

Togavirus and Flavivirus

About togavirus and flavivirus

Togaviruses and Flaviviruses are groups of viruses within the alphavirus genus, including viruses such as Rubella, Dengue fever, Zika virus and West Nile Virus.

Routes of transmission – how the viruses spread

Both togaviruses and flaviviruses are readily transmitted by ticks and mosquitoes. Reptiles can act as carriers of these viruses once bitten by a tick or mosquito carrying the disease. Affected reptiles do not always show signs of disease themselves but will act as reservoirs of infection for other species. If this is transmitted to species that are not natural hosts for the virus – again via a mosquito or tick bite – it can lead to symptoms such as enteritis and encephalitis (inflammation of the brain).

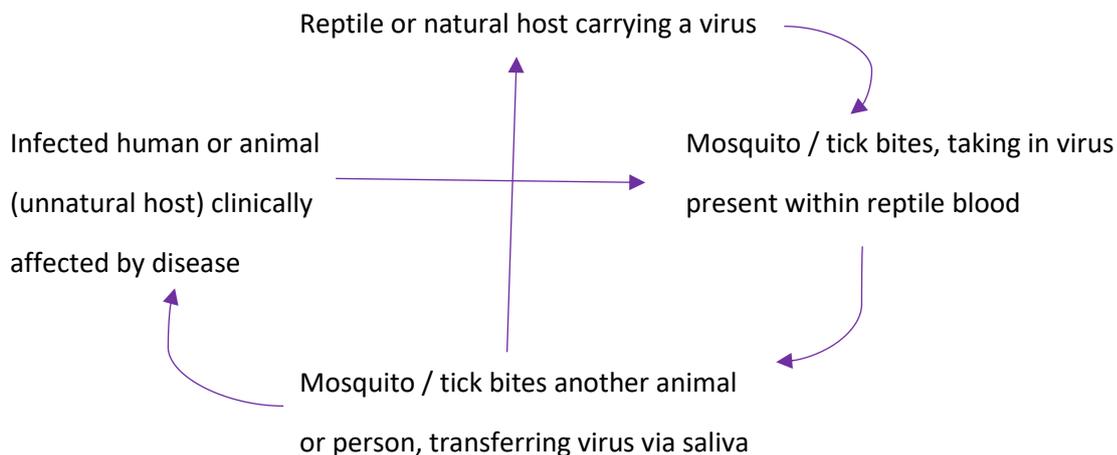
It is also important to note that some of these viruses may be passed from an affected parent to their young via the natural reproductive cycle.

Increasing numbers of reptiles are being imported and exported around the world, so it is imperative that an awareness of these viruses exists, and that control measures are put in place.

Togavirus, flavivirus and you

Both togavirus and flavivirus are zoonotic, meaning that they can be passed between different species, including from animals to humans. These diseases can cause severe illness in people, including inflammation and swelling of the brain, which may be life-threatening.

Transmission cycle:



Diagnosis:

Many reptiles will display no clinical signs if carrying togavirus or flavivirus, however some strains of the virus will cause depression, lethargy and/or anorexia in some species (e.g. American alligators affected by West Nile Virus).

The viruses can be diagnosed by performing blood tests which either monitor the body's immune response to the virus or identifies the RNA structure of the virus itself.

Prevention

Thankfully, flavivirus and togavirus are very unlikely to be encountered in the UK except in imported reptiles from regions of higher prevalence. However, these diseases are transmitted through parasites such as ticks and mosquitos, so it is sensible to reduce the access of these parasites to your pets. For most of us, keeping our reptiles indoors and practicing good hygiene with correct husbandry is more than sufficient.

The type of mosquitos which can carry disease are not usually found in the UK, although some sightings have been reported in recent years. Localised mosquito populations can be controlled by ensuring that areas of stagnant water are removed, to prevent their breeding.

All new or sick reptiles should be quarantined away from the rest of the collection and be inspected for ticks or other parasites before introduction to the collection. Overcrowding of reptiles should always be avoided regardless of health status.

The viruses themselves are easily removed from the environment by thorough disinfection of the affected area (any area the affected reptile has come into contact with).

Treatment

There is no specific treatment for these viruses. Reptiles displaying clinical signs should be assessed by a veterinarian who will be able to advise on supportive care and on any extra nutritional needs that the reptile may require.