

## **SUMMARY**

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Febrile convulsions are the commonest neurological problem of childhood, with an overall incidence of 2-5% in preschool children. Boys are more affected than girls and black children than white ones. Most cases occurs during the second year of life.

Concerning the exciting causes and pathogenesis of febrile convulsions, it has been found that they occur when a susceptible child is exposed to unpleasant stimuli like fever or infection. Viral infections are particularly important. *Shigella* gastroenteritis is the commonest bacterial infection associated with febrile convulsions. The susceptibility to febrile convulsion is determined genetically as an autosomal dominant trait with variable expressivity and incomplete penetrance. Other predisposing factors are decreased GABA level in CSF and pyridoxine deficiency. Immunodeficiency, prior neurodevelopmental status and perinatal history are minor contributors to seizure propensity.

Clinically, simple febrile seizures are usually brief and generalised tonic in character. Lumbar punctures are often performed on children with febrile seizures to exclude meningitis as the cause of the seizures.

Sometimes complications of febrile seizure occurs as: epilepsy and other neurological deficits namely hemiplegia and mental subnormality. It has been found that a single febrile fit is potentially associated with the risk of recurrence. Fortunately, Death rarely complicates febrile convulsions. These complications are more likely if one or more of the following risk factors is present: complex clinical character of the attack, young age of the child at the onset of the first seizure, presence of pre-existing neurological abnormalities, recurrence of the febrile attacks, family history of febrile or a febrile seizure and lastly abnormal EEG record ten days after the febrile illness.

To assess a cause of febrile convulsion, we have to take a detailed history, make examination of the whole body, especially the nervous system. Occasionally it is advisable to perform some investigations like EEG, lumbar

puncture, blood picture, to diagnose the underlying illness and exclude meningitis or encephalitis.

Febrile seizure must be differentiated from other causes of convulsion as: Tetanous, Encephalitis, Meningitis, Brain tumours, hemorrhage, epilepsy and poisoning with convulsant drugs.

Management of febrile convulsion is composed of emergent control of the acute episode to avoid its prolongation by intravenous or rectal diazepam, lowering temperature by antipyretics and cool sponges, laying the child one side and suctioning to avoid aspiration and treatment of original illness with proper antibiotic. Next is the prophylactic treatment for prevention of further episodes or at least shorten them if they occur and thus prevention of subsequent complications. One of these regimens is the intermittent drug therapy which suggests the use of intramuscular phenobarbitone in loading dose or oral or rectal diazepam only at the onset of fever. The second regimen is the continuous drug prophylaxis which suggest, the continuous use of drugs after the first or the second seizures,

in the presence of recurrence risk factors. This regime suggests continuation of treatment for 2 seizure-free years or till 5 years of age whichever comes first. Drugs used in continuous prophylaxis are phenobarbitone, valproic acid in the proper doses.