



Paleovirology and Emerging Infectious Disease: Correspondence

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Abstract

Paleovirology is the study of viruses that existed in the past but are now extinct. In general, viruses cannot leave behind physical fossil or old cadaveric bodies from burial sites. This specific branch of virology is limited mentioned. In this specific article, the authors discuss on its role in the emerging infectious disease. It can show that the paleovirology is useful for corresponding to the new emerging disease as well as tracing back on the mysterious problem in the medical history.

Keywords: pelevirology, emerging, disease.

Introduction

Paleovirology is the study of viruses that existed in the past but are now extinct. In general, viruses cannot leave behind physical fossil or old cadaveric bodies from burial sites. This specific branch of virology is limited mentioned. In this specific article, the authors discuss on its role in the emerging infectious disease. In fact, the existence of the pathogen in the old death bodies examinations has been continuously reported (such as the existence of pathogen in incorruptible body of holy saint [1]) and it is a good evidence for the continuum of disease.

Paleovirology for emerging infectious disease

Various "emerging viruses" with dangerous features, such as HIV-1, SARS-CoV, several new influenza A reassortments and SARS Co-V2, have infiltrated the human population on a wide scale throughout the last century [2]. However, new pathogenic viral infections in humans are not a recent phenomenon [2]. "Paleovirology is the scientific study of ancient extinct viruses (known as "paleoviruses") and their effects on the evolution of their hosts [2]. There are some interesting reports on paleovirology that is related to emerging infectious disease. Good examples will be further discussed.

A. monkeypox

monkeypox is a new reemerging disease. The cessation of the old vaccine is believed to be the rooted cause of the present outbreak. Saied et al. suggested for the useful paleovirology study with a special focus on the Egyptian mummy that might provide the further implication on the evolutionary pattern of the monkeypox [3].

B. COVID-19

COVID-19 is the current global public health problem. This disease was successfully confirmed in East Asia. However, there are some evidences showing that the disease might not be originated in this area. It is suggested that the paleovirological approach will be a useful way to trace the evolutionary path of the new problematic disease [4].

Paleovirology as a tool for reassessment of the unclarified medical disorder in the history

There are also many mysterious diseases in the medical history. In the past, some emerging disease occurs and could not have a clarified explanation. The advent of encephalitis lethargica (EL), an acute-onset poliomyelitis of unclear cause as an epidemic in the years 1917-1925, is a notable example [5]. The paleontovirological technique on old specimens from dead individuals owing to that order in the past period can assist in identifying the hint of the past outbreak [5]. This is an intriguing use in medical history research.

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