

Herpes viruses infection

They are DNA viruses it classified into Herpes simplex type 1 and 2 , Herpes zoster (Varicella zoster) ,Cytomegalovirus , Human herpes virus 6 and 7 ,Epstein – Barr virus and Human herpes virus 8 .

Herpes simplex virus

Herpes simplex are of two types 1 and 2 after primary infection it remain dormant in dorsal root ganglia once change or reduce in immunity reactivation of the virus in dorsal ganglia leads to recurrent infection .

Clinical features

Herpes simplex type 1 usually at infancy it infect the gum and tongue lead to gingivostomatitis mistaken as teething or passed as subclinical condition ,this is usually the first infection then the virus enter and remain dormant in dorsal root ganglia where reinfection occur usually in mucocutaneous region in mouth as herpes labialis begin as fever and parasthesia followed by vesicular rash , pustulation and crusting with pain and condition can reoccur after cure . Same lesion may occur in the finger called herpetic whitlow , infection may occur in eyelid and cornea lead to keratitis called dendritic ulcer which may lead to blindness , the most serious infection is to the brain lead to encephalitis usually affect the temporal lobe of the brain cause haemorrhagic necrotizing temporal lobe cerebritis which affect the consciousness and may cause coma , encephalitis may affect children when cervical canal of mother infected at labour lead to infection of the brain of the fetus so to prevent this condition at labour must do caesarean section . Herpes simplex type 2 lead to genital infection like vulvovaginitis ,balanitis and infection of birth canal .

Diagnosis

Usually clinical but in difficult cases PCR is used to diagnose the condition or viral culture with electron microscopy study from site of lesion .CSF fluid in case of encephalitis .

Treatment

Acyclic antiviral like Acyclovir 200 mg 5 times /day or Famciclovir 250 mg 8 hourly or Valaciclovir 500 mg 12 hourly , drug should be used within 48 hours but in severe conditions regardless time is used . In complicated cases ,encephalitis or unable for oral intake parenteral Aciclovir 5-10 mg /kg 8 hourly is given by infusion .

Herpes zoster (Shingles)

It primarily infect human then it remain dormant in the dorsal root ganglia where it reactivated later in life ,so it infect skin dermatome according to nerve root area, usually in the chest ,trunk or any dermatome where after 3-4 days of incubation period the patient has short period of viraemia then parasthesia followed by 24 hours later with vesicular rash associated with fever and pain at dermatome area then it crusted and heal ,the patient usually develop neuropathic pain for 1-6 months (post herpetic neuralgia) usually common in older age . If it infect Geniculate ganglia it infect the facial nerve with lower motor facial palsy at same site with loss of taste and buccal ulceration and vesicular rash in the external auditory canal it similar to Bell's palsy . it may infect trigeminal nerve ophthalmic division root where it infect cornea lead to corneal ulcer and it threaten the vision . It may infect cerebrum it cause symptoms similar to cerebrovascular disease .

Management

Treated with Aciclovir 800 mg ,5 times daily for 5 days , Famciclovir 500 mg 3 times daily for 5 days , or Valciclovir tablets 1 gm 3 times daily for 5 days . Post- herpetic neuralgia treated by Amitriptyline tablet 25- 100 mg daily or Gabapentin tab. 300 mg daily .

Chickenpox (varicella)

It is caused by Varicella zoster (Herpes zoster) , primarily infect patient at childhood usually by aerosol route and contact with skin eruption .

Incubation period 1-2 weeks .

It cause severe infection at adulthood ,pregnancy and immunocompromised patients. The patient complains of fever , mucosal rash then rapid centripetal rash in the trunk spares the limbs ,the rash is macular then vesiculate and crusty (the rash is variable) it aggregates as crops where new crop appear every 2-4 days ,secondary bacterial infection may occur due to excoriation of skin itching by nails ,then the rash crusted and disappear and cure of the patients .It is well tolerated in children but it may cause pneumonitis in adult especially in smoker which may be fatal ,if infection occur in early pregnancy 3% it cause neonatal damage , if it occur prior labour it cause severe neonatal varicella , in some cases after 7-10 days of cure the patients they develop cerebellar ataxia which is self limiting condition .

Varicella Zoster (Chicken pox)

Diagnosis

It usually diagnosed clinically but in difficult cases it diagnosed aspiration of vesicles rash and studied by PCR or by electron microscopy . Antibodies is positive in primary infection or fourfold rise in titer .

Management

In primary infection no need to give treatment because it is self limiting disease . Acyclovir ,famciclovir or valciclovir is indicated in complicated cases like pneumonitis ,pregnant women and immunocompromise patients . Varicella zoster immunoglobulin is indicated in any patient whom contact with chicken pox patients who are immunocompromise patient (HIV, organ transplant ,using high dose steroids ,chemotherapy) ,neonates in contact with chicken pox infected mother especially if he is underweight .

Human herpes virus 8 (HHV-8)

It is usually sexual transmitted disease it cause Kaposi 's sarcoma in HIV and non HIV patients .

Human herpes virus 6 and 7 (HHV-6 and HHV-7)

It cause benign febrile illness in children with maculopapular rash (Roseola infantum).