Article ID: WMC005789 ISSN 2046-1690



Is Pandemic Teaching Gut Biome Maybe Holding The Key With Us Carrying Our Answers In Our Gut?

Peer review status:

No

Corresponding Author:

Dr. Deepak Gupta,

Anesthesiologist, Self - United States of America

Submitting Author:

Dr. Deepak Gupta,

Anesthesiologist, Self - United States of America

Article ID: WMC005789
Article Type: My opinion

Article URL: http://www.webmedcentral.com/article_view/5789

Subject Categories:INFECTIOUS DISEASES **Keywords:**Pandemic, Gut Biome, HIV, Monkeypox

How to cite the article:Gupta D. Is Pandemic Teaching Gut Biome Maybe Holding The Key With Us Carrying Our Answers In Our Gut?. WebmedCentral INFECTIOUS DISEASES 2022;13(8):WMC005789

Copyright: This is an open-access article distributed under the terms of the Creative Commons Attribution License(CC-BY), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Source(s) of Funding:

NOT APPLICABLE

Competing Interests:

NOT APPLICABLE

Is Pandemic Teaching Gut Biome Maybe Holding The Key With Us Carrying Our Answers In Our Gut?

Author(s): Gupta D

My opinion

Just like global epidemiology of HIV had its onset among men having sex with men, global epidemiology of monkeypox is following the same onset. However, just as HIV did not limit itself to men having sex with men, monkeypox too may evolve a similar pattern. Therefore, the question arises as to why so. Is it the absence of vulvo-vagino-cervical intercourse among men having ano-rectal and/or oro-pharyngeal intercourse with men [1]? Thence comes the question whether it is oro-pharyngeal intercourse or ano-rectal intercourse that is increasing this vulnerability to these diseases among men having sex with men. If oro-pharyngeal intercourse is not increasing this vulnerability to these diseases among all others yet, the preponderance of ano-rectal intercourse among men having sex with men may be the primary route of spread. However, as ano-rectal intercourse is not limited to men having sex with men as aptly elaborated by Gana and Hunt in their opinion [2], the question arises as to how ano-rectal intercourse predisposes to this exaggerated vulnerability. One of the most common documented reasons is the differently evolved mucosa and surrounding layers of tissue wherein unlike ano-rectum and oro-pharynx, vulvo-vagino-cervix as receptive organ may have evolved with more frequent exposures over millenniums to penis as insertive organ thus allowing vulvo-vagino-cervix much more opportunity to acquire and mature its armamentarium to fight back mechanical, chemical and biological exposures during this coevolutionary arms race with penis [3]. Although ano-rectum and oro-pharynx may have lagged in this coevolutionary arms race, they may be catching up. However, during these catch-up times, the unexpected consequences of mechanical, chemical and biological exposures may get expressed while ano-rectum and oro-pharynx are acquiring and maturing their armamentarium to fight back as effectively as vulvo-vagino-cervix. In the interim, there is an avenue to investigate and maybe affect outcomes in currently evolving diseases like monkeypox. Although not available at the onset of HIV pandemic [4-7], theory and testing for gut biomes are currently available and may be explored in all known and suspected

monkeypox cases if not in all susceptible populations. Such surveillance data comparing biodiversity of gut biomes may be able to provide information about gut ecosystems differentially favoring not only current pathogens but also future pathogens evolving to potentially mutate first among those engaging in ano-rectal intercourse irrespective of their gender and orientation before mutating further in such reservoir populations' ano-rectum to spread beyond and across all human populations. Concurrently, evolving eating and purging habits among humans may have to be taken in account too when deciphering whether eating and purging habits are being physiologically warranted per sexual habits. Henceforth, gut biome surveillance may provide a summated data of what humans are or are not getting exposed to mechanically, chemically and biologically per their eating, purging and sexual habits so that they can accordingly make informed decisions for-or-against overcompensating biodiversity of their gut biomes by bettering it nutritionally with addition of prebiotic-probiotic foods and/or iatrogenically with addition of corresponding over-the-counter prescriptions.ÂÂÂÂÂ

Reference(s)

- More scientific name is ano-rectal intercourse. https://www.bmj.com/content/378/bmj.o1975/rr
- Young women and anal sex. https://www.bmj.com/content/378/bmj.o1975
- 3. The role of female investment in a sexual arms race. https://onlinelibrary.wiley.com/doi/full/10.1111/jav.0 2322
- 4. Gut Microbiome Changes Associated With HIV Infection and Sexual Orientation. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC754 6801/
- Can gut microbiota of men who have sex with men influence HIV transmission? https://www.ncbi.nlm.nih.gov/pmc/articles/PMC752 4317/
- HIV, Sexual Orientation and Gut Microbiome Interactions. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC730 1749/
- Combined Effects of HIV and Obesity on the Gastrointestinal Microbiome of Young Men who have Sex with Men. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC729 9823/