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FEBRILE SEIZURES A CASE REPORT:-

Ponemoni Divyani^{1*}, Dr. A Srinivasa rao ², Dr. AV Kishore Babu³, K. Divya⁴, T. Taruni⁴

Ponemoni Divyani^{1*}pharm D V year, Bhaskar pharmacy college, Yenkapally, Moinabad, Telangana

Dr.A . Srinivasa Rao, M. Pharm.,Ph.D.,F.I.C.

Dr. AV Kishore Babu, pharm D, PhD.

K. Divya² Pharm D V year, Bhaskar pharmacy college, Yenkapally , Moinabad, 501504

T. Taruni² Pharm D V year, Bhaskar pharmacy college, Yenkapally, Moinabad, 501504

ABSTRACT:-

A 7 months old female child admitted in pediatric ward with chief complaints of fever since morning, one episode of seizures activity, 10 episodes of stools. Febrile seizures are the most frequent of seizure disorder in childhood. Evaluated in OP showed the result of Febrile seizures. She has a past history of developed loose stools sudden onset of watery inconsistency .But not blood tinged or not associated with vomiting's. Then in the morning she developed sudden onset of high grade fever, which is relieved on medication. It is associated with rash,1-episode of seizures activity. The signs include ; up rolling of eyes(+), fisting of hand (+) .But not associated with deviation of mouth, and no urine incontinence. No signs of dehydration was found. No signs of pallor, icterus, cyanosis, lymphadenopathy, oedema. Initial investigations were done. Then she was started with IVF (RL- 23ml/hr) , antibiotics (ceftriaxone), Benzodiazepines(frisium, midazolam) probiotic (enterogenia).

KEYWORDS:-

FS(febrile seizures)., LP(lumbar puncture).,MTS(mesial temporal sclerosis).

INTRODUCTION:-

These are seizures, which occurs between 3 months to 5years of age, associated with fever but without evidence of Intracranial infection or defined cause for seizure, and without any H/O seizures earlier. These febrile seizures occurs because the developing brain cannot withstand rapid and large increase in temperature.

Types of seizures:-

1.Simple febrile seizures:-less then 15 minutes of duration, no focal features, s/o focal origin of seizure , only one attack in one febrile episode of fever

2.Complex febrile seizures:-more than 15 minutes of duration, focal features(>10minutes) or repetitive(reoccurs within 24 hours) , more than one attack in one febrile episode of fever

TYPES OF SEIZURES IN FEBRILE SEIZURES

- FS are generalized tonic, clonic ,or tonic-clonic, occasionally hypotonic, but never myoclonic.
- Focal Seizure-unilateral followed by Today's paralysis
- Most febrile seizures occurs in first 24 hours of an illness, in children < 3 years old and with fevers at 39°c or higher.
- The rapid rise of children with FS¹ will have a reoccurrence
- risk factors include for reoccurrence FS are:-
 1. First FS before age of 1 year
 2. Family H/O FS
 3. Low grade fever /short duration of fever at time of seizure

With all these 3 risk factors of FS have 60%to 70% of reoccurrence rate

EPIDEMIOLOGY:-2-4% of all children below the age of 5 years suffer from FS¹ incidence equal in both sexes ; 20-40% have family H/O FS (genetic predisposition to FS¹)

ETIOLOGY:-Usually, a higher than normal body temperature causes febrile seizure. Even a low grade fever can trigger a febrile seizure. The fever that trigger febrile seizures are usually caused by viral infection, less commonly by bacterial infection. The flu(influenza) virus and the virus that causes roseola, which often are accompanied by high fever

INVESTIGATIONS:-

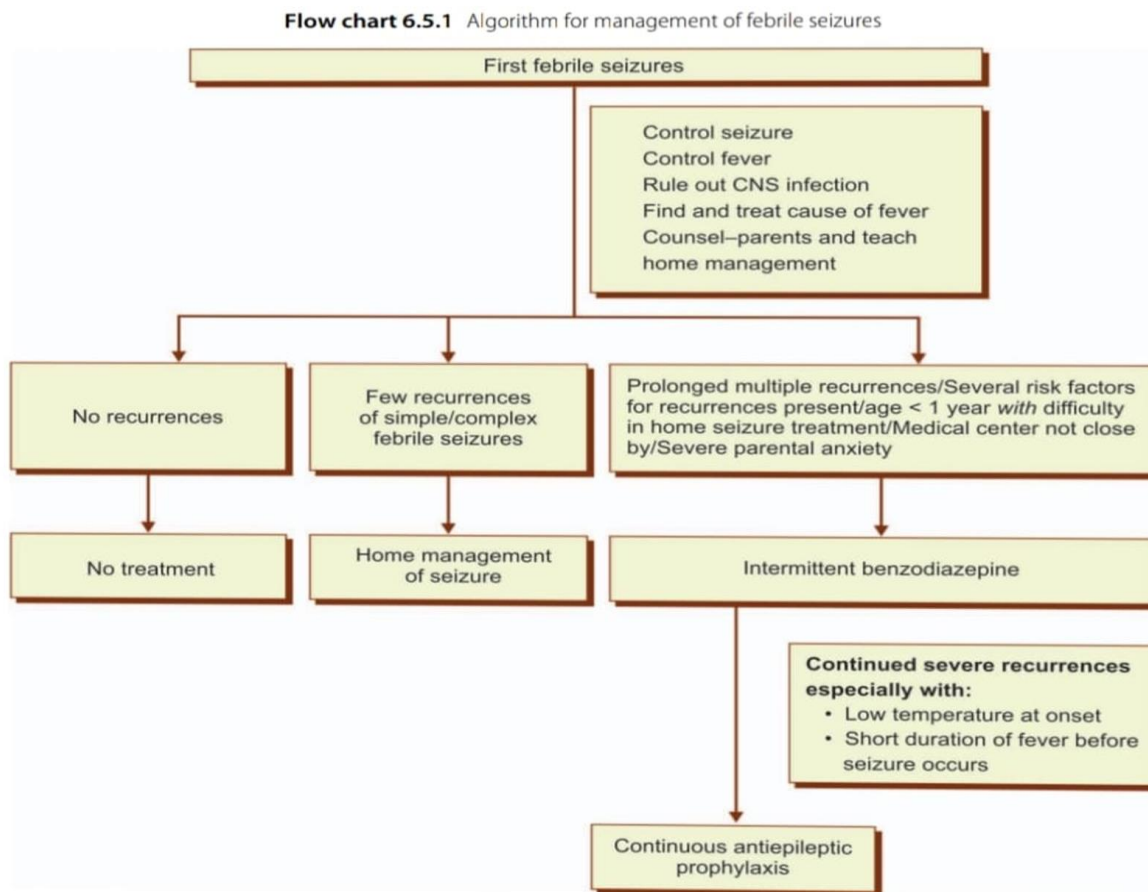
- The American Academy of Paediatrics has practice parameters that address the evaluation of first simple FS¹in neurologically healthy children between 6 months – 5years
- The diagnosis of FS is based on a thorough history; Differentiating non seizure events (rigors in a febrile child, breath holding spells or syncope) from seizure is important

HISTORY AND PHYSICAL EXAMINATION:-

- Vital to look for evidence that child may have meningitis/encephalitis causing seizure
- Important to ask about possible ingestion of drugs or toxins and history suggestive of metabolic disorder/derangement from unusual intake of fluid/electrolyte losses

The guidelines recommended strongly lumbar puncture (LP²) – SFS in a child 12 and 18 months and for older than 18 months if they have meningeal signs who recently received antibiotics.

MANAGEMENT :-management of attack of first FS subsequent long -term management of FS FEVER-Paracetamol (15mg/kg 8 hourly) when temperature>35.5°c or ibuprofen and tepid that is warm, sponging



Source: Reproduced from Indian Journal of Pediatrics Special Supplement on Epilepsy 2007

Risk factors :-

1. Risk of recurrence:-35% of all children will have recurrences after first FS
2. Risk of epilepsy:-2-5% [preventing FS cannot decrease risk of epilepsy]
3. Risk of mesial temporal sclerosis (MTS):-There is strong association between development of refractory temporal lobe epilepsy/MTS and complex FS
4. mental & neurological development:-is remains normal
5. Mortality:-not increased in children with FS as compared to normal population

TREATMENT INCLUDE:-

Management of the ABC & seizure control if still fitting (give rectal 0.5mg/kg Diazepam). If fit lasts >5minutes , then follow seizure protocol. (Iv-0.3mg/kg). If infectious bacterial sepsis suspected use antibiotics.

Variables	Risk factor	Risk ratio	95% CI
Individual child	Younger than 12 months at first febrile seizure*	2.40 (26)	1.42–4.06
	Family history of febrile seizures*	1.89 (27)	1.23–2.90
	History of febrile seizures*	1.98 after one previous recurrence (24).	1.72–2.27
		2.59 after two or more recurrences (24).	2.20–3.04
Initial febrile seizure	Complex febrile seizure	1.08 (27)	0.71–1.64
	Febrile status epilepticus	0.94 (27)	0.38–1.83
Fever	Fever <40°C*	1.54 (24)	1.25–1.89
	Short fever duration (seizure occurrence within 1 h of fever onset)*	4.62 (26)	1.35–5.80

*Denotes statistically significant risk factors.

CASE REPORT:-

A 7 months old female child admitted in paediatric ward with chief complaints of fever since morning 1 episode of seizures activity, 10 episodes of stools

Evaluated in OP showed Febrile Seizures. She has a past history of loose stools sudden onset of watery Inconstiency not blood tinged not associated with vomiting. Then in the morning she developed fever sudden in onset, high grade relieved on medication associated with rash, 1-episode of seizures activity up rolling of eyes (+) , fisting of hand (+) no mouth deviation, no urine in continence.

Natal history of baby:- cried immediately after birth bodyweight-3 kg, No H/O -NICU admission. Developmental H/O attained as per age, immunization H/O as per age , no specific family history.

No H/O seizures activity, 4°consangeinity ; Baby is pink , active, smoking, feeding, well passed urine decreased stool, oral intake -good urine output adequate, no signs of dehydration no pallor; icterus, cyanosis, lymphadenopathy, oedema. Heart rate -136/min ;SP02-98%@RA, Temperature- 100°F; RR -53/min, General examination- CVS -S1, S2(+), RS-BAE(+), clear, P/A soft, CNS-NAD.

She was started with IVF (RL-23ml/hr) Antibiotics (ceftriaxone,) Benzodiazepines (T. Frisium, inj. Midazolam), probiotic(enterogenia) Analgesics and Antipyretic(neomal suppository 80mg , P100 drops) , multiminerall supplements (Syp Calcimax) , ORS socket in 1 litre of water, soliderm cream, syp. Potkllor.

DISCUSSION:-

The female paediatric patient was recently diagnosed with Febrile Seizures. Duration: since 24 hours. She has been admitted in hospital with symptoms of fever, 1-episode of seizure, 10 episodes of stools. After lab investigations she has been suffering with hypokalemia, and no significant serological abnormalities detected. Treated with medication, antibiotics, benzodiazepines (frisium, midazolam), Antipyretics, analgesics.

The attendants have been explained about the nature of the disease, causes and future course of illness. Also explained about the precautions to be taken. The patient should need the proper follow up with paediatric has to have a regular usage of medications and intermittent investigations to see the status of disease control.

SIDE EFFECTS:-

1. After administration of ceftriaxone baby was developed rashes, blistering, peeling, of skin. Then to treat the side effects (rashes, blistering, peeling of skin) physician prescribed the siloderm cream.
2. Syrup Calcimax and Potklor on long term use causes diarrhoea. It is treated with ORS sockets in 1Litre of water to treat imbalance.

PHARMACIST INTERVENTION:-

1. Firstly ensures adequate ventilation and place the patient on the floor on their left side.
2. Place the child on his/her side to prevent choking.
3. Loosen any clothing around the head and neck watch for signs of breathing problems including bluish colour in the face.
4. Try to keep track of how long the seizures lasts.
5. Put something soft & flat, like a folded jacket, under his/her head, remove eyeglasses.
6. Parental educational and counselling is important.

CONCLUSION:-

Thus the main motive of this written report is to create awareness to the patients attendants (patient is infant) about Febrile Seizures. The treatment of Febrile Seizures mainly focuses on the reoccurrence of disease while minimizing morbidity and mortality.

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