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Article 12. Summarized Daily Notes on Epidemiology

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Abstract

This article summarized the daily notes on epidemiology, discussing the reasons resulting in acute, pathogenic and epidemic diseases caused by airborne pathogens.

Key words: Epidemiology, Pathogenicity, Natural Microbe Community, Population Immunology, Specificity in Invasion – Host Interaction.

1.Natural conservation contributes to the prevention of epidemic virus from breaking out, because there are more diversity in natural microbes which compete with this epidemic virus within the community of the same ecological niche, reducing epidemic events. The mono-strain of microbes increases epidemic risks. From above viewpoint, the broad scope and large scale of epidemic virus, which exceeds the historic epidemic events in the past, reflects that the biodiversity decreases in natural microbe community. Specifically urban biodiversity conservation is mostly closed to the human health (Firstly published on 02/04/2020).

2.The formation of population immunology should be explored from the establishment of individual immunity. For epidemiology disease, one of the pre-conditions for individual immunity should be established by the presence of pathogen biodiversity in the host ecosystem. Before the outbreak of an invasive and epidemic strain of infectious pathogens, if individuals of host species have been infected by its relatives' pathogen strains, leading to the establishment of immunity, and this sub-population of relatives' strains is less pathogenic and epidemic than the more infectious strains, then the outbreak of the more infectious pathogens can certainly be prevented, as population immunology would be formed before. However, if the outbreak of epidemic pathogens occurs very suddenly, it may be reflected as the absence in biodiversity of virus community in the host/receptor's living ecosystem (Firstly published on 27/04/2020).

3.Then, the pathogenesis of epidemic pathogens is analyzed by the specificity of invasion-host interactions. In most cases, epidemic disease only infects a proportion of host population, and the other proportion is of resistance against the pathogens due to the specificity in population genetics between invasive pathogen and host species.

However, the non-selective infections by an invasive strain of pathogens would be expressed as the deletion of specificity in invasion – host interactions between population genetics, further revealing that the previous/original host species of this invasive pathogen strain has apparent genetic distance to the secondary host species invaded by this epidemic strain of pathogens [3], so that the effective antibiotic/antibody substances of immunity is the enzymes synthesized by the allogenetic chromosomes of an original host species with long genetic distance to the genomes of the secondary host species invaded. Consequently, the inoculation of allogenetic enzymes would not be promising. The absences in the above two pre-conditions reveals that the population immunology formation in the secondary host species invaded would not be realistic, so that the isolation remedy of infected receptors is the only reliable measure to resolve the outbreak of invasive and epidemic pathogens (Firstly published on 27/04/2020).

4.Recently, I have read the biochemical characteristics in some News reports about new drugs, and presented the following academic viewpoints: in the previous academic paper of metabolomics, it is proposed that the selection of isozymes as the indicative biochemical molecules for pathological analysis leads to better correlation with its phenotype characteristics, which is more stable and less environmental sensitive in the long-term, as compared with other biochemical indicators. If medicines research chooses mRNA or tRNA as biochemical indicator, it is not expected to show a long-termly stable and positive correlation to the eventual phenotype of antibody against virus, which is susceptible to environmental condition changes (such as diet and physiological work-rest timetable may significantly influence the results of bio-tests on mRNA), and this is especially important for the analysis of immunology generated by vaccine inoculation. The vaccine produced on the basis of the later indicator is similar to biochemical medicines only, which plays the role in remedy in the short term (Firstly published on 21/12/2020).译文：最近看了一些关于新药的新闻报道的特征描述，提出以下学术观点：本文在之前学术论文《新陈代谢组学》中一直提出使用同工酶最为指示性生化指标对病理进行分析才保证其长期稳定、可靠的表现型特征，不容易受制于环境条件的影响。如果是选用 mRNA 或是 tRNA 作为指示性生化分子，在此基础上对最终表现出来的抗体是否呈现阳性进行相关性分析，不会有长期稳定的正相关特性，而且容易受制于环境条件的影响（比如测试前期的饮食、生理作息时间等也可能会对 mRNA 测试结果产生显著影响）。这对于疫苗抗体的有效性分析尤其重要。因此这类疫苗抗体仅仅类似于西药，产生短期治疗效果。

5.It is reported that the epidemiological virus more frequently breaks out during cold winter seasons. This would be attributed to the dormant nature of this virus population when the virus adhere to the aerosol exposed to the cold weather. When the weather turns to be warmer, this dormant characteristics does not show again on the virus, which shortens the survival time after the virus leave host cells. Consequently, it is important to increase the disinfection measures during cold weather especially in the indoor air (Firstly published on 27/12/2021).

6.On 12/12/2022, it is reported that the pathological characteristics of patients infected by epidemiological virus (such as COVID) in North city of China is more severe than the pathological characteristics diagnosed in the South city of China. This evidence would further support the causing factors related to dormant nature of such epidemiological virus discussed above. Under colder weather in North city, the dormant nature of virus would enhance the vitality of pathogen so that pathogen increases its pathogenicity, which agrees with the nature Law that creatures (virus, bacteria, or plants ....) would show higher and more sustainable vitality when they are cultivated under adverse conditions. It is also frequently reported that epidemiological diseases break out in agriculture plants after extreme weather conditions, such as frozen weather (Firstly published on 12/12/2022).

7.According to official reports, the epidemic infectious diseases during this year's winter season in China mainly include COVID-19 virus, mycoplasma pneumonia, influenza A and influenza B, subsequently increasing the possibility of cross infection by these pathogens. I was also unfortunately infected recently, mainly with symptoms of sore throat. After about a month treatment of eating/drinking capsule medicine, the symptoms completely disappeared. Now I'd like to share my experiences: I was infected by COVID-19 virus at exactly one year ago, and I reserved excessive drugs against this COVID-19 at that time. When I was infected in this year's winter, I continued to take previous medicine, but it led to little effect in this year. Afterwards, when I went to the clinic, I took the initiative to switch to multiple different anti-inflammatory and heat clearing drugs. Each kind of drug was only taken for two days, and after this another kind of drug was taken for two days alternatively. However, the therapeutic effects of the drugs were all the same: anti-inflammatory and heat clearing. After taking different varieties of drugs alternately for a week, the symptoms have completely disappeared today. Based on my infection process, the summary is as following: one year later, the virus has shown significant drug resistance and developed a mutated genotype or phenotype with different pathogenicity; If it is the cross infection of multiple pathogens, according to the specificity theory in the relationship between pathogenicity and antibiotics/antibody [2][3], multiple drugs need to be taken alternately to produce different types of antibiotics/antibody that are more likely to resist the pathogenicity of multiple pathogens (Firstly published on 02/02/2024). 译文：根据官方报道，今年中国冬季流行性传染病，主要包括新冠肺炎病毒、支原体肺炎、甲流、乙流。这几种病毒交叉混合感染的可能性增加。本人近期也不幸感染了，症状主要是咽喉肿痛，经过一个月左右时间吃药治疗，症状才完全消失。现分享以下经验，本人正好在一年之前感染新冠病毒，当时储备了很多针对性药品，在今年冬季感染之后继续服用，已经没有任何明显效果了。之后去诊所，我自己主动提出改换了多种不同的消炎、清热药品交替服用，每种药品仅仅服用两天，又更换另一种药品服用两天，但是所有药品的疗效都是相同功能：消炎、清热作用。交替服用不同品种的药品一周之后，今天症状完全消失了。根据本人感染过程，总结如下：一年之后，病毒有明显的抗药性，产生了变异的基因型或是表现型病毒，从而表现了不同的致

病性；如果是多种病原体交叉感染，根据致病性与抗生素相互关系中的专一性原理 [2][3]，需要多种药品交替服用，产生的不同种类的抗生素才能具备更大概率，有效抵抗多种病原体的致病性。

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