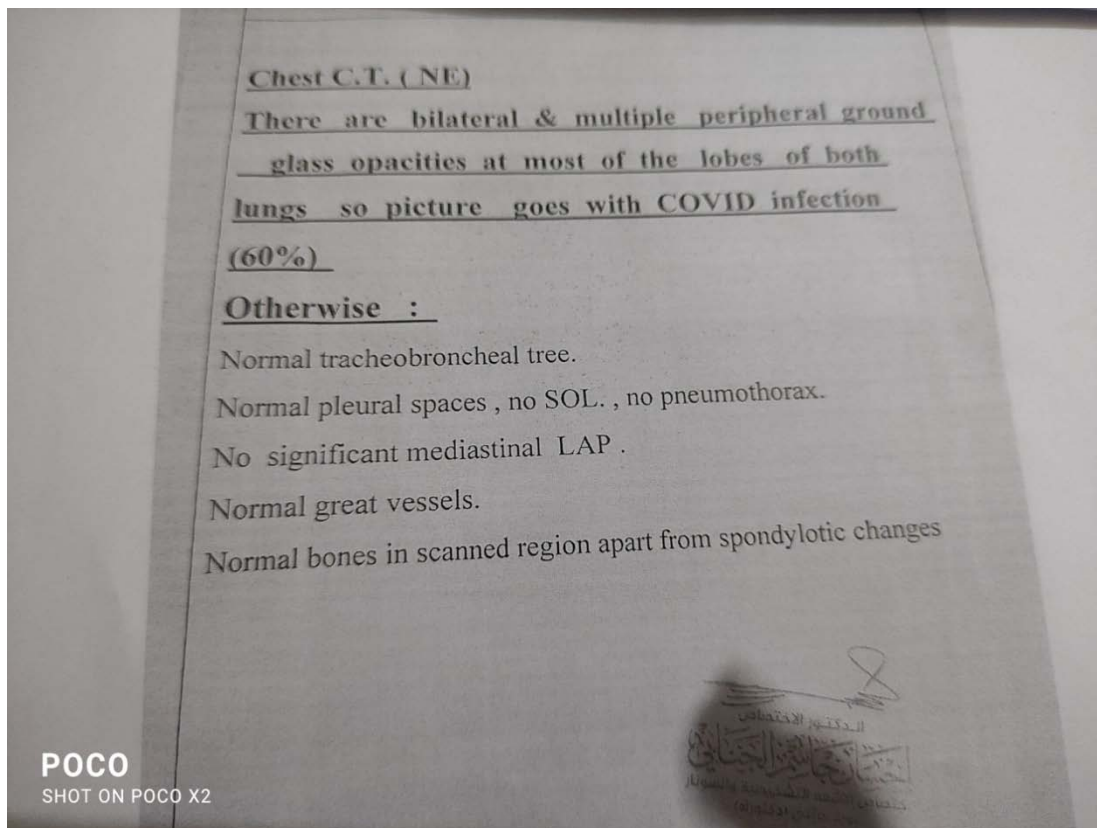
Doctors and other healthcare professionals have years of training in their field, but there are still many things they can't diagnose simply by looking at or listening to your body. Certain medical conditions require a deeper look, usually at the tissues, blood vessels, and bones inside your body. X-rays and ultrasounds can provide some information, but when a more detailed view is required, a computed tomography (CT) scan is usually the next step. In this article, we take a closer look at how a CT scan works, what it's typically used for, and what the procedure is like.

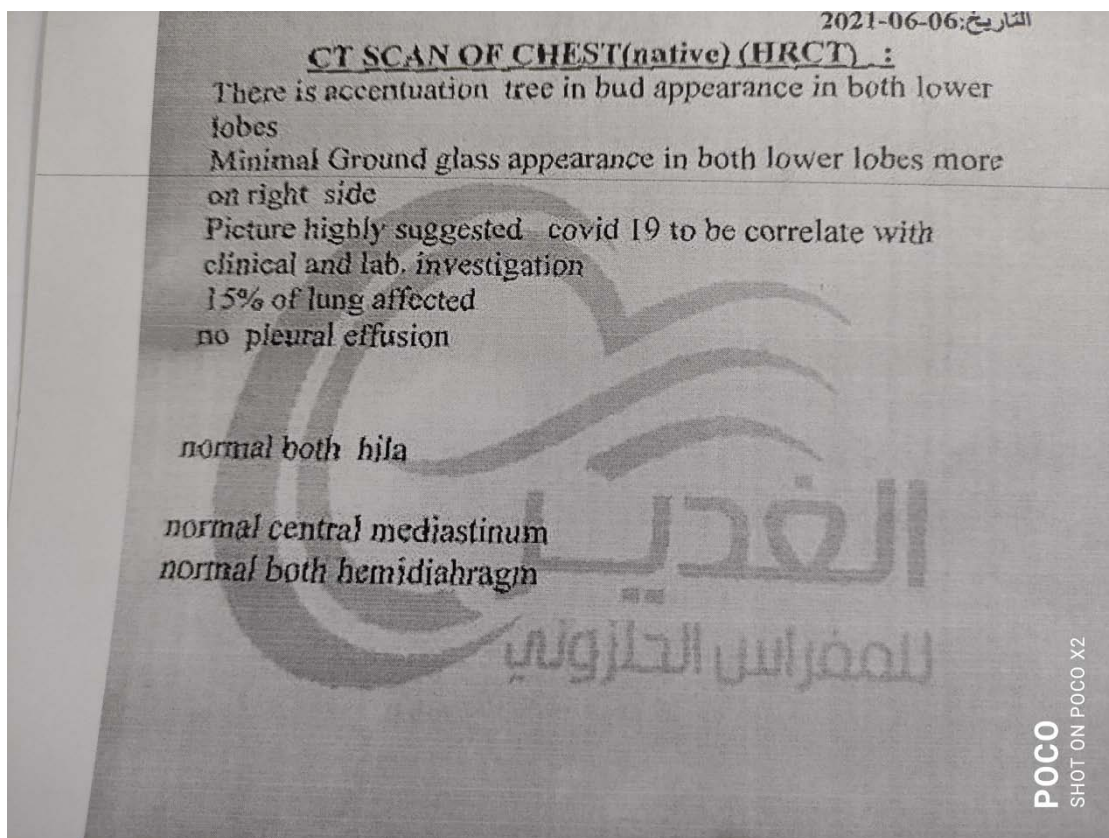
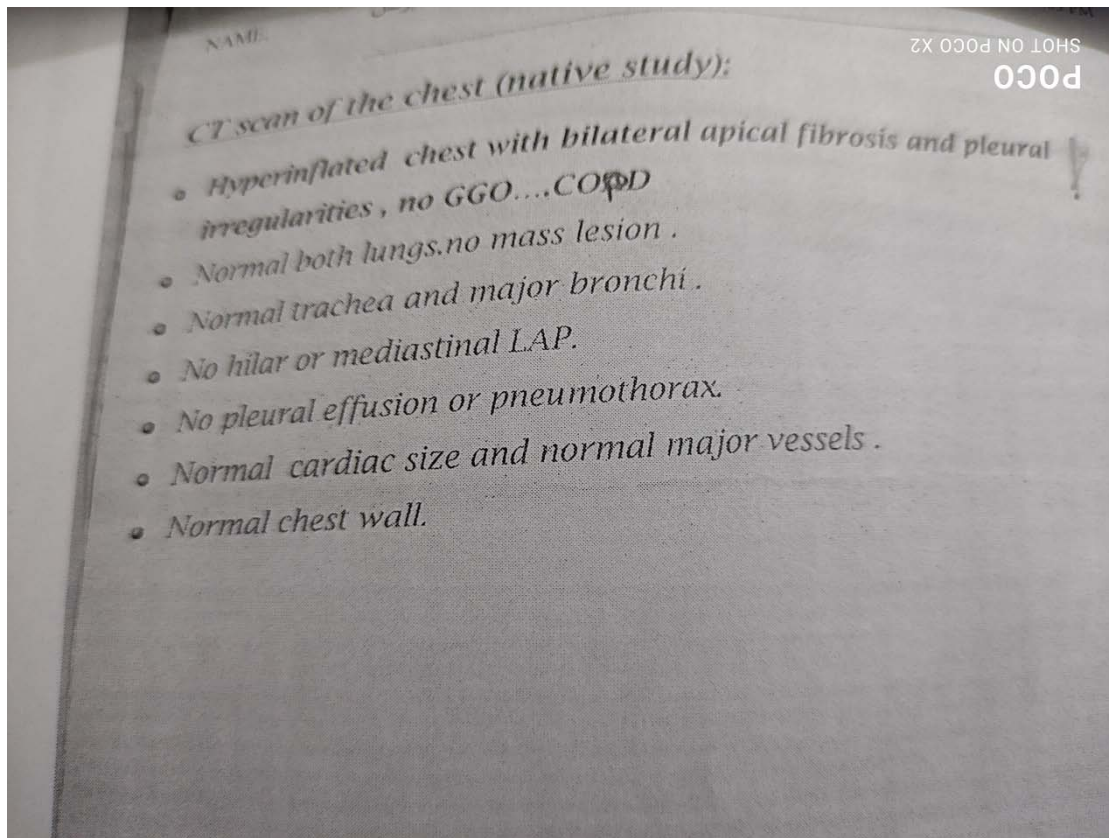
CT scans don't require much preparation. If needed, you can do a CT scan with or without contrast very quickly. In fact, this happens in most cases where a CT scan is needed to diagnose traumatic injuries or a stroke. If you're scheduled for a CT scan with contrast dye, it may help to refrain from eating solid foods for up to 4 hours before your test. This is especially true if your CT scan is being done to get images of your abdomen.

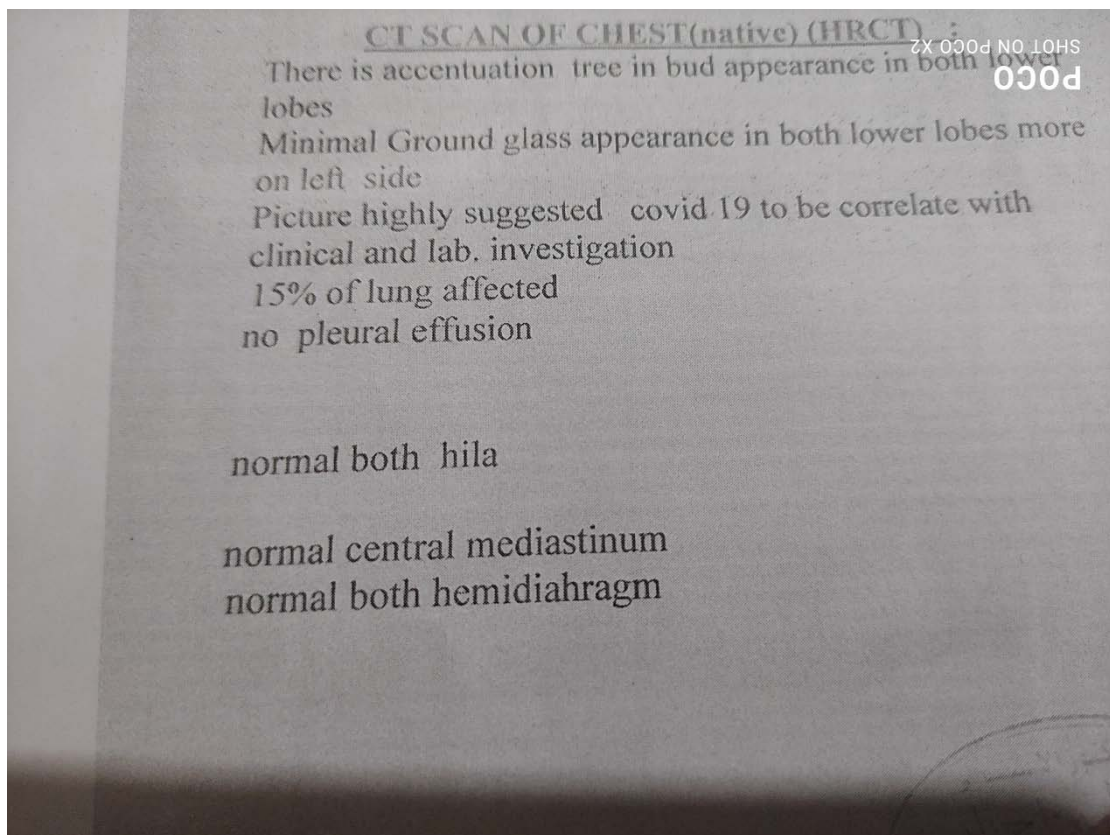
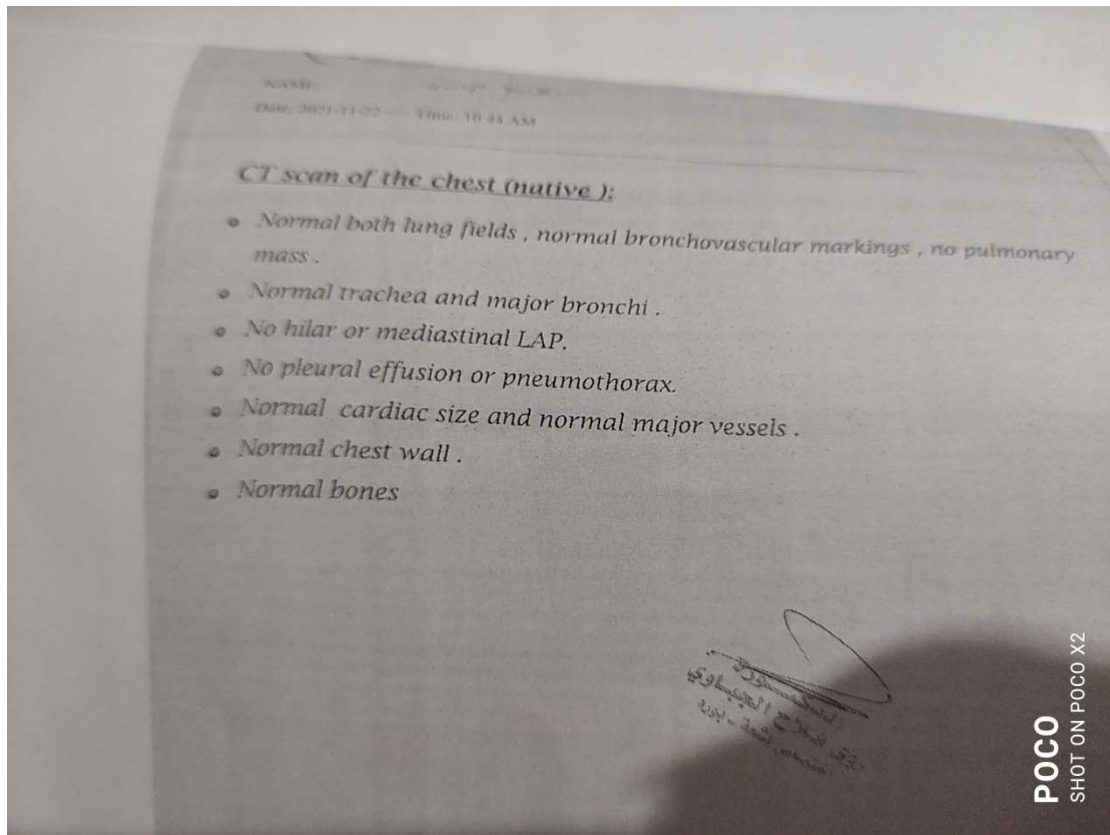
If your doctor is using oral contrast for your CT scan, you'll probably be given the contrast before the day of your scan and instructed on how to prepare and drink it. Generally, you will want to start drinking the solution within an hour or two of your scan, drinking a portion of the solution every 15 minutes. Your doctor or radiologist will give you specific instructions. If you're having intravenous (IV) contrast, a catheter will be inserted into your vein when you arrive at the testing facility. Otherwise, the only preparations you need to take before a CT scan are to remove metallic objects and medication devices from your body.

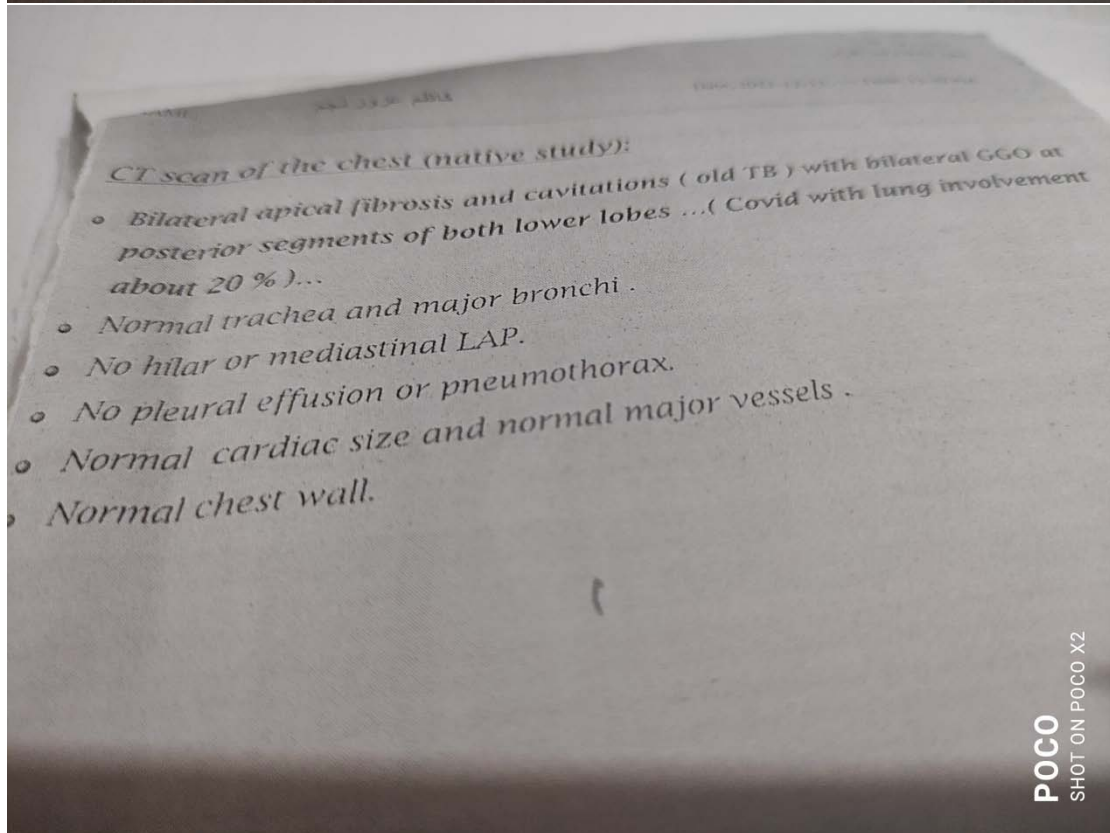
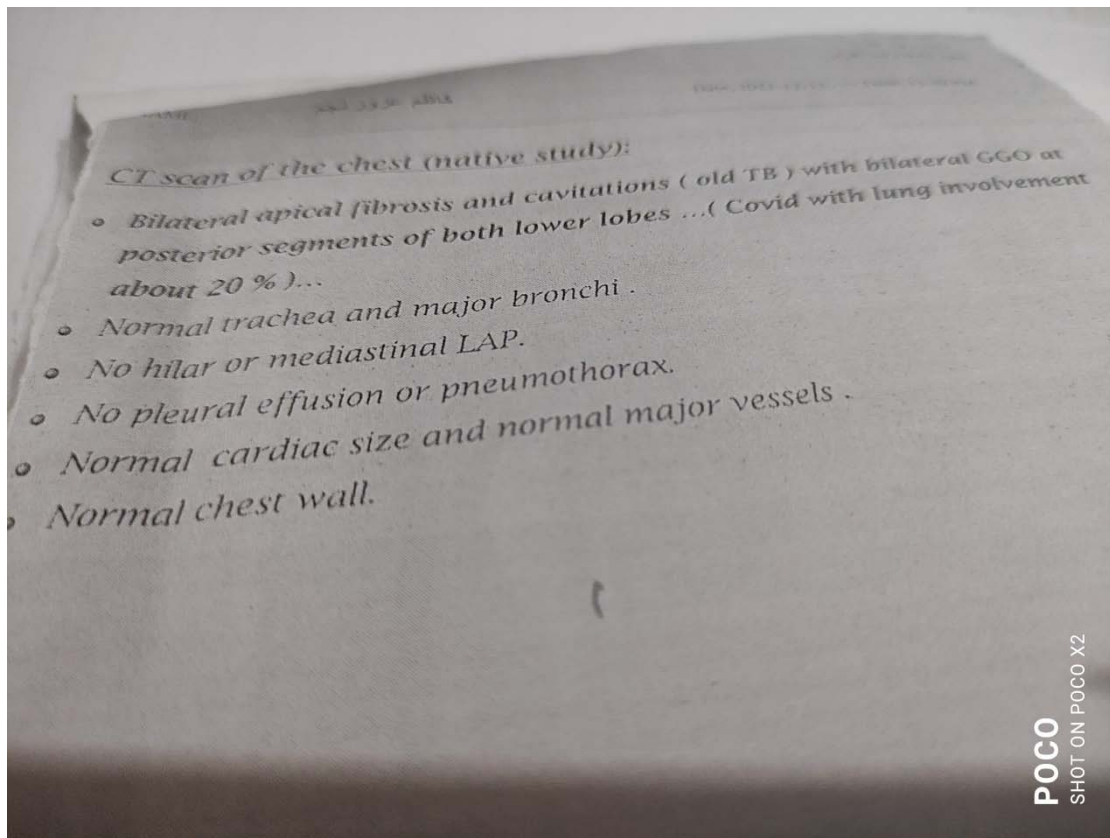
III. RESULT AND DISCUSSION

At the beginning of 2022, most countries were exposed to the new mutation of Covid-19, where the reports of those infected with Covid-19 were collected, and I will present them in the results. It included either lying down and receiving treatment in the hospital or outside it. Through the reports that I will mention that the new mutation from Corona does not cause severe damage to the lung, and the infection rate is less than 45% in the lung. She also indicated that all patients were exposed to severe diarrhea without losing the sense of smell and taste. From this, we conclude that the new mutations in Covid-19 are Less severe and less severe, and the vaccine reduces a high rate of infection, as most of the vaccinated people had a very weak rate. And here are pictures of the reports of the new mutant from Covid 19 (OMICRON).









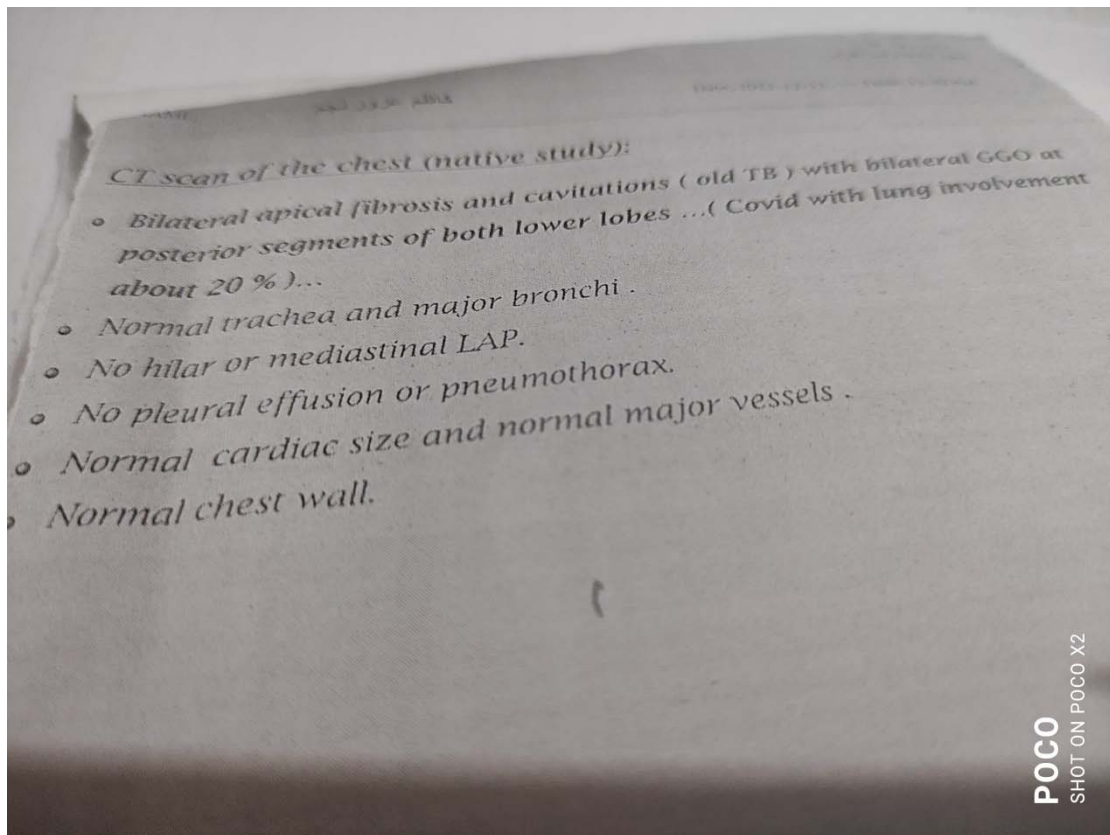
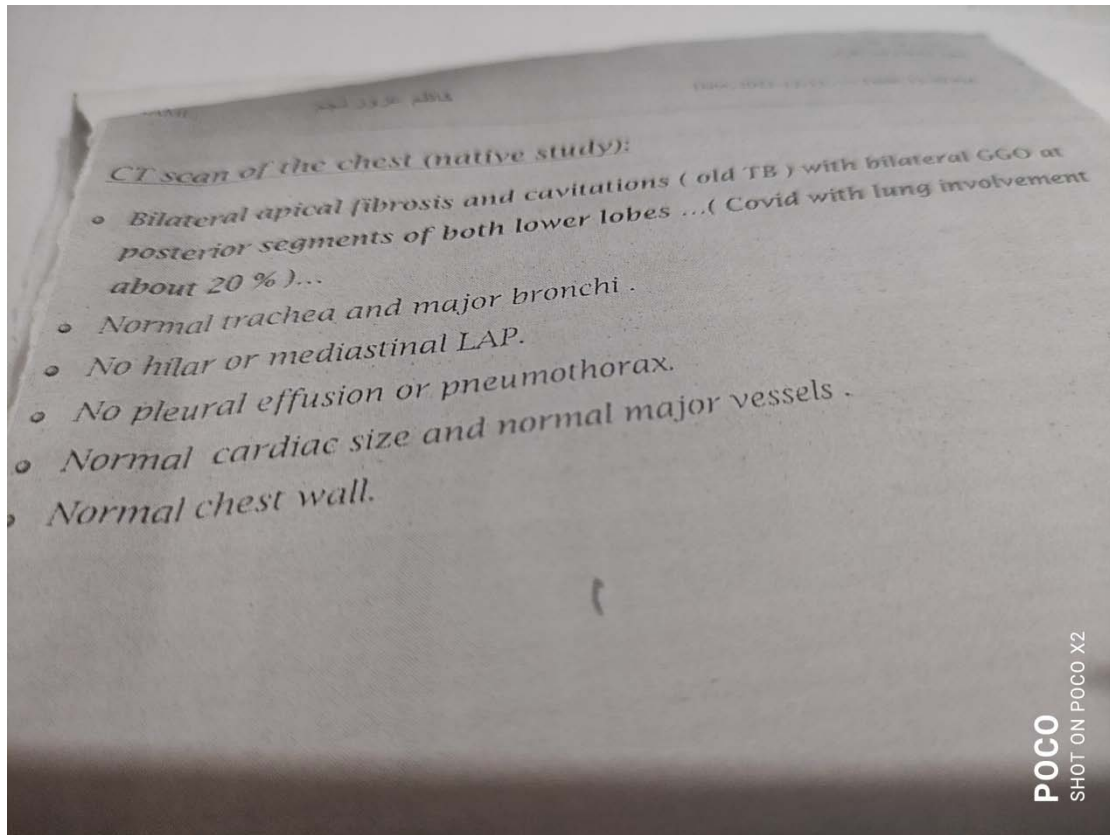
CT scan of the chest (native study):

- Bilateral apical fibrosis and cavitations (old TB) with bilateral GGO at posterior segments of both lower lobes ... (Covid with lung involvement about 20 %)...
- Normal trachea and major bronchi .
- No hilar or mediastinal LAP.
- No pleural effusion or pneumothorax.
- Normal cardiac size and normal major vessels .
- Normal chest wall.

POCO
SHOT ON POCO X2CT scan of the chest (native study):

- Bilateral apical fibrosis and cavitations (old TB) with bilateral GGO at posterior segments of both lower lobes ... (Covid with lung involvement about 20 %)...
- Normal trachea and major bronchi .
- No hilar or mediastinal LAP.
- No pleural effusion or pneumothorax.
- Normal cardiac size and normal major vessels .
- Normal chest wall.

POCO
SHOT ON POCO X2



CT SCAN OF CHEST(native) (HRCT) :

There is accentuation tree in bud appearance in both lower lobes
 Minimal Ground glass appearance in both lower lobes more on left side
 Picture highly suggested covid 19 to be correlate with clinical and lab. investigation
 10% of lung affected
 no pleural effusion

normal both hila

normal central mediastinum
 normal both hemidiahragm

POCO
SHOT ON POCO X2



REFERENCES RÉFÉRENCES REFERENCIAS

1. Hui DS, Azhar EI, Madani TA, Ntoumi F, Kock R, Dar O, Ippolito G, Mchugh TD, Memish ZA, Drosten C, Zumla A. The continuing 2019-nCoV epidemic threat of novel coronaviruses to global health—The latest 2019 novel coronavirus outbreak in Wuhan, China. *International journal of infectious diseases*. 2020 Feb 1; 91: 264-6.
2. Read JM, Bridgen JR, Cummings DA, Ho A, Jewell CP. Novel coronavirus 2019-nCoV: early estimation of epidemiological parameters and epidemic predictions. *MedRxiv*. 2020 Jan 1.
3. Corman VM, Landt O, Kaiser M, Molenkamp R, Meijer A, Chu DK, Bleicker T, Brünink S, Schneider J, Schmidt ML, Mulders DG. Detection of 2019 novel coronavirus (2019-nCoV) by real-time RT-PCR. *Eurosurveillance*. 2020 Jan 23; 25(3):2000045.
4. Fong SJ, Li G, Dey N, Crespo RG, Herrera-Viedma E. Composite Monte Carlo decision making under high uncertainty of novel coronavirus epidemic using hybridized deep learning and fuzzy rule induction. *Applied soft computing*. 2020 Aug 1; 93: 106282.
5. Woodward A. China Just Banned the Trade and Consumption of Wild Animals: Experts Think the Coronavirus Jumped from Live Animals to People at a Market'. *Business Insider Australia*. 2020 Feb; 26.
6. Boseley S. Calls for global ban on wild animal markets amid coronavirus outbreak. *The Guardian*. 2020 Mar; 24.
7. Standaert M. Coronavirus closures reveal vast scale of China's secretive wildlife farm industry. *The Guardian*. 2020 Feb 25; 25.
8. Daly N. Chinese citizens push to abolish wildlife trade as coronavirus persists. *National Geographic*. 2020.
9. Woo PC, Lau SK, Lam CS, Lau CC, Tsang AK, Lau JH, Bai R, Teng JL, Tsang CC, Wang M, Zheng BJ. Discovery of seven novel Mammalian and avian coronaviruses in the genus deltacoronavirus supports bat coronaviruses as the gene source of alphacoronavirus and betacoronavirus and avian coronaviruses as the gene source of gammacoronavirus and deltacoronavirus. *Journal of virology*. 2012 Apr 1; 86(7): 3995-4008.
10. Fong SJ, Li G, Dey N, Crespo RG, Herrera-Viedma E. Finding an accurate early forecasting model from small dataset: A case of 2019-ncov novel coronavirus outbreak. *arXiv preprint arXiv: 2003.10776*. 2020 Mar 24.
11. Ge XY, Yang WH, Zhou JH, Li B, Zhang W, Shi ZL, Zhang YZ. Detection of alpha-and beta coronaviruses in rodents from Yunnan, China. *Virology journal*. 2017 Dec; 14(1): 1-1.
12. Fong SJ, Dey N, Chaki J. Artificial intelligence for coronavirus outbreak. Singapore.: Springer; 2021.
13. Huang Y. The SARS epidemic and its aftermath in China: a political perspective. *Learning from SARS: Preparing for the next disease outbreak*. 2004 Apr 26: 116-36.
14. Hung LS. The SARS epidemic in Hong Kong: what lessons have we learned?. *Journal of the Royal Society of Medicine*. 2003 Aug; 96(8): 374-8.
15. Rajinikanth V, Dey N, Raj AN, Hassanien AE, Santosh KC, Raja N. Harmony-search and otsu based system for coronavirus disease (COVID-19) detection using lung CT scan images. *arXiv preprint arXiv:2004.03431*. 2020 Apr 6.
16. Kim KH, Tandi TE, Choi JW, Moon JM, Kim MS. Middle East respiratory syndrome coronavirus (MERS-CoV) outbreak in South Korea, 2015: epidemiology, characteristics and public health implications. *Journal of Hospital Infection*. 2017 Feb 1; 95(2): 207-13.
17. Sikkema RS, Farag EA, Islam M, Atta M, Reusken CB, Al-Hajri MM, Koopmans MP. Global status of Middle East respiratory syndrome coronavirus in dromedary camels: a systematic review. *Epidemiology & Infection*. 2019; 147.