

„Spikeopatie“ nevysvětluje „nové“ příznaky spojené s COVID-19

<https://www.wherethearethenumbers.substack.com/p/a-closer-look-at-spikeopathy-as-the>

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souhrn

Nedávno se dva z autorů zapojili do konverzace WhatsApp se dvěma „prvními“ lékaři:

Pierre Kory, MD, MPA

1a doktor Jackie Stone²ve kterém se rozhovor soustředil na rozdílné názory na téma, zda je covid-19 „nový a smrtící“ a zda skutečně k „pandemii“ (podle jakékoli rozumné definice) vůbec došlo.

Souhrn příznaků a symptomů spojených s covidem-19 od Dr. Koryho a Dr. Stonea:

Šťastná hypoxie; průjem; horečka; zvýšené D dimery (marker krevní sraženiny); CRP nad 200 (marker zánětu); Zvýšená LDH (příznak poškození tkáně) a velmi nízké lymfocyty, anosmie a ageuzie (ztráta chuti a čichu); CT vyšetření – akutní fibrózní organizování, oboustranný zápal plic se zákalem ze zabroušeného skla; CT vyšetření – průkaz periferní, subpleurální převahy; CT vyšetření – difuzní alveolární poškození (DAD) (možná svědčící pro alveolární krvácení); Plíce byly suché – nulová extravaskulární plicní voda.

Tyto příznaky přisuzují „spikeopatii“, spojené s spike proteinem ve viru SARS-CoV-2. V tomto článku se podíváme na některá další vysvětlení a zvážíme důkazní podporu pro tato konkurenční vysvětlení.

Prozkoumali jsme lékařskou literaturu a zjistili jsme, že většina prací o nálezech CT covid-19 ve skutečnosti naznačuje nálezy k nerozeznání od nálezů spojených s chřipkou nebo bakteriální pneumonií; zdá se, že je velmi obtížné (nebo nemožné) spolehlivě odlišit chřipku a bakteriální pneumonii a covid-19 na CT vyšetřeních.

Prozkoumali jsme také lékařskou literaturu, abychom hledali podpůrné důkazy týkající se „šťastné hypoxie“ a „suchých plic“ u pacientů s covid-19. Nenašli jsme žádné přesvědčivé důkazy, které by spojovaly šťastnou hypoxii s covidem-19. Ani literatura nepotvrdila, že suché plíce byly silně diagnostické pro infekci SARS-CoV-2. Stejně tak mnoho článků a recenzí, které jsme recenzovali, neobsahovalo žádnou zmínku o průjmu, ztrátě chuti a čichu a mikrosrážlivosti nebo jiných „problémech s krví“.

Nemyslíme si tedy, že tyto příznaky lze vysvětlit jedinou zastřešující příčinou, a to novým mechanismem spikeopatie spojeným se SARS-CoV-2. Domníváme se proto, že před „pandemií“ by mnoho/většina případů covid-19 byla diagnostikována jako „obyčejné“ případy chřipky a bakteriální pneumonie, protože toto je nejpravděpodobnější mechanismus, který vysvětluje důkazy uváděné v lékařské literatuře.

Žádný z příznaků připisovaných SARS-CoV-2 nemusí být vysvětlitelný pomocí spikeopathy, s výjimkou případů, kdy byly pozorovány problémy s krví, šťastná hypoxie a suché plíce a průjem, ať už častěji nebo vážněji. Ale i zde existují alternativní vysvětlení.

Jedno vysvětlení, které by mohlo lépe vysvětlit některé pozorované symptomy u některých pacientů a možná v lokalizovaných geografických oblastech, jako je NYC, je, že lidé byli vystaveni toxikologickým otravám, možná z vapů. Stojí to za zvážení, přestože lékařská literatura je k této možnosti do značné míry slepá. Symptomy související s VALI (poškození plic spojené s vapingem) se shodují s těmi, které někteří připisují covid-19: CT snímky ukazující konsolidaci se subpleurálním šetřením pozorované u významné části případů, doprovázené dušností, průjmem, neproduktivním (suchým) kašlem krvácení, horečka a těžké hypoxické respirační selhání vyžadující mechanickou ventilaci.

Existuje podezření, že VALI je způsobeno falšováním výparů rozpouštědly, fungicidy a pesticidy. Je proto možné, že některé případy připisované covid-19 byly ve skutečnosti zranění způsobené vapováním způsobeným nelegálními a falšovanými přísadami. Případy se pak mohou prezentovat vysoce lokalizovaným způsobem v konkrétních městech a geografických oblastech, podobně jako jsme to historicky viděli u „špatných šarží“ falšovaného heroinu. Všimněte si také, že případy toxické otravy by byly odolné vůči antibakteriální a antivirové léčbě.

Tato dvě alternativní vysvětlení symptomů covid-19 – „obyčejný“ zápal plic, se kterým se setkávají starší a zranitelní lidé, smíšený s případy vapingu u mladších lidí, mohou potenciálně vysvětlit heterogenní povahu některých „propuknutí“ covid-19 a každý z nich mohl být připisován k jediné příčině – SARS-CoV-2, prostřednictvím diagnózy „skupinového myšlení“.

Mohli bychom také spekulovat o alternativní hypotéze – že je v rámci možností, že podobné toxiny, jaké se nacházejí v nelegálních výparech, se mohly náhodně nebo jinak šířit jako aerosoly uvnitř budov a možná by mohly způsobit tzv. takzvané super šíření událostí hlášené na začátku roku 2020 a poté byly buď neúmyslně nebo jinak připsány SARS-CoV-2. Považujeme to za scénář s nízkou pravděpodobností, ale není to scénář k zahození.

Konkurenční hypotézy pod kontrolou

"Není nic klamavějšího než zřejmý fakt."

— Arthur Conan Doyle, The Boscombe Valley Mystery – povídka Sherlocka Holmese

V našem podzásobním článku jsme zkoumali „hypotézu bakteriální pneumonie“: že část úmrtí na covid-19, těch s přidruženými respiračními symptomy (spíše než úmrtí kódovaných jako covid-19 kvůli pozitivnímu PCR testu, u kterých chybí symptomy), byly způsobeny bakteriální pneumonií a tato bakteriální pneumonie byla primární, nikoli sekundární infekcí. Došli jsme k závěru, že to byl a věříme, že tento důkaz je v rozporu s myšlenkou, že SARS-CoV-2 byl „nový a smrtelný“, a proto nedošlo k žádné „pandemii“.

Fauci et al se domnívají, že „pandemie“ z roku 1918 byla z velké části způsobena zápallem plic a v roce 2020 se počet úmrtí na chřipku a zápal plic ve Spojeném království a USA relativně nezměnil od historických vzorců, v době, kdy se říkalo, že „chřipka“ zmizela. (podrobnosti viz [zde](#))._ To naznačuje, že riziko úmrtnosti představované těmito respiračními stavy se v roce 2020 nezměnilo, přestože se údajně jedná o „pandemii“ způsobenou konkurenčním novým patogenem.

Dr Kory i Dr Stone pevně věří, že svět viděl v roce 2020 nový patogen a že tento patogen byl SARS-CoV-2. Symptomy covid-19 připisují „spikeopatii“, spojené s vrcholovým proteinem viru SARS-CoV-2.

Tento článek není výkladem diskuse, kterou jsme vedli, ale je místo toho vyšetřováním důkazů o novosti a termínech onemocnění covid-19, které nám předložili, a které jsou porovnány s důkazy, které lze snadno nalézt ve vědecké a lékařské literatuře.

Důkazy od doktora Stonea a doktora Koryho



Důkaz doktora Stonea:

1. Není možné, že by šlo o chřipkový virus. Nebyl to jen respirační virus. Byl přenosný a mohl se dostat přes střeva a dýchací cesty a mohl se nejprve projevit jako průjem, chřipka, horečka nebo nestabilní hladina cukru v krvi. Bylo to onemocnění endotelu a nic jiného, co jsem viděl, nezpůsobuje srážení, které jsem viděl.
2. Strach nezpůsobuje nízkou saturaci, nálezy na RTG hrudníku a CT hrudníku a zvýšené D dimery a CRP nad 200 nebo zvýšené LDH a velmi nízké lymfocyty, které patřily mezi nesčetné množství nových a objektivních pozorovaných nálezů.
3. Ti, kteří byli „špičkování“, reagovali nesčetnými způsoby v závislosti na stavu jejich imunitního systému.
4. V první polovině roku 2020 jsme léčili bakteriální zápal plic a stále zemřeli. Některé pacienty komplikovala bakteriální pneumonie a počet neutrofilů reagoval na IV antibiotika.

5. Přestali umírat, až když jsme přidali Ivermectin a nejnápadnějšími a nejobektivnějšími nálezy bylo zvýšení sat, zvýšení D dimeru s rozpadem sraženiny a obnovení dobrého tvaru pulzní vlny na monitorech, což naznačuje reperfuzi. Mám nespočet fotografií, které jsem na tomto místě prezentoval. Ivermektin zastavil koagulaci a klinicky pacienti přežili hypoxii kvůli jeho účinkům na mitochondrie.

Důkaz doktora Koryho:

1. Můj článek ukazuje extrémně vysoký výskyt organizujících se zápalů plic na CAT skenech a můj raný článek ukazuje extrémně vysoký výskyt zákeřně silného srážení.
2. Extrémně vysoká míra anosmie a ageuzie.
3. Z celého srdce souhlasím s tím, že „oni“ používají virovou spikeopatii, aby obvinili ze všeho virus a ne vax, moje praxe se specializuje na léčbu pacientů s Long Covid a Long Vax
4. They found that the predominant finding was an "organizing pneumonia" pattern. Yes, this pattern has been associated with viruses before, but never to such a high incidence and so reproducibly - I suddenly was rounding in an ICU where everyone's chest x-ray and CT scan were identical, oxygen requirements and vent settings maximal, it was impossible to remember the patients' names as so little differentiated their disease.

5. Organising pneumonia - ground glass is non-specific as a general finding on CT scans, but pneumonia is not typically bilateral, and the ground glass is not typically seen in an "organizing" pattern of lung injury, but is more typically seen in patchy or consolidative or micronodular patterns - organizing pneumonia (oddly well demarcated with a peripheral, subpleural predominance) is a somewhat rare disease, and suddenly we had ICU wards full of patients with organizing pneumonia patterns of lung injury.
6. Bacterial pneumonias requiring hospitalization do not present with "happy hypoxia" (a puzzling finding to many doctors that was widely discussed even in newspapers), reason being is that the lungs are typically "heavy" with accumulated fluid/pus, they are not "dry" as they were with Covid. My partner Paul Marik, using a sophisticated device, measured the "extravascular lung water" (EVLW) in like the first 5 Covid patients he admitted on vents to the ICU. They had zero EVLW.
7. Secondly, in ICUs most ICU docs have a hair trigger for empiric antibiotics with either a fever, raised white counts, increasing phlegm or unilateral or asymmetric consolidations. I saw a lot of antibiotics being used in patients in my NYC ICU in the spring - didn't help. However, reading your article, you do make a strong case for Patient zero having a bacterial pneumonia based on his CT scan finding.
8. The Covid patients were crashing on vents with organizing pneumonia as the inciting cause (organizing pneumonia is not associated with bacteria).
9. None were suggestive of a bacterial process (typically unilateral abnormalities) preceding the viral syndrome (typically bilateral). Also, they had dry lungs and happy hypoxia - i.e. not bacterial.

10. Now the 2nd aspect you analysed, whether lots of secondary bacterial pneumonia or VAP as we call it in the ICU went unrecognized and contributed to the mortality rates, that certainly maybe true.....as it has always been true. VAP is and has always been a shitshow of a topic in ICU medicine.
11. Happy Hypoxia does not refer to a specific level of saturation, rather it refers to someone who evidences low to very low blood oxygen saturations, but the low saturations are not accompanied by a significant increase in the "work of breathing," i.e. they look oddly and discordantly comfortable. Most patients with an acute lung injury or infection which leads to low oxygen saturation will be struggling to breathe (especially bacterial pneumonia leading to hypoxia). These Covid patients (on presentation only as with time they did eventually develop respiratory distress, just not on arrival to the ER or in the first days) were not overtly struggling to breathe initially, thus the term "happy hypoxia".

12. Covid has two phases, the first is a viral syndrome, typical as any other, except the high incidence of severe anosmia (which then persisted beyond the acute phase) but then on like day 6-10, a minority of patients went into what I call the "pulmonary phase" where the lungs would get inflamed with ground glass opacities in an organizing pattern, their sats would drop, they would come to hospital, often relatively comfortable, but then, without treatment (i.e. corticosteroids), they would then start the slow steady Covid trajectory towards worsening oxygenation, increased shortness of breath, high flow oxygen devices or non-invasive ventilators and then would get intubated. But again, it was the latter pulmonary phase, which was so unique, not the earlier acute viral syndrome phase - that one, as you guys point out, was relatively indistinguishable from other acute viral illness (with the exception of severe and more frequent anosmia/ageusia in some). Otherwise, yes, the acute phase was relatively indistinguishable, but the later hospital phase was not - i.e. the organizing pneumonia, happy hypoxia, the microclotting etc.
13. Also, obviously, I cannot describe hospital phase Covid occurring in other places, I can only describe what I saw in ICU's in Madison, NYC, Milwaukee, South Carolina, and Central Wisconsin - they were all similar/identical, but the incidence of severe clotting waned over time during that first year and a half.

Note that Dr Stone and Dr Kory approved of our summary of their views and for us to include it in a public article.

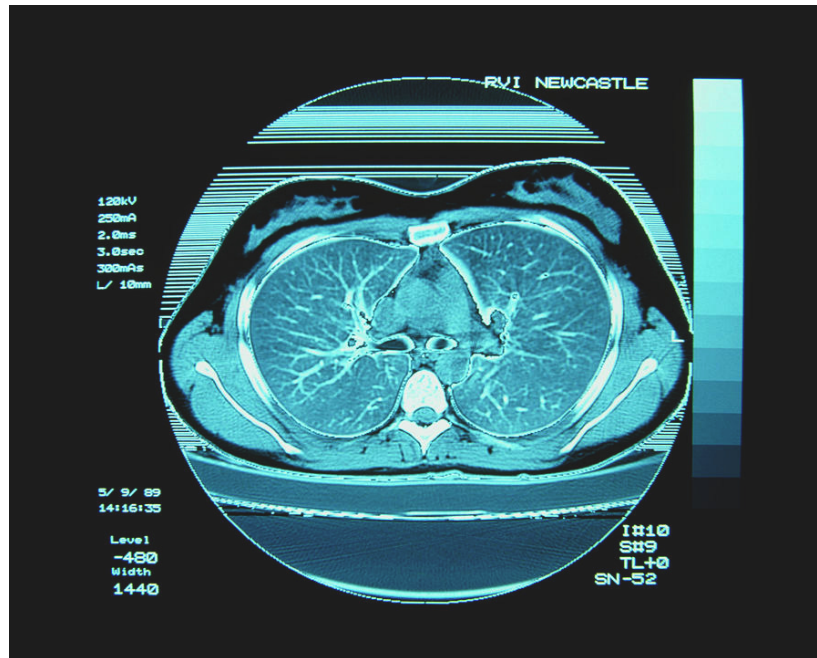
To summarise Dr Kory and Dr Stone's view on the signs and symptoms associated with covid-19 are:

- Happy hypoxia (saturating between 51% and 90%)
- First present as diarrhoea, or flu, or fever, or unstable blood sugar.

- Raised D Dimers (blood clot marker) and CRPs of over 200 (marker of inflammation)
- Raised LDH (sign of tissue damage) and very low lymphocytes.
- Anosmia, and ageusia (loss of taste and smell)
- CT scans – Acute fibrous organising, bilateral pneumonia with ground glass opacities
- CT scans - Evidence of peripheral, subpleural predominance
- CT scans - Diffuse alveolar damage (DAD) (indicative of alveolar haemorrhage)
- Lungs were dry - They had zero EVLW "extravascular lung water".
- Micro clotting severe but waned over course of the 'pandemic'.

This article does not address treatments, which were a fast-moving and controversial topic early in the 'pandemic'. Illustrative of this is Dr Kory's testimony to the Homeland Security & Governmental Affairs senate committee meeting in May 2020, where he recommended that the 'life threatening' ventilator shortage be addressed, that medicines like remdesivir or hydroxychloroquine be administered at home to keep patients away from hospital and that corticosteroids, which he says were lifesaving in prior 'pandemics', should be given to anyone beyond mild illness. Currently the FLCCC (Front Line COVID-19 Critical Care Alliance), of which Dr Kory is the President and Chief Medical Officer, recommends a panoply of treatments, including ivermectin and the FLCCC have published a factsheet on remdesivir suggesting its use is now known to result in a higher risk of sickness and death.

Evidential support for 'novel' covid-19 signs and symptoms



We assume a sceptical stance as to whether these signs and symptoms are caused exclusively by SARS-COV-2 and will investigate a subset of them, looking at contradictory and confirmatory evidence, as well as alternative explanations for what may have caused disease in 2020, but which was then (wrongly, in our view) associated with the deadly and novel virus.

ORIGINAL ARTICLE

Clinical Characteristics of Coronavirus Disease 2019 in China

Wei-jie Guan, Ph.D., Zheng-yi Ni, M.D., Yu Hu, M.D., Wen-hua Liang, Ph.D., Chun-quan Ou, Ph.D., Jian-xing He, M.D., Lei Liu, M.D., Hong Shan, M.D., Chun-liang Lei, M.D., David S.C. Hui, M.D., Bin Du, M.D., Lan-juan Li, M.D., [et al.](#), for the China Medical Treatment Expert Group for Covid-19*

Article	Figures/Media	Metrics
24 References	17901 Citing Articles	Letters
		April 30, 2020 N Engl J Med 2020; 382:1708-1720 DOI: 10.1056/NEJMoa2002032 Chinese Translation 中文翻译

Initial reporting of the signs and symptoms of covid-19 from Wuhan, in the form of the study of 1,099 patients by [Guan et al](#) appeared in the NEJM in April 2020 and was very widely reported (17,901 citations). They say:

RESULTS

The median age of the patients was 47 years; 41.9% of the patients were female. The primary composite end point occurred in 67 patients (6.1%), including 5.0% who were admitted to the ICU, 2.3% who underwent invasive mechanical ventilation, and 1.4% who died. Only 1.9% of the patients had a history of direct contact with wildlife. Among nonresidents of Wuhan, 72.3% had contact with residents of Wuhan, including 31.3% who had visited the city. The most common symptoms were fever (43.8% on admission and 88.7% during hospitalization) and cough (67.8%). Diarrhea was uncommon (3.8%). The median incubation period was 4 days (interquartile range, 2 to 7). On admission, ground-glass opacity was the most common radiologic finding on chest computed tomography (CT) (56.4%). No radiographic or CT abnormality was found in 157 of 877 patients (17.9%) with nonsevere disease and in 5 of 173 patients (2.9%) with severe disease. Lymphocytopenia was present in 83.2% of the patients on admission.

CONCLUSIONS

During the first 2 months of the current outbreak, Covid-19 spread rapidly throughout China and caused varying degrees of illness. Patients often presented without fever, and many did not have abnormal radiologic findings. (Funded by the National Health Commission of China and others.)

It surely says something about the suspension of normal critical faculties within the scientific community that this paper became so widely cited and, apparently, played a major role in the propagation of the ‘pandemic’ narrative, given that:

- The median age of the subjects was 47 – dramatically lower than that observed elsewhere.
- Within 3 weeks of the “sequence” for the novel virus being identified, they were able to find more than 1000 patients infected by it across 552 hospitals.
- They assume all these hospitals were capable of a reliable diagnosis of covid-19 in so short a period from its ‘discovery’ to the implementation of diagnostic tests.

It should be noted that diarrhoea was uncommon, and the most common CT findings were ground glass opacities (GGO - this can be a manifestation of a wide variety of clinical features, including

malignancies and benign conditions, such as focal interstitial fibrosis, inflammation, and haemorrhage). In the appendixes to their paper, they present a case fatality rate (CFR) comparable to the lower end of that reported for seasonal influenzas. Likewise, the CT scan reports do not differentiate from flu or bacterial pneumonia. It does not report dry throat or happy hypoxia as unusual symptoms, nor are either microvascular thrombosis (micro clotting) or alveolar haemorrhage reported at all.

In their July 2020 paper Kory and Kane, identify a set of Computed Tomography (CT)³ imaging descriptors that they claim are diagnostic of covid-19 in the six patients they examined: an acute bilateral fibrinous and organising pneumonia. The paper mentions a rapidly progressive course exhibiting imaging findings similar to diffuse alveolar damage (DAD)⁴. Note also that in Dr Kory's testimony he mentions the presence of subpleural predominance – “oddly well demarcated with a peripheral, subpleural predominance” - but the paper says, “which can extend to the subpleural regions”, which we assume to be equivalent.

In April 2020 Kory's co-author Kanne identified the CT imaging descriptors that correlated with covid-19. He recorded the usual ground glass opacities, consolidation, bilateral and peripheral distribution, as shown in their table below, but no pleural effusion or other findings related to the pleural cavity.

Reported Chest CT Findings in 2019 Novel Coronavirus Infections	
CT Findings	Frequency (%)
Ground-glass opacity	86
Consolidation	29
Crazy-paving	19
Linear	14
Cavitation	0
Discrete nodules	0
Pleural effusion	0
Lymphadenopathy	0
Bilateral distribution	76
Peripheral distribution	33

Note.—Data are from reference 10.

Note that Kanne says:

“The long-term imaging features of 2019-nCoV are not yet known but presumably will resemble those of other causes of acute lung injury.”

In October 2021 [Zarei et al⁵](#) compared chest CT imaging descriptors from influenza pneumonia (H1N1) and Covid-19 patients and conducted an interobserver agreement study of radiologists to determine whether they could consistently differentiate between one disease or the other from the scan alone. They found that:

Results

The most frequent clinical symptom in patients with COVID-19 and H1N1 pneumonia were dyspnea (96.6%) and cough (62.5%), respectively. The CT findings showed that the COVID-19 group was characterized by GGO (88.1%), while the influenza group had features such as GGO (68.4%) and consolidation (66.7%). Compared to the influenza group, the COVID-19 group was more likely to have GGO (88.1% vs. 68.4%, $p=0.032$), subpleural sparing (69.0% vs. 7.7%, $p < 0.001$) and subpleural band (50.0% vs. 20.5%, $p=0.006$), but less likely to have pleural effusion (4.8% vs. 33.3%, $p=0.001$). The agreement rate between the 3 radiologists was 65.8%.

They reported that radiologists found that the similarities of lung involvement in both diseases meant it was very hard to differentiate between them. Their statistical results show that ground glass opacities and consolidation are not useful to diagnostically distinguish the two conditions from each other, and the only features that shows on a CT scan that might practically assist in this regard are subpleural sparing, effusion and banding.

CT imaging descriptors	covid (%)	influenza (%)
ground glass opacities	88.1	68.4
consolidation	54.8	66.7
subplueral sparing	69	7.7
subplueral band	50	20.5
plueral effusion	4.8	33.3

They did not mention any symptoms related to DAD (diffuse alveolar damage), microvascular thrombosis (micro clotting) or alveolar haemorrhage.

The March 2020 study by [Fu et al](#) retrospectively analysed CT features in covid-19 patients and confirmed that ground glass opacities and consolidation were common features in covid-19 disease. However, interestingly they did record that the age variable had a mean of 45 (range was 20-67), only 14.5% had shortness of breath and only 0.02% had diarrhoea. They also said 5% of patients had severe progression with “white lungs”. They did also make these comments when comparing to other diseases:

Nevertheless, we found that COVID-19 pneumonia has many similar CT features to those reported with SARS [15, 16] and MERS [17, 18]; thus, it is difficult to distinguish COVID-19 pneumonia from them. Our findings were in accordance with the present studies [12, 19]. It is not surprising since the responsible viruses of SARS and MERS are also coronaviruses and viruses in the same viral family have similar pathogenesis.

They reported this experience about CT scans for covid-19:

“The common CT features of COVID-19 pneumonia are multiple lung opacities, multiple types of the opacity (ground-glass, ground-glass and consolidation, and consolidation alone), and multiple lobes especially the lower lobe involved.”

Note that they did not report any findings of hyperinflation, subpleural sparing, subpleural band or pleural effusion nor did they mention any symptoms related to DAD (diffuse alveolar damage), microvascular thrombosis (micro clotting) or alveolar haemorrhage. They emphasised that their reported CT features of covid-19 should be considered preliminary rather than definitive.

In April 2020 Hani et al performed a systematic review on a large series of 1014 patients and reported a 97% sensitivity of chest CT for the diagnosis of covid-19 but said nothing about specificity (meaning that nearly all covid-19 patients had abnormal CT scans, but the question as to how many of those with abnormal CT scans had covid-19 was left unanswered.) The common features for CT findings in covid-19 cases reported were similar to the papers discussed above. All cases were verified by PCR test which was often repeated until they got a positive test result. They even say:

“when the viral load is insufficient, RT-PCR can be falsely negative while chest CT shows suggestive abnormalities. RT-PCR remains needed for final confirmation, but its positivity can be delayed, with the need to repeat the test if the CT features are suggestive.”⁶

They did not mention any symptoms related to DAD (diffuse alveolar damage), microvascular thrombosis (micro clotting) or alveolar haemorrhage.

In May 2020 Yin et al also performed a comparison study of H1N1 influenza patients versus covid-19 patients (30 patients in each cohort) and found the CT scan results to be similar, except that pleural effusion was more evident in influenza patients. They also found that time from

symptom onset to CT was much higher with covid-19 patients⁷. They did not mention any symptoms related to DAD (diffuse alveolar damage), microvascular thrombosis (micro clotting) or alveolar haemorrhage.

Sharif et al, 2020, performed a systematic review, on papers from December 2019 until April 2020, and did a meta-analysis, reporting that:

“COVID-19 cases had a higher risk of having ground glass opacities, but there was no significant difference between the presence of pleural effusion, positive CT findings, and bilateral involvement in two groups. However, non-COVID-19 patients showed an increased risk of having consolidation”.

“CT results in patients with COVID-19 were comparable with those of people having pneumonia from other causes”.

They did not mention any symptoms related to DAD (diffuse alveolar damage), microvascular thrombosis (micro clotting) or alveolar haemorrhage.

In the BMJ, from July 2020, Cleverly et al reported (in a study referring to chest X-rays rather than CTs) that:

“Covid-19 pneumonia can be classed as an atypical pneumonia because of the radiographic appearances of multifocal ground glass opacity, linear opacities, and consolidation. These changes are also seen in other atypical pneumonias, including other coronavirus infections (severe acute respiratory system, SARS, and Middle East respiratory syndrome, MERS).”

“No single feature on chest radiography is diagnostic of covid-19 pneumonia”.

Unlike many of the previous reviews Cleverly et al reported that evidence suggests a high prevalence of thrombotic complications in covid-19 patients.

Share

A Dutch study by Klak et al from patients in April 2020 reported a 31% incidence of thrombotic complications in ICU patients with proven COVID-19 infections, which they say is remarkably high. The mean age of patients was 64 years old.

In April 2020 Revel et al, from the European Society of Radiology (ESR) and the European Society of Thoracic Imaging (ESTI), describe typical findings in CT scans for early diagnosis of covid-19 (* means presence is disconformity and suggests other infectious disease of superinfection):

- “Presence of (bilateral, diffuse, confluent, patchy) ground glass opacities with /a rounded morphology/a crazy paving pattern/a peripheral distribution without subpleural sparing &
- Presence of ground-glass opacities admixed with perilobular consolidations /linear consolidation &
- Presence*/Absence of tree-in-bud pattern/centrilobular nodules/endobronchial secretion/lobar or segmental consolidation &
- Presence*/Absence of adenopathy/significant pleural effusion”

However, they say findings of diffuse alveolar damage (DAD) are nonspecific.

The only paper we could find on CT and bacterial pneumonia was published in 2001 by Franquet, which reported that consolidation was indicative of community acquired bacterial pneumonia.

In 2020 Dhont et al investigated the pathophysiology of ‘happy’ hypoxia in covid-19, noting that it occurred in around 20% of hospitalised patients, but the condition was also observed in patients with atelectasis, intrapulmonary shunt (i.e. arterio-venous malformations) or right-to-left intracardiac shunt.

In 2020 Laredo et al failed to find any strong evidence of happy hypoxia:

“The RR/SpO₂ relationship before oxygen administration does not differ between patients with COVID-19 and those without COVID-19, except in elderly patients.”

As did Plummer et al in 2022:

“Patients with COVID-19 display a more symptomatic phenotype in response to hypoxaemia than those with other causes of hypoxaemic respiratory failure, however individual patients exhibit a wide range of responses. As such although asymptomatic hypoxaemia may be a phenomenon in any individual patient with hypoxaemic respiratory failure, it is no more frequently observed in those with SARS-CoV-2 infection than without.”

“Our results therefore refute the notion of COVID-19 infected patients being any more “happy” with hypoxaemia than non-COVID-19 patients”

“The mechanism of severe hypoxaemia in COVID-19 ... remains poorly understood”.

In 2023 Lardet et al looked at Extravascular lung water (EVLW) and covid-19 and found no correlation between this condition and covid-19 patients experiencing acute respiratory distress:

“our main objective was to investigate the relationship between extravascular lung water (EVLW) and/or pulmonary vascular permeability index (PVPI) and respiratory mechanic variables in patients with COVID-19-induced ARDS.

We found no clinically relevant correlations between EVLW and the respiratory mechanics variables.....driving pressure....., respiratory system compliance... or positive end-expiratory pressure. Similarly, there were no relevant correlations between PVPI and these same respiratory mechanics variables”.

It is worth pointing out that some doctors sometimes refer to imaging characteristics (e.g. ‘ground glass opacities’) without specifying whether they are referring to findings from x-rays or CT scans. The Cleverly study above talks about GGOs, but in x-rays, yet the majority of papers refer to CT scan findings. In most places, plain x-rays are in much more frequent use, CT scans for suspected pneumonia being used infrequently.

We do not know if GGOs found on x-ray have the same significance as those found on CT. Yet, interestingly, there are few papers suggesting concordance between x-rays and CT yet generally speaking doctors talk as if there is. In a 2015 review Claessens et al found that CT scanning changed the diagnosis which had been made after x-ray alone in 58% of cases, concluding that:

"In CAP-suspected (community-acquired pneumonia) patients visiting the emergency unit, early CT scan findings complementary to chest radiograph markedly affect both diagnosis and clinical management."

A 2008 review by Hayden and Wrenn also found that CT scans 'found' considerably more cases of pneumonia than x-rays alone.

One is left wondering firstly whether faulty assumptions made about the concordance of findings between these two technologies may have been significant, secondly whether the increased use of CT scans in some places may have affected perceptions about the novelty of covid-19 and thirdly whether this, like PCR testing, is a further example of the increased reliance on expensive technologies in lieu of clinical acumen.

Some evidence about CT is hard to fathom. In April 2020 Rubin et al reported that:

".... CT screening of 82 asymptomatic individuals with confirmed COVID-19 from the cruise ship "Diamond Princess" showed findings of pneumonia in 54% (11)."

So here we have asymptomatic patients showing findings of pneumonia. Perhaps this suggest a higher false positive rate than practitioners might assume given we might conclude many of these were perfectly well people. Furthermore, it is worth considering the possibility that an increase rate at which CT scans were being done would have resulted in higher numbers of patients suspected of having covid-19.

Discussion

All studies have limitations, especially observational studies. However, it is worth noting a few significant issues in the papers in our literature review:

Many of the academic papers written about diagnosing covid-19 disease use a positive PCR test as the definitive diagnosis of SARS-COV-2 infection. In at least one study these tests were repeated until a positive was found.

There are no standard terminology, definitions, or causal descriptors in CT. This introduces the potential for interpretation bias and variability in interpretation.

In many of the papers potentially confirmatory biopsies were not taken from the lungs. For instance, in the Kory and Kane paper, the authors say they never took tissue biopsies ante mortem, and that the majority of autopsies were carried out after patients had died post ventilation, hence represent the most severely ill patients:

Ultimately, the exact sequence of progression is currently unknown due to the lack of early, antemortem tissue biopsy in patients with COVID-19 along with the inherent bias that results from classifying COVID-19 lung injury only among those most severely affected given that the majority of autopsies were performed in patients after prolonged mechanical ventilation which unsurprisingly demonstrated DAD. Thus, in the early phases of the disease, the radiological findings and clinical assessment should be weighed more heavily in determining the type of lung injury occurring. The exact prevalence of OP or AFOP will ultimately be determined over time as the body of postmortem (and potentially antemortem) pathological studies accumulate.

Setting aside issues with terminology, gold standard verification of covid and the lack of biopsies we can summarise what we know about the ability of CT findings for covid-19 and the extent to which they are genuinely diagnostic of this disease in isolation of other tests and indications. Most CT imaging descriptors appeared to be shared with influenza and bacterial pneumonia, as meta-analysis shows, and most papers acknowledge how difficult it is to differentiate one from the other from CT scans.

The only imaging descriptor that appeared to differentiate between covid-19 and influenza was subpleural sparing, subpleural effusion (contra-indicating) and subpleural banding. Only Zarei et al and Revel et al reported these as features of covid-19.

We also have little evidence to support differences in oxygen saturation between influenza and covid-19 patient groups. Happy hypoxia is not identified in any of the papers reviewed, except for Kane and Kory. Likewise, there are no reported high incidences of diarrhoea in covid-19 patients subject to CT scans.

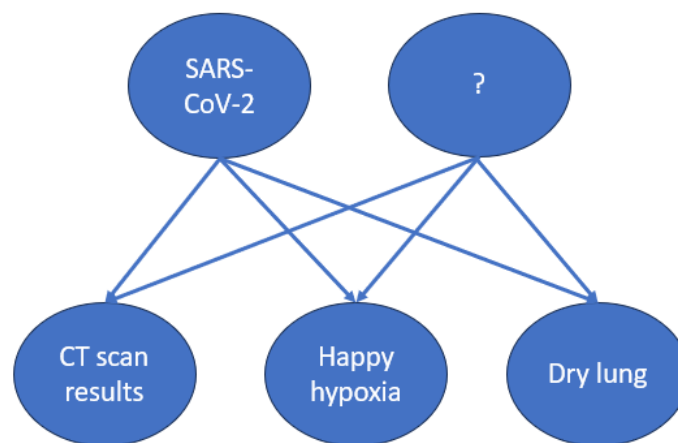
Symptoms related to DAD (diffuse alveolar damage), microvascular thrombosis (micro clotting), alveolar haemorrhage are not consistently reported, with only the one Dutch study and the Kory paper both citing it as a specific finding related to Covid-19.

‘Dry lung’ was also reported but this does not appear to be confirmed by the one study that looked for evidence of it.

We conclude that CT cannot differentiate between any of the respiratory diseases, and in the absence of objective confirmation can only ever be suggestive. Furthermore, objective confirmation cannot be obtained by PCR test because of the inability of swabs to reliably collect and identify causative agents (as reported by the CDC EPIC study in two 2015 NEJM articles - one done on adults and one on

children). Hence a positive result gained from a sample taken from the upper throat or the nose does not mean an infection in the lung is caused by the detected pathogen. Hence, just because a patient is PCR positive, we cannot conclude it is covid-19 and this conclusion should be reinforced by the fact that patients have been repeatedly retested, most times at high CT values, to establish positivity.

Credible alternative explanations



“How often have I said to you that when you have eliminated the impossible, whatever remains, however improbable, must be the truth?”

— Arthur Conan Doyle, The Sign of Four

The evidence presented here strongly suggests that none of the symptoms discussed are necessarily wholly and easily explainable by a single cause, that of a novel spikeopathy mechanism associated with an infection from SARS-CoV-2.

So, where does this leave us? We can speculate that there are several non-mutually exclusive, potentially interacting, explanations. There look to be two or more sets of observed disease manifestations, with distinct groups of symptoms seen in some patients caused by one or more different pathogens entirely, where:

- Many/most covid-19 cases would have been 'ordinary' influenza and bacterial pneumonia cases.
- Some were not viruses or diseases at all but caused by toxicological events.
- Each of these were misattributed to covid-19 either deliberately or through a process of human error.8

In our view the first explanation is the most likely, for the majority of cases, especially given there was a panic over covid-19 which would have created an overwhelming psychological pressure leading to confirmation bias.

However, the second possibility, a toxicological cause, is worth considering despite the medical literature being largely blind to the possibility. Such an explanation would potentially explain the dry lung, happy hypoxia and diarrhoea as well as the rarer CT scan result - subpleural sparing. It might also explain the haemorrhagic and vascular events. This is worth discussing in a little more detail.

A very interesting review paper by Chong et al on subpleural sparing was published in 2021 which reviews a number of causes of this CT identifier, including nonspecific interstitial pneumonia (NSIP), organizing pneumonia (OP), pulmonary alveolar proteinosis (PAP), diffuse alveolar haemorrhage (DAH), vaping-associated lung injury (EVALI/VALI9), cracked lung, pulmonary oedema, pneumocystis

jirovecii pneumonia (PJP), pulmonary contusion, and more recently, Coronavirus disease 2019. And inhalational lung injury, associated with vaping and cracked lung. The relevant section is:

INHALATIONAL INJURY: VAPING-ASSOCIATED LUNG INJURY AND CRACKED LUNG

Inhalational injury can occur after accidental or intentional inhalation of toxic gases, vapes or aerosols, and freebase cocaine with subsequent development of pulmonary infiltrates on imaging.³⁰ Crack lung refers to

.....

Cannabinoid concentrates or liquid flavoring agents of vaping products were initially implicated as the cause of vaping-associated lung injury (VALI). However, further investigations revealed that vitamin E acetate oil used to dilute cannabinoid concentrates were contributing to VALI by oxidative stress, the release of inflammatory mediators, and inhibition of surfactant function when exposed to high temperatures.^{38,39} VALI is a form of airway-centered chemical pneumonitis that triggers inflammation along the bronchiole and alveolar sac, giving rise to opacities seen on CT imaging before reaching the peripheral airways that cause a subpleural sparing appearance.^{35,40,41} The recent use of vaping products as far back as 90-days have been implicated as triggers for VALI, but VALI occurs in most cases within a week from exposure.⁴⁰ VALI's presentation varies from dyspnea, non-productive cough, pleuritic chest pain, and fever to the development of severe hypoxic respiratory failure requiring mechanical ventilation in 15-30% of cases. Radiographic imaging reveals diffuse GGO and consolidation with subpleural sparing seen in 64-75% of cases shown in [Figure 5](#).^{31,40} Many lung injury patterns, such as OP, DAH, and PAP that can be seen in VALI, are known to cause subpleural sparing.^{38,42-44} Nodules in VALI are seen in association with OP or HP but predominantly lower lobe.³¹ Lymphadenopathy, bronchiectasis, and pleural effusions are not unusual findings.^{31,40} BAL

Notice the symptoms related to VALI (vaping associated lung injury) are consolidation with subpleural sparing seen in a very high percentage of cases, accompanied by dyspnoea, a non-productive cough (dry), fever

and severe hypoxic respiratory failure requiring mechanical ventilation.

ORIGINAL ARTICLE

Pulmonary Illness Related to E-Cigarette Use in Illinois and Wisconsin — Final Report

Jennifer E. Layden, M.D., Ph.D., Isaac Ghinai, M.B., B.S., Ian Pray, Ph.D., Anne Kimball, M.D., Mark Layer, M.D., Mark W. Tenforde, M.D., Ph.D., Livia Navon, M.S., Brooke Hoots, Ph.D., Phillip P. Salvatore, Ph.D., Megan Elderbrook, M.P.H., Thomas Haupt, M.S., Jeffrey Kanne, M.D., [et al.](#)

In March 2020 Layden et al reported in the NEJM that:

“In July 2019, the Wisconsin Department of Health Services and the Illinois Department of Public Health received reports of lung injury associated with the use of e-cigarettes (also called vaping) and launched a coordinated public health investigation.....There were 98 case patients, 79% of whom were male; the median age of the patients was 21 years. The majority of patients presented with respiratory symptoms (97%), gastrointestinal symptoms (77%), and constitutional symptoms (100%). All case patients had bilateral infiltrates on chest imaging. A total of 95% of the patients were hospitalized, 26% underwent intubation and mechanical ventilation, and two deaths were reported. A total of 89% of the patients reported having used tetrahydrocannabinol products in e-cigarette devices, although a wide variety of products and devices was reported. Syndromic surveillance data from Illinois showed that the mean monthly rate of visits related to severe respiratory illness in June through August of 2019 was twice the rate that was observed in the same months in 2018.”

Clearly many of the symptoms of VALI appear to be shared by a subset of covid-19 patients, including GGO, and perhaps those in Spring 2020 more than others. Might it be possible that these ‘covid-19 events’ were toxicological in nature and not caused by a viral or bacterial pathogen at all?

In an interview in the NEJM [Christiani](#) points out that the ingredients in vapes are largely unknown and unregulated:

liquids.¹¹⁻¹³ Since the industry has not been required by regulatory agencies to report all ingredients (nor their pyrolysis products), it would be imprudent to assume that patients with EVALI who report only nicotine vaping are underreporting THC use. Our default position as physicians is to believe our patients. The burden should be on the nicotine vaping companies to prove that their vaping fluids do not contain pulmonary toxicants capable of producing acute and chronic lung disorders. We need to heed the lesson from environmental public health regarding the precautionary principle that holds when a new product is developed that may have the potential for harm: it should be tested carefully for toxicity before being marketed widely.¹⁴

Xantus reports on the situation around VALI up to November 2019. This report identifies a new syndrome characterised by respiratory distress with bilateral (sometimes haemorrhagic):

“Vast majority (98%) of the patients presented with **respiratory symptoms**; however, most (81%) had gastrointestinal (**diarrhoea** and vomiting) problems as well. Almost one-third progressed rapidly to **respiratory distress needing intubation** and mechanical (mostly positive pressure) ventilation. Imaging often revealed **bilateral infiltration**; however, the pathology was very diverse, varied from chemical pneumonitis (with one case of lipid pneumonia) to certain degree of acute respiratory distress syndrome with bilateral infiltrates (sometimes haemorrhage)”

Specifically, it also mentions:

“An investigation commissioned by National Broadcasting Company analysed 18 legal and illegal samples were analysed. The samples were analysed by CannaSafe Analytics LLC, the world first accredited cannabis laboratory. At least 10 samples had unacceptable level of **pesticides and myclobutanil**. Latter is a fungicide, which turns into the hydrogen cyanide and hydrogen chloride when heated: both compounds may result in lung damage if inhaled.”

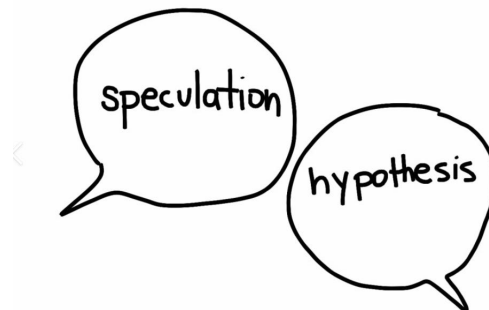
Rossana Segreto (a former DRASTIC contributor) produced this paper in 2022 comparing VALI and SARS-CoV-2, concluding that there is evidence to support the hypothesis that VALI cases were actually early manifestations of infections caused by early circulating SARS-COV-2. However, one commentator noted that:

“People with EVALI were presenting to the ED...chest x-ray and chest CT bore a striking resemblance to what was claimed to be CoV-2. They either get documented as 'suspected covid' or tested positive only a hypersensitive PCR. Boom! EVALI gets categorized as CoV-2.”

As well as pesticides and fungicides illegal vapes have also included solvents which may have acted as effective super-warfarins leading to alveolar haemorrhage (and might show as DAD on CT).10

Note that VALI patients are typically younger. Might this explain some of the young patients in New York and elsewhere – they were suffering from vaping lung injuries, and this was being misattributed to covid-19? And the rest of the elderly patients may have been succumbing to untreated bacterial pneumonia?

Might Segreto and frontline doctors got things the wrong way around? Perhaps VALI cases were being wrongly attributed to covid-19, and physicians were mistakenly believing that the symptoms of VALI were symptoms of SARS-CoV-2 infection, also believing that since VALI occurred predominately in the young that covid-19 was ‘deadly’ for the young as well as the elderly?



A more speculative hypothesis

Another, perhaps more conspiratorial, hypothesis is worth considering – a toxic poisoning event affecting, not individuals using e-cigarettes or vapes, but crowds of people in enclosed spaces.

How might such toxicological events manifest themselves? A lot has been written about the transmission of SARS-COV-2 as an aerosol, such as this article written by Dr Pierre Kory in the USA Today:

“However, it has recently been determined that a major mode of transmission of SARS-CoV-2 is via aerosol droplets, exhaled by presymptomatic, asymptomatic or symptomatic persons. These small aerosol particles remain airborne indoors for extended periods and can infect those nearby who inhale them into their lungs.”

The article argues for masks but in very special circumstances – in ‘at risk environments’:

“The key point is that, for standard masks to be effective, there needs to be near universal wearing of these masks by all persons when in any poorly ventilated, air-recirculated, confined indoor, or highly congested outdoor environment.”

These at-risk environments are ‘indoors’.

The article also goes onto describe super-spreader events at choir practice, in nightclubs, at karaoke, in ships and aircraft carriers and meat-packing plants. All indoors.

If someone was intending to release a pathogen that might mimic a respiratory disease, we might speculate that this might be more manageable in indoor spaces. And to maximise the negative psychological aspect of this it would also be helpful to label these as super-spreader events.

This alternative hypothesis - that it is within the realm of possibility that similar toxins to those found in illegal vapes might have been accidentally, or otherwise, spread as aerosols. That this occurred indoors, and potentially could have given rise to the so-called super spreader events reported in early 2020 and then (deliberately?) attributed to SARS-CoV-2. We view this as a low probability scenario but not one to be discarded.

1

Dr Kory is the President and Chief Medical Officer of the Front Line COVID-19 Critical Care Alliance. He is a pulmonary specialist who focused his discussion mainly on the evidence he saw from his time in

New York City in late April and May 2020, and elsewhere in the US during and after the NYC 'first wave'.

2

Dr Jackie Stone is a UK trained general practitioner located in Zimbabwe and developed extensive experience in applying early treatments to covid-19 patients, partly based on her extensive experience treating malaria, TB and HIV infection.

3

Radiopaedia is a useful resource for CT terminology, papers and sample images.

4

This might relate to microvascular thrombosis (micro clotting) or alveolar haemorrhage.

5

Note that in this study none of the influenza patients were not in ICU whereas almost half of covid patients were in the ICU. Almost all Covid patients were given antibacterial and antivirals and none of the Influenza got antivirals and only half got antibacterials. There was no difference in oxygen saturation between groups.

6

Readers may well – like the authors – raise their eyebrows, or worse, at the bias introduced here in by the investigators repeating negative tests until a positive was found, on the implied assumption their CT scan findings provided a definitive diagnosis.

7

Note this may be because patients did not attend hospitals until symptoms became severe.

8

Fame, status, and financial reward might have created a 'gold rush' effect, especially when this was coupled with propaganda and a new 'infallible' medical test.

9

EVALI and VALI are used interchangeably. The 'E' stands for E-cigarette.

10

Note that rather than draw attention to these toxins the CDC focused on Vitamin E acetates.

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