In Pediatrics

DENGUE IN CHILDREN - WHO guidelines UPDATE

- Majority of pediatric dengue are mild and managed at home with just ORS.
- Paracetamol @ 10-15 mg /kg/dose is the only antipyretic recommended (Avoid NSAID)
- Monitor the child with CCTVR - Colour of the child, Capillary refill time, Temperature, pulse Volume, Respiratory rate.
- Never Do Cbc on day 1 of fever
- Admit if there is warning signs - Excessive tiredness or drowsiness, reduced urine output, abdominal pain, reduced appetite, cold hands & feet, bleeding mnfn, increased hematocrit PCV, persistent vomiting or diarrhea, fast breathing, cyanosis, low SPO2 <94
- Use only NS Normal Saline for IV Fluids therapy.
- Monitor Hematocrit and Urine output as Inpatient.
- Do not treat patients based on Platelet count alone - remember Dengue is not a Platelet disease
- Do not prescribe Steroids, Antibiotics.

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A 10 year old boy was seen for a fever of 3 days duration …A physical examination was suggestive of a viral fever with flu like symptoms. He was prescribed paracetamol and symptoms based home treatment plan. 2 days later since the fever was unremitting, the parent asked for some more medication to bring down the temperature over the telephone.

He was asked to give mefenamic acid syrup as an add on therapy …2 days later the boy presented to the ER with features of shock and investigations revealed secondary Dengue infection and acute kidney injury (AKI).

This case vignette demonstrates the perils of prescribing without adequate evaluation in a common clinical scenario. In tropical countries with a high case load of viral hemorrhagic fevered, like Dengue, the initial evaluation may not reveal any diagnostic clues. When the fever doesn't follow the expected clinical course it is prudent to reevaluate the patient physically rather than prescribe empirically.

The second noteworthy issue of this vignette is regarding the choice of antipyretic.. Paracetamol has been the mainstay of therapy for symptomatic management of fever especially in children. Whilst there are other antipyretics available like ibuprofen,mefenamic acid,salicylic acid and nimesulide and irrational combinations of these drugs ,none of these are preferred over paracetamol.

Paracetamol at the prescribed doses has excellent safety profile as compared to the other choices.

Mefenamic acid, an NSAID, was initially evaluated as an alternative to paracetamol and found to be effective. However, it's darker aspects soon became clinically apparent with severe side effects like colitis, acute kidney injury, gastritis, seizures and mucosal disease being increasingly reported.

During acute febrile episodes, children tend to dehydrate faster than adults. In the face of dehydration renal perfusion is highly dependent on local prostaglandin production. Mefenamic acid supresses this compensatory process and precipitates acute kidney injury.

MORAL OF THIS STORY:

When in doubt, reassess and revise your diagnosis.
Ask for appropriate investigations and categorise the nature and severity of the disease better
Stick to known devils than unknown devils !

References:

Rational use of antipyretics …Y.K .Amdekar
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