

Download Histopathology Of Some Viral Infections Of The Central Nervous System

The central nervous system (CNS) comprises the brain, spinal cord, meninges, and the nerve roots emerging from the cord. All varieties of infectious disease (ID) agents can damage the CNS: viruses, prions, bacteria, mycobacteria, fungi, protozoa, helminths, pentastomes, and arthropods.

Figure 2. Rabies. (a & b). Hippocampus with every neurone containing one or more Negri (viral inclusion) bodies. (c) The immunohistochemical stain confirms rabies (image courtesy of Dr A Fooks).

Invasion of the CNS seems to be a rare event in most viral infections. In the case of some infections, such as JE, there may be only 1 case of encephalitis for every 300 to 500 asymptomatic infections. Eastern equine encephalitis virus produces a much higher proportion of encephalitic cases than other togaviruses.

190 CME MAY 2011 Vol.29 No.5 Viral infections of the central nervous system (CNS) include both acute and chronic conditions caused by a broad range of different viruses.

Introduction. The central nervous system (CNS) comprises the brain, spinal cord, meninges, and the nerve roots emerging from the cord. All varieties of infectious disease (ID) agents can damage the CNS: viruses, prions, bacteria, mycobacteria, fungi, protozoa, helminths, pentastomes, and arthropods.

Herpes simplex encephalitis (HSE) remains one of the most devastating infections of the central nervous system, with high morbidity and mortality despite available antiviral therapy. About half of treated patients die or are left with severe impairment. 11 Clinical suspicion of HSE is suggested by encephalopathy and/or focal neurological symptoms in a febrile patient, but these are not specific.

Original Contributions Histopathology of the Central Nervous System in the Acquired Immunodeficiency Syndrome ROY H. RHODES, MD, PHD Histopathologic findings in the central nervous system in 100 autopsy cases of the acquired immunodeficiency syndrome (AIDS) gave evidence of a variety of opportunistic infections and probably of infection by ...

Viral infections have a broad range of clinical and pathological presentations, ranging from acute to chronic disease and from “benign” aseptic meningitis to fulminant necrotizing encephalitis. 3 Survivors often have severe sequelae. 3 As with bacterial infections, the majority of cases of viral CNS infection are diagnosed clinically and don't proceed to brain biopsy. Tissue diagnosis is usually sought in chronic or fatal cases.

Some infections are innately virulent and cause damage directly (e.g. HSV); others depend on the host response to do much of the pathology (e.g. tuberculosis, some patterns of HIV encephalitis).

The central nervous system (CNS) is protected by a highly complex barrier system, yet a wide variety of viruses still manage to gain access and induce disease. In fact, the number CNS viral infections each year is greater than all bacterial, fungal, and protozoa infections combined [1].

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