Neuroinfectious Diseases
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Neurotropic viruses have bee reported to lead to various eurodege erative diseases [1,2]. The cause a d the mecha isms are although u determi ed. Various case reports suggest that o the e try of these viruses withi the Ce tral Nervous System (CNS) the reside t microglial cells become activated [3,4,5]. Microglial cells o activatio lead to release of various chemoki es a d cytoki es which results i bysta der killi g of the euro s [6]. Viruses ofte possess a short life cycle withi their hosts which after replicatio to a certai exte t gets cleared off by the host immu e respo ses. The major destructio is brought about by the aftermath [7]. This has bee reported i cases of various RNA viruses like Japa ese E cephalitis Virus (JEV), Chiku gu ya Virus (CHiKV), De gueetc [7,8]. O the other ha d there are various viruses which prefer to i tegrate their ge ome i to the host a d persist withi them. These viruses ofte get triggered to fast replicatio whe a seco dary stimula t or i fectio attacks the host. Virus i duced apoptosis of euro al cells is o e of the major cause of eurodege eratio . The process of apoptosis is ofte triggered as a host respo se to various metabolic stress brought about withi the cell due to viral replicatio [9,10]. He ce this u certai ty i gaugi g the behaviour of each virus makes it difficult to augme t a u iform a ti-viral strategy agai st these i vadi g eurotropic viruses.

Neurotropic viral i fectio leadi g to e cephalitis has ofte bee reported to be li ked with cog itive a d motor disability i the survivors. There are several i sights to the questio which reaso s that these viruses may have some target cells withi which they prefer to replicate [11-15]. He ce various studies i a imal models have bee co ducted to surface the u derlyi g mystery of these eurotropic viruses. I case of eurotropic RNA virus full symptomatic a imals show familiar symptoms such as hi d limb paralysis a d decerebrate posturi g [16,17]. The moveme t disabilities ofte resemble that of Parki so 's disease. He ce detailed studies o molecular basis of the pathoge esis of imals
saoptu der the mag ifyi g glass a commo tre d is ofte observed. All these eurodege erative diseases bri g about the euro al death through a commo mecha ism of euro al apoptosis [18,19]. I most of the eurodege erative diseases there are primarily two root causes o e happe s to be ge etic a other happe s to be sporadic. I this report we are co cer ed about sporadic cases si ce eurotropic virus attack i early stage of life may stimulate the o set of these eurodege eratio s [20, 21]. I sporadic cases of various eurodege erative diseases phe ome a like oxidative stress holds a importa t cue [22,23]. Neurotropic viruses bri g about eurodege eratio stimulati g oxidative stress leadi g to processes such as e doplasmic reticulum stress (ER stress), mitocho drial stress. These stress i ductio a d starti g of the process of eurodege eratio at some early poi t of life by i fectio of eurotropic viruses may have a persiste t effect i the victim host. It ca be hypothesized that molecules pertai i g to the same pathway may u dergo some mutatio s which through the course of time i flue ce the o set of various eurodege erative diseases.

I co clusio , to address this type of complex problem i vestigators eed to u dersta d each phases of these diseases alo g with their u derlyi g molecular eve ts. With the adve t of various bra ches of moder day i terdiscipli ary scie ce co cepts like systems biology alo g with other omics bra ch of studies eed to be i tegrated to u dersta d a d "fish out" the pivotal molecules which plays key role

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