1. Caliciviruses(Caliciviridae)

Ảnh có chứa ảnh chụp màn hình

Mô tả được tạo tự động

* Discovery Date: Establishing the viral etiology took many decades due to the difficulty of growing the virus in cell culture. In the 1940s and 1950s in the United States and Japan, caliciviridae could not be grown in culture, but as an experiment bacterial free filtrate of diarrhea was given to volunteers to check if viruses were present in volunteers' stool. These experiments demonstrated that nonbacterial, filterable agents had the capability of causing enteric disease in humans. In 1968, an outbreak at a Norwalk elementary school (e.g. Norwalk virus) in Ohio led to stool samples again being given to volunteers and serially passaged to other people. Finally, in 1972, Kapikian and his colleagues isolated the Norwalk virus from volunteers using immune electron microscopy, a process that involves looking directly at antibody-antigen complexes. The classification of this one Norwalk virus strain served as the prototype for other species and small round structured viruses later known as Norovirus.
* Data: Ảnh có chứa văn bản, biên lai, ảnh chụp màn hình, số

  Mô tả được tạo tự động
* StructureẢnh có chứa văn bản, biểu đồ, bản đồ

  Mô tả được tạo tự động
* How Caliciviruses infect a cell: <https://www.youtube.com/watch?v=SV85M_aF_6k&t=59s>

**KEY FACT**

**Caliciviruses represented by norovirus and sapovirus exist not only in human but also in other animal species. Clinical manifestations are gastroenteritis, respiratory infections, vesicles and hemorrhagic skin diseases and others symptoms depended on the viruses. Inapparent symptom of calicivirus infection is also recognized. Calicivirus is stable in the environment and found sometimes in contaminated food or water sources. In addition to intragenomic mutation, intragenomic recombination is the common phenomenon that usually found in calicivirus genome. The genomic recombinations have been reported among the strains within the same animal species. For diagnosis and molecular epidemiological study, several laboratory methods are available, such as genetic molecular analysis, enzyme immunoassay and immunochromatography, which developed by using the antibody against virus-like particles. The reactivity between virus and host immunity is type specific and the titer of cross reaction is not so high. There are evidences that the new variant strains are emerged and spread quickly year by year. Histo-blood group antigen (HBGA) is one of the specific host cells receptor for calicivirus. Infectivity of the virus depends on specificity of the HBGA on the host cells. Because of the inability to culture human norovirus and sapovirus, pathogenesis and immunological data are limited. So far, only feline calicivirus and mouse norovirus are cultivable. Animal model studies for calicivirus by gnotobiotic pigs with human calicivirus and mouse with mouse norovirus are mainly used for experiments of pathobiological study, treatment and vaccine development.**