

A perspective influence of the Epsilon variant of COVID-19 on Catechol-O-Methyltransferase Val158Met leads to the emergence of human papilloma virus-Gueye, which is wrongly described as monkey pox

La influencia de la variante Epsilon de COVID-19 en la catecol-O-metiltransferasa Val158Met conduce a la aparición del virus del papiloma humano-Gueye, que se describe erróneamente como viruela del mono

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Abstract

A perspective study discussed how the epsilon variant of COVID-19 induced mutation to the existed human papilloma virus via mutagenic cadmium content of the COVID-19, and arsenic content of epsilon variant lead to appearance of new strain of human papilloma virus, we named it Human Papilloma Virus-Gueye. As this virus is most common among gay men, and due to the absence of infection with it among HIV-controlled patients. We suggest that this virus disturbs Catechol-O-Methyltransferase Val158Met which is the region which is responsible for male sexual orientation and has been linked to executive dysfunction, which might increase sexual risk behaviours favouring HIV transmission, which is damaged by mycotoxin of mycetoma fungal species and by cadmium contents of epsilon variant of COVID-19.

We conclude that COVID-19 is not hazardous just because of its severe symptoms, but also because of its action as a mutagen on other microbes that may be present in a subclinical state. Also, we suggest that immunization against COVID-19 may lead to unexpected complications, especially mutations in other microbes. Finally, we claim that the scientific community named it monkey pox. Even among individuals who do not travel to the endemic, it is just mutant form of Human Papilloma virus.

Key words: COVID-19, human papilloma virus, monkey pox, Catechol-O-Methyltransferase, heavy metals.

Resumen

En este estudio se discute cómo la variante épsilon de COVID-19 induce la mutación del virus del papiloma humano a través del contenido de cadmio mutagénico del COVID-19, y además como el contenido de arsénico de la variante épsilon conduce a la aparición de una nueva cepa del virus del papiloma humano, que denominamos Virus del Papiloma Humano-Gueye. Como este virus es más común entre los hombres homosexuales, y debido a la ausencia de infección entre los pacientes VIH controlados, se sugiere que este virus altera la Catecol-O-Metiltransferasa Val158Met, que es la región responsable de la orientación sexual masculina y que se ha relacionado con la disfunción ejecutiva, lo que podría aumentar las conductas sexuales de riesgo que favorecen la transmisión del VIH, que se ve dañada por la micotoxina de las especies de hongos del micetoma y por el contenido de cadmio de la variante épsilon de COVID-19.

Concluimos que el COVID-19 no es peligroso sólo por sus graves síntomas, sino también por su acción como mutágeno sobre otros gérmenes que pueden estar presentes en un estadio subclínico. Además, sugerimos que la inmunización contra la COVID-19 puede provocar complicaciones inesperadas, especialmente mutaciones en otros gérmenes. Por último, afirmamos que lo que la comunidad científica denomina viruela del mono, incluso entre los individuos que no viajan a la zona endémica, es sólo una forma mutante del virus del papiloma humano.

Palabras clave: COVID-19, virus del papiloma humano, viruela del mono.

Introduction

The World Health Organization (WHO) has currently confirmed nearly 100 cases of monkey pox in over a dozen countries, with the largest number of cases in the United Kingdom. As most cases so far are between gay and bisexual men, individuals with well-controlled HIV are not at augmented risk¹. So we suggested that this new monkey pox infection is similar to mycetoma infection which has never been documented in association with HIV infection², and both those viral and fungal microbes affect the COMT Val158Met variant which is responsible for male sexual orientation, and declaration of the outbreak of new monkey pox infection among gays and during COVID-19 era, increase our attention to search for the presence of possible role of COVID-19.

The catechol-O-methyltransferase (COMT) gene, which contains a well-studied functional polymorphism (Val158Met), plays a critical role in central dopamine function through the degradation of the COMT enzyme³.

Dopamine is a type of monoamine neurotransmitter. It's made in the brain and acts as a chemical messenger, communicating messages between nerve cells in the brain and brain and the rest of the body.

It plays a role as a "reward center" and in many body functions, including memory, movement, motivation, mood, attention, sleep and arousal, mood, learning, lactation, blood vessels relaxation, increases sodium and urine excretion, reduces insulin production, slows gastrointestinal content movement and protects gastrointestinal linings and reduces lymphocytes activity in immune system⁴.

A functional polymorphism of the Catechol O-methyltransferase (COMT) gene, designated rs4680 or Val158Met, has been associated with anxiety-related behaviours and the so-called "worrier" phenotype. Met allele frequency was positively correlated with COVID-19 prevalence and mortality rate⁵.

Discussion

COVID-19 infection

I hypothesized that COVID-19 resulted from mutation of influenza virus induced by cadmium and lead⁶.

Cadmium reduced dopamine content in the median eminence, as amplified its content in the posterior pituitary and provoked a phase advanced peak at 20:00 h⁷.

Low levels of dopamine have been linked to Parkinson's disease, restless legs syndrome and depression⁴.

Some researchers believe that COVID-19 may make patients more likely to develop Parkinson's disease either

sooner or later⁸, Restless legs syndrome is associated with long-COVID in women⁹. A case presenting with restless anal syndrome following affection of COVID-19 as restless legs syndrome variant. That case fulfilled 4 essential features of RLS¹⁰. RLS was associated with increased odds of perceived olfactory and taste dysfunction¹¹. Patients with COVID-19 often complain of smell and taste disorders (STD)¹² and individuals who reported taste and smell dysfunction had higher concentrations of blood cadmium than those without perceived dysfunction¹³.

In the first year of the COVID-19 pandemic, global prevalence of anxiety and depression increased by a massive 25%, according to a scientific brief released by the World Health Organization¹⁴, and individuals in the highest quartile of blood cadmium had higher odds of having depressive symptoms¹⁵.

there is no significant differences in experiences of COVID-19 symptoms by sexual orientation and gender¹⁶, but infection of Covid-19 can temporarily diminish male fertility¹⁷.

Cadmium also disrupts the vascular system of the testis. It is a reactive oxygen species inducer and possibly induces DNA damage, thus epigenetically regulating somatic cell and germ cell function, leading to male subfertility/infertility¹⁸.

New Strain of Human Papilloma virus (Human Papilloma virus-Gueye)

Since 13 May 2022, cases of monkey pox have been reported to WHO from 12 Member States that are not endemic for monkey pox virus, across three WHO regions. Epidemiological investigations are ongoing, however, reported cases thus far have no established travel links to endemic areas¹⁹.

I hypothesized that the claim of the scientists on appearance of Monkey pox is not true, but this is mutant form of Human papilloma virus (HPV) resulted from COVID-19 infection, which is a viral infection that's passed between people through skin-to-skin contact²⁰.

Arsenic causes cancer in man through the activation of an oncogenic virus like the human papilloma virus²¹, and as cadmium and lead are responsible for mutation of influenza virus into COVID-19[6], arsenic are responsible for appearance of epsilon variant of COVID-19²².

Cutaneous abnormalities and lesions are the most common outcome and health effects from consumption of drinking-water containing arsenic²³. Cadmium is strong mutagen that act by inhibiting mismatch repair²⁴ of influenza virus lead to COVID-19 and of human papilloma virus lead to development of new strain of human papilloma virus. This strengthens by latest data

demonstrates that the Epsilon variant “relies on an indirect and atypical neutralization-escape stratagem”²⁵.

This supported by the study showed that Long noncoding RNA ENST00000455974 plays an oncogenic role through up-regulating JAG2 in human DNA mismatch repair-proficient colon cancer²⁶.

Many mismatch repair (MMR) gene disease-causing mutations identified in cancer patients result in aberrant messenger RNA (mRNA) splicing²⁷.

lncRNAs are emerging as important players in the regulation of virus-mediated infection and the subsequent disease status. Along with advancements in research tools and techniques, numerous lncRNAs have been found to be differentially expressed in COVID-19 patients, and key lncRNAs for virus-host interactions have also been identified²⁸. A non-coding RNA (lncRNA) MT1DP, a pseudogene in the metallothionein (MT) family, promoted Cd-induced cell death through activating the RhoC-CCN1/2-AKT pathway and modulating MT1H induction²⁹.

Conclusion

We conclude that the newly emerged cases where scientists claim that the monkey pox, is a mutant form of human papilloma virus (human papilloma virus-Gueye), mutated by the action of cadmium content in Epsilon variant of COVID-19.

And we conclude that the dangerousness of COVID-19 is not just attributed to its severe symptoms, but also to its ability to mutate other RNA viruses and shape new strains of it. Lastly, we knock on the warning ring about the unexpected complications of COVID-19 infection and immunization, which is not only related to the unknown long term symptoms but mutations of subclinical viral infection.

Interests conflict

The researcher declare that he has no conflict of interest.

References

1. Liz Highleyman, Monkeypox is spreading among gay men worldwide, May 25, 2022. Nam aidsmag, May 29, 2022. <https://www.aidsmag.com/news/may-2022/monkeypox-spreading-among-gay-men-worldwide>.
2. Hamad MN. The Role of Mycotoxin in Mycetoma Pathogenesis. SAR J Med. 2022;3(2):15-8.
3. Zhang X, Li J, Qin W, Yu C, Liu B, Jiang T. The catechol-o-methyltransferase val158met polymorphism modulates the intrinsic functional network centrality of the parahippocampal cortex in healthy subjects. Scientific reports. 2015 Jun 9;5(1):1-7.
4. Dopamine, 23.3.2022, Cleveland Medical Professional, 28.5.2022, <https://my.clevelandclinic.org/health/articles/22581-dopamine#:~:text=Dopamine%20is%20a%20neurotransmitter%20made,%2C%20mood%2C%20attention%20and%20more>.
5. Rajkumar RP. Warriors, Worriers, and COVID-19: An Exploratory Study of the Catechol O-Methyltransferase Val158Met Polymorphism Across Populations. Cureus. 2020 Aug;12(8):e10103. DOI: 10.7759/cureus.10103. PMID: 32879833; PMCID: PMC7456627.
6. Hamad, Mosab Nouraldein Mohammed. "COVID. 19: Man Made Pandemic: Lead and Cadmium Mutate Influenza Virus Produce: SARS COV-2." (2021).
7. Lafuente A, González-Carracedo A, Romero A, Cabaleiro T, Esquifino AI. Toxic effects of cadmium on the regulatory mechanism of dopamine and serotonin on prolactin secretion in adult male rats. Toxicology Letters. 2005 Jan 15;155(1):87-96.
8. Sue Hughes, COVID-19 linked to increased risk for Parkinson's, 2020, WebMD, 28.5.2022, <https://www.webmd.com/lung/news/20201106/covid-19-linked-to-increased-risk-for-parkinsons>.
9. Weinstock LB, Brook JB, Walters AS, Goris A, Afrin LB, Molderings GJ. Restless legs syndrome is associated with long-COVID in women. Journal of Clinical Sleep Medicine. 2022 Jan 25;jcsm-9898.
10. Nakamura I, Itoi T, Inoue T. Case report of restless anal syndrome as restless legs syndrome variant after COVID-19. BMC Infect Dis 21, 993 (2021).
11. Zhuang S, Yuan X, Ma C, Yang N, Liu CF, Na M, et al. Restless legs syndrome and perceived olfactory and taste dysfunction: A community-based study. European Journal of Neurology. 2021 Aug;28(8):2688-93.
12. Mastrangelo A, Bonato M, Cinque P. Smell and taste disorders in COVID-19: from pathogenesis to clinical features and outcomes. Neuroscience Letters. 2021 Mar 23;748:135694.
13. Zheng Y, Shen Y, Zhu Z, Hu H. Associations between cadmium exposure and taste and smell dysfunction: results from the National Health and Nutrition Examination Survey (NHANES), 2011–2014. International journal of environmental research and public health. 2020 Jan;17(3):943.
14. COVID-19 pandemic triggers 25% increase in prevalence of anxiety and depression worldwide, March 2, 2022, World Health Organization, 28. May, 2022. <https://www.who.int/news/item/02-03-2022-covid-19-pandemic-triggers-25-increase-in-prevalence-of-anxiety-and-depression-worldwide>.
15. Scinicariello F, Buser MC. Blood cadmium and depressive symptoms in young adults (aged 20–39 years). Psychological medicine. 2015 Mar;45(4):807-15.
16. Peterson ZD, Vaughan EL, Carver DN. Sexual identity and psychological reactions to COVID-19. Traumatology. 2021 Mar;27(1):6.
17. Covid-19 update: Covid-19 can temporarily diminish male fertility, January 21, 2022, pharmaceutical technology, May 28, 2022. <https://www.pharmaceutical-technology.com/news/covid-reduce-male-fertility/#:~:text=Covid%2D19%20vaccinations%20won't,an%20NIH%2Dfunded%20study%20found>.
18. Zhu Q, Li X, Ge RS. Toxicological effects of cadmium on mammalian testis. Frontiers in genetics. 2020 May 26;11:527.
19. Amber Erickson, Everything you Need to Know About Human Papillomavirus Infection, February 15, 2021, Health line, May 28, 2022. <https://www.healthline.com/health/human-papillomavirus-infection#tests>.
20. Multi-country monkeypox outbreak in non endemic countries, May 21, 2022, World Health Organization. <https://www.who.int/emergencies/disease-outbreak-news/item/2022-DON385>.
21. Stöhrer G. Arsenic: opportunity for risk assessment. Archives of toxicology. 1991 Sep;65(7):525-31.
22. Hamad MN, Al-Qahtni A. Understand COVID-19 through Heavy Metals Pollution. J. Pharm. Res. Int. 2022;34:19-35.
23. Dastgiri S, Mosaferi M, Fizi MA, Olfati N, Zolali S, Pouladi N, Azarfam P. Arsenic exposure, dermatological lesions, hypertension, and chromosomal abnormalities among people in a rural community of northwest Iran. Journal of health, population, and nutrition. 2010 Feb;28(1):14.
24. Jin YH, Clark AB, Slebos RJ, Al-Refai H, Taylor JA, Kunkel TA, Resnick MA, Gordenin DA. Cadmium is a mutagen that acts by inhibiting mismatch repair. Nature genetics. 2003 Jul;34(3):326-9.
25. University of Washington School of Medicine/UW Medicine. "Epsilon variant mutations contribute to COVID immune evasion." ScienceDaily. ScienceDaily, 6 July 2021. <www.sciencedaily.com/releases/2021/07/210706093857.htm>.
26. Lao Y, Li Q, Li N, Liu H, Liu K, Jiang G, Wei N, Wang C, Wang Y, Wu J. Long noncoding RNA ENST00000455974 plays an oncogenic role through up-regulating JAG2 in human DNA mismatch repair-proficient colon cancer. Biochemical and biophysical research communications. 2019 Jan 8;508(2):339-47.
27. Thompson BA, Martins A, Spurdle AB. A review of mismatch repair gene transcripts: issues for interpretation of mRNA splicing assays. Clinical genetics. 2015 Feb;87(2):100-8.
28. Yang Q, Lin F, Wang Y, Zeng M, Luo M. Long Noncoding RNAs as Emerging Regulators of COVID-19. Frontiers in Immunology. 2021:3076.
29. Gao M, Li C, Xu M, Liu Y, Cong M, Liu S. LncRNA MT1DP aggravates cadmium-induced oxidative stress by repressing the function of Nrf2 and is dependent on interaction with miR-365. Advanced Science. 2018 Jul;5(7):1800087.