

Newsletter Issue 12

WHO ARE WE?

M.J. Charitable Trust is working to provide education and health services to the impoverished sections of society in India.

Dr. Ashok Kumar Jainer established the trust in 2008 to fulfil his dreams of a better society for all. This Trust provides selfless and unconditional service to the mankind. Everyone working in the Trust is committed, dedicated and working unpaid, there is no admin cost. The Trust is registered and has been awarded 80G of the income tax act of India.

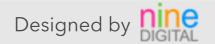
VISION: A world in which everyone obtains good education and health.

MISSION: We seek a world of hope and working to ensure that kids growing up in poverty get an excellent education and health.

VALUE: Improve well being of people and convert their suffering into self-reliance. We treat them with respect, dignity, compassion and always be responsive to their needs.

OBJECTIVES

- 1. Provide quality assured education for children growing in poverty.
- 2. Provide prompt and safe health care facilities to the poor in rural areas.
- 3. Provide food and basic amenities for people living in slums.
- 4. Raising awareness of common illness in rural part of India.





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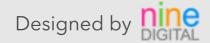
A Glimpse of Our Work



Serving the humanity mean service to the God. This widow who get monthly pension from MJ Trust which is barely enough to supply her daily living expenses. She developed Gall bladder stones which was a serious blow and unaffordable task. MJ Trust came forward, and she had a successful operation.



God Finds a New Way





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This young boy has ventricular septal defect (hole in heart), his mother is the only earning member, and works as a house holder worker. She couldn't afford operation, and lost hope as his growth was stunted due to worsening of his clinical condition. God listened to her prayers. One day she came in contact with MJ trustee member who arranged not just free operation, but also the blood needed for it. He is now catching up on his growth, and leading a healthy life.

LISTEN TO OUR EXPERTS



Dr Renu Sudhar MBBS, MD, DM, Associate professor at PGI Chandigarh on Seizures and Epilepsy in Children.

Seizures and epilepsy in children

1. What percentage of children in India suffer from epilepsy?

Epilepsy is the most common neurological disorder that affects 50 million people worldwide. Over 60% cases of epilepsy start in childhood and 40 million people with epilepsy live in developing countries. 10% of children in south east Asia suffers from neurodevelopmental disorders and epilepsy is one of the most common conditions among them. Studies have reported 1-2% of children in India suffers from epilepsy. The reported incidence of epilepsy in Indian children is 5-6 cases per 1000 population.

2. What are the common causes of epilepsy?

Most common type of seizures in children are febrile seizures, about 1% of children can have seizures during fever. Other causes are hypoxic ischemic brain injury at birth, cerebral palsy, structural brain malformation, CNS infections and genetic disorders. Among neurological infections meningitis, encephalitis and neurocysticercosis are most common cause of seizures in Indian children.





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3. Can epilepsy be prevented?

Young children are susceptible to seizures during high grade fever, hence rapid rise in temperature should be avoided. Other preventable cause of seizures are CNS infections. Adequate immunization against Pneumococcus, can prevent serious pneumococcal meningitis. Neurocysticercosis is preventable cause of epilepsy in tropical countries. Adequate hand hygiene practices, sanitation and drinking water supply helps in prevention of infectious disorders.

4. Is it more common in children with learning difficulties?

Epilepsy is common in children with other neurodevelopmental disorders like cerebral palsy, autism, intellectual disability and learning disabilities.

5. What percentage of children are cured of epilepsy and what percentage of children require lifelong medications.

Children with acute symptomatic seizures like seizures in association with acute illness often subsides once the acute illness is taken care of. Examples are febrile seizures, seizures in association with diarrhea, dehydration, metabolic disturbances and CNS infections. Other group of benign childhood epilepsy syndromes often have seizures in particular age group and subsides completely once children grow.

6. What are the types of epilepsy and treatment options?

Epilepsy can be divided by underlying cause, age of onset and types of seizures. Symptomatic epilepsies are secondary to underlying neurological disorder like sequelae of prenatal, perinatal and postnatal brain injury, cerebral palsy, head trauma, brain malformation, CNS infections. Other group of epilepsy are genetic or cryptogenic where the exact etiology is not known, most of these are genetic epilepsies or channelopathies. There are several therapeutic options for epilepsy are available as antiepileptic drugs, vitamins, ketogenic diet, epilepsy surgery, and vagal nerve stimulation.

7. Can it be cured by herbal medications?

Management of epilepsy require carefully selected therapy with appropriate antiepileptic drugs for adequate duration.

8. Does epilepsy affect children's education?

Usually febrile seizures are the most common type of seizures in children, these are infrequent and do not affect the brain development of children. However, frequent, poorly controlled seizures adversely affect the intellectual functioning of children.





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9. What precaution children should take?

Seizures are sudden, unexpected events and often children tend to lose consciousness and balance during the seizures. Seizures can sometimes lead to unexpected falls, accidents and injuries. Children with epilepsy should be in supervision while swimming, driving, playing, road crossing, etc. rarely seizures can be associated with sudden unexpected death. While child is having seizures parents are advised to keep child in left lateral position, loosen the clothes and avoid putting anything in mouth or forcefully opening the mouth. Mostly seizures tend to subside by 1-2 minutes spontaneously but rarely seizures can last long. Prolonged seizures are deleterious to brain, so parents should be advised to use intra -nasal or buccal or rectal administration of midazolam or diazepam in case of seizure lasts for > 1-2 minutes.

10. What investigations are needed for diagnosis of epilepsy?

Diagnosis of epilepsy is clinical and supported by investigations. A home video of the seizure often is helpful in understanding the type of seizure. The most useful investigation are EEG, and MRI brain. Other investigations might be required based on the underlying etiology.



Dr. Sarika Gupta MD, Ph. D. (Pediatric Asthma) on Child Mortality due to Respiratory Diseases in India

Health of children is of paramount importance as it has a direct impact on the overall health status of the country. In the Indian context, this is of special significance as children comprise around one third of the total population of the country. However the child mortality rate reflects challenges to embark on.





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The government of India has recently released NFHS-4 data. It is little bit blissful as it states that Infant mortality rate (IMR) has reduced from 57 to 41 per thousand live births and Under-5-mortality rate (U5MR) has reduced from 74 to 50 per thousand live births though the state wise variability persist.

Out of this mortality, about 25% of deaths are due to acute respiratory infection (ARI). However prevalence of ARI has reduced from the level of 5.6% in NFHS-3 to 2.7% in NFHS-4. Apart from RTI, pulmonary tuberculosis and Human immunodeficiency virus (HIV) associated pulmonary illnesses also add to the burden of respiratory illnesses. RTI contributes as an important cause of mortality for HIV infected children too. Asthma prevalence in school going children varies from 4%-20% in different parts of India. Although mortality due to asthma is lesser but it contributes to morbidity in term of frequent hospitalizations, Emergency Department visit and missed school and play days.

Different programs launched by Government of India including ARI control program, Mission Indradhanush (Including vaccination against Haemophilus influenzae B, Streptococcus pneumonia, measles, tuberculosis), Infant and Young Child Feeding, Mothers' Absolute Affection (MAA) Program and Integrated Management of Neonatal and Childhood Illness (IMNCI) has been instrumental directly or indirectly in reducing the mortality due to ARI.

Despite it, India has a long pathway ahead to try harder to reduce this mortality further down. The pivotal measures for decrease in mortality due to ARI comprise a rostrum of Protect, Prevent and Treat. Protect by following good health practices since birth, Prevent infection by following steps to stop infection transmission and Treat by time and in an appropriate way.



Dr. Karuna Verma (MBBS, MD (Paediatric), Consultant Paediatric at Ghaziabad on Chamki Fever





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Since the 1990s, district Muzaffarpur, Bihar has recorded a large number of child deaths from an acute unexplained neurological illness, in the months of June and July (Litchi harvesting season. Locally it is known as" Chamki fever". Who gets affected:

The disease affects only malnourished children of poor families. Children are between the ages of two and fifteen. Majority of them are from families camping in litchi orchards. They have skipped dinner the previous evening and had only litchis Children of well-to-do families never get affected

Symptoms:

Frequently the onset of disease is in the early morning (4-7 AM) Illness starts suddenly Children are found vomiting Display abnormal movements Convulsions Semi consciousness followed by unconsciousness May or may not have fever Disease progress very fast and is fatal if not treated urgently

What is the cause

Muzaffarpur outbreaks are investigated by different researchers and investigating agencies in recent times with altogether different findings and conclusions. Some popular ones are:

1. Unexplained neurological illness caused probably by a toxin contained in litchi.

- 2. Outbreaks caused by heat
- 3. Some Bat virus
- 4. Some non-JE virus
- 5. Pesticides used in cultivation of litchi

There is now a good amount of data supporting the notion that these outbreaks are associated with the presence of toxins, namely Hypoglycin A and MCPG in litchi.

Most supported reconstruction of disease pathway:

As per investigations done by the CDC from USA, and Dr. Jakob John and Dr. Arun Shah, the disease pathway has been reconstructed as follows:





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These children of poor families ate nothing but litchis which fell on the ground during harvest and are available for free to them. They go to sleep without any dinner. After prolonged fasting they slip into hypoglycaemia in morning. Because of malnourishment they have no liver glycogen reserve to mobilise glucose from. MCGP and Hypoglycin A in litchi blocks gluconeogenesis. Aminoacidemia develops and affects brain function, leading to hypoglycemic encephalopathy.

Treatment:

Treatment is mainly symptomatic and supportive with correction of blood sugar and electrolytes,

Anti- convulsant, antiemetic, antipyretic etc.

Prevention

Ensure an evening meal to every child

Decrease consumption of Litchis

Administration of glucose as soon as possible to prevent deaths.



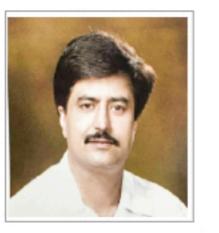


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