

Another must have check-ups for new born babies - split spine defect



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Spina bifida (Split spine) is a birth defect with incomplete closing of the backbone and membranes around the spinal cord. This defect is usually found in the lower back of the baby and in rare cases, may be found in the middle back or neck. Mother's health condition during pregnancy plays a vital role in determining the defect. Apart from genetic conditions, environmental factors may also be a cause in developing split spine. Lack of folic acid in the mother has been one of the most common reasons, which is why mothers are prescribed rich supplements of vitamin B.

Types of this neural Tube defect

Depending on the amount of closing in the backbone, this defect is divided into two types namely -

1. **Spina bifida occulta** - this is the mildest form of split spine where the outer part of some of the vertebrae is not completely closed and the split is so small that the spinal cord does not even protrude. Unlike other types, is very difficult to screen and asymptomatic in most of the cases. Though most people are diagnosed with occulta incidentally during spinal X-rays, it is found in 15% of the world population.

2. **Spina bifida cystic** -

a) **Meningocele** - also known as posterior meningocele, is the least common form which allows the meninges to herniate between the vertebrae. As the nervous system remains undamaged, individuals with this type of defect are unlikely to suffer long term health problems. Teratoma, a type of tumor made up of tissues and other tumor has been identified as the most common cause of this form of defect.

b) **Myelomeningocele**-this form of the defect often results in the most severe complications, where the unfused portion of the spinal column allows the spinal cord to protrude through the opening forming a sac enclosing the spinal elements. This protruded portion results in some degree of paralysis and loss of sensation below the level of the defect. Apart from the protrusion, other symptoms like loss of sensation, deformities of the hip, knees or feet and loss of muscle tone can be

majorly observed.

What are the consequences if untreated?

If a baby is left with the defect, he/she would face a lot of problems later in life. Associated problems include poor ability to walk, learning problems, problems with bladder or bowel control, a tethered spinal cord, and latex allergy.

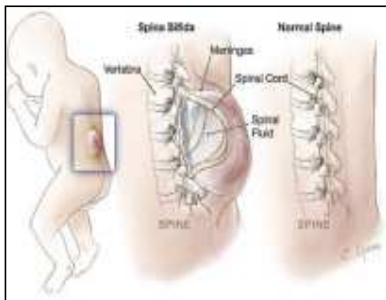
Hydrocephalus is one of the rare though possible conditions in which there is abnormal accumulation of the cerebrospinal fluid (CSF) inside the brain. This can cause an abnormal increase in the head size due to pressure inside the skull, frequent headaches, double vision and poor balance with increasing age. The child after growing as an adult could have personality changes or mental impairment accompanied by recurrent sessions of vomiting, sleepiness, seizures or it could be fatal at any stage of life, if left untreated.

How to diagnose?

Though occulta is rarely observed in the fetus during

into the vertebrae and all the layers of the spinal columns, muscles and skin are repaired.

Usually the surgery consumes 5-6 hours and the baby is kept in a breathing tube till 4 hours of completion of the surgery until he/she comes out of the anesthesia and starts breathing normally. The baby while waiting for feeding can be given nutrition through IV. If there is a need to perform the second surgery to drain out the excess fluid from the brain to its abdomen, the condition can be corrected by placing a small tube in the ventricle (where the spinal fluid is stored in the brain), and shunting the fluid to the baby's abdomen. Once awakening after the surgery the baby can be fed with the mother's milk. Restrictions will be imposed on the baby's positioning till the surgical wounds heal. Doctor may also suggest special positioning aids for support and to avoid any disturbance at the surgical



ultrasound, it is easy to detect myelomeningocele-the most severe protruded complication. Other tests may include Amniotic Fluid test (AFT) which is a medical procedure used to diagnose prenatal chromosomal abnormalities and fetal infections. This test is done to determine the levels of AFP (Alpha fetoprotein) which is a substance made in the liver of the fetus. The presence of high levels of AFP in the mother's blood will confirm that the spine is split.

Usually the defect can be detected during 6th week of pregnancy through ultrasounds. If a doctor (gynecologist) identifies any protrusion (which may be prominent after 8th month of gestation), the case can be directed to a neurosurgeon for early study and treatment. During early detection, mother is advised a diet rich in or supplements of vitamin B as surgery before birth may be a risk factor.

How was the baby treated?

Depending upon the severity of the defect and the mother's body condition, few babies qualify for the prenatal surgery to repair it. If the baby is vaginally delivered and did not need a cesarean, he/she is kept in Neonatal Intensive care unit (NICU) for six hours for observation. Multidisciplinary team goes thorough check up of the baby's condition before taking up the surgery. With this surgery the nerves and the spinal cord are placed back

Post surgical observation and care

The doctor has to keep a check on the amount of CSF, using ultrasounds for at least 4 weeks. This surgery confirms and protects the nerves and spinal cord from any further infection, the muscle sensations and functions will also be normal. If the defect is found on the lower back, the odds of using wheelchair will be null after the surgery.

Prevalence of this defect

Around 5% of the newborn have this defect, which is believed to be due to a combination of genetic and environmental factors. The chances increase by 4% during the second delivery, if the first child had similar conditions or one of the parents inherits this defect. Probability of newborns affected in India is 2 per thousand live births which is far more than 0.4 per thousand in developed countries like US. Only 20% of the cases are diagnosed during pregnancy or immediately after delivery through spinal X-rays or ultrasounds. Around 72 thousand cases have been recorded in India. If timely diagnosis and treatment is provided, 90% of the babies with spina bifida live well into adulthood, 80% have normal intelligence and 75% of them participate in modified sports activities.

Moreh Battalion Assam Rifles reunites lost kids with parents

IT News
Imphal, April 29,

Yesterday became an unforgettable day for Lun Tin Hao and Tin Ngai Ching, when the kids were found roaming around Indo-Myanmar Friendship Bridge early morning. The siblings, aged 3 years and 5 years respectively, had lost their way from Haolenphai village after they went out for playing and ended up 3.5 kms away from their village, leaving the villagers and specially their grandfather a worried lot.

Their fates intertwined with Assam Rifles when troops of Moreh Battalion deployed at Indo-Myanmar Friendship Bridge found them around 0745 hours. Keenly observing the kids and sensing something wrong, the Assam Rifles troops approached the kids and inquired about their wellbeing, place of residence and their parents. Both the kids, being too small, could not convey anything meaningful to the



troops. Meanwhile the grandfather of the kids, Mr Jamkhopao, after realizing that the kids were missing, had raised an alarm in Haolenphai village. The villagers, started their own search in the village, but to no avail. Parents of the kids, attending the Sunday prayers in the Church were completely

unaware of the incident. Without wasting any time, the AR troops part of 26 Sector Assam Rifles under IGAR(South) contacted the locals and two persons identified the kids from Haolenphai village. The kids were provided breakfast by Assam Rifles and the Company Commander along

with his troops took the kids to Haolenphai to reunite them with their family.

The kids appeared familiar with the surroundings of Haolenphai village and immediately identified their grandfather. After verifying that the kids were safe with their family, both the kids were handed over to their grandfather. Their father, Thang Kho Mang, who is a farmer and daily wage labourer was surprised when he came to know of the incident. The entire family was very happy to see the children safe and thanked Moreh Battalion Assam Rifles for the quick response.

The day ended with happy tears in their eyes, smiles on their faces and a memorable day in the life of two siblings.

Although small but important, this incident shows how closely Assam Rifles has got intertwined with the lives of the locals.

First Regional Series of Eastern Himalayan Naturenomics™ Forum 2019 hosted at Sikkim University

Agency
Gangtok, April 29,

The first ever regional series of Eastern Himalayan Naturenomics™ Forum 2019 was successfully hosted at the Sikkim University campus in Gangtok today. The primary theme of the forum was 'Community, Conservation & Livelihoods: The Lepcha Community'. Many eminent speakers from diverse fields were present at the forum and shared their thoughts on the topic.

Moderated by Dr. Sandhya Thapa, HOD, Sociology Department, Sikkim University the session highlighted into the lives of Lepcha Community: history, tradition, folk lore, connection with nature, challenges and threats. Ms. Dawal Lepcha - a trainer in the hospitality industry spoke about the roots of the Lepcha community, their indigenous knowledge and practices and their means of livelihoods. The session was open for discussions and Mr. Gachol Lepcha, Head of the Department - Lepcha Community gave us an insight about the mountain communities closeness with nature. "With Lepcha community, they are protecting and preserving their nature and

culture since ages".

The second session of the forum was to engage on a cross vertical dialogue and explore how experts from different fields can contribute to the cause of Lepcha community and create awareness. Speakers of the session included - Dr. Sunayana Sarkar, Assistant Professo - Structural Geology and Geotectonic, NMIMS University, Mumbai, Ms. Minket Lepcha Film maker, Mr. Anindya Mukherjee Mountaineer and Adventurer and Mr. Tom Tshering Lepcha Officer of Department of Social Justice & Welfare. The session was moderated by Dr. Satyadeep S. Chhetri, Head of the Department, Department of Chemistry, NBDDC, Tadong. The session flagged important issues and the gaps that needs to be addressed in the Dzongu valley and the with Lepcha communities. The idea is to work together to find solutions to the challenges and implement a sustainable future for the mountain community. The session ended with Minket Lepcha stating "If roots had boundaries, would trees ever bear fruit". Throwing light upon the importance of keeping our mountains free from plastic

pollution, Ms. Neela Mazumdar from Earth Day Network-India launched the Great Global Cleanup in the mountains campaign to spread awareness on removing billions of pieces of trash from our neighbourhoods. The launch of the campaign was followed by screening of the acclaimed documentary film 'Voices of Teesta', directed by Ms. Minket Lepcha.

The idea behind organizing Regional Eastern Himalayan Naturenomics™ Forumisto understand conservation stories, give exposure to the community heroes and identify the most pressing needs and solutions for the challenges faced by the communities and use those outcomes as a launch pad to start discussing possible solutions. The regional forum is part of the Eastern Himalayan Naturenomics™ Forum, considered as Eastern Himalayas's largest Forum for building prosperous communities in Asia, organized every year in Guwahati since 2013.

The Eastern Himalayan Naturenomics™ Forum was launched in 2013 to find solutions leading to important lessons for the communities and others, at all levels, from

local to global. Starting the dialogue with Asian Elephant Conservation to exploring the crucial role of rural communities in the Eastern Himalayas and supporting rural economies and livelihoods, six years (2013-2018) of Eastern Himalayan Naturenomics™ Forum has led to participation from over 20+ countries, 2000+ distinguished speakers and participants from multi-disciplinary fields and recognized 80+ Balipara Foundation Social Recognition Awardees.

The forum was organized by Balipara Foundation, a Non-Profit organization nestled in Assam in the Eastern Himalayas. Established in 2007 Balipara Foundation focuses on community development and conservation of natural resources in the region through the concepts of Naturenomics™ and Rural Futures.

The Sikkim Chapter was organized in association with the Sociology Department of Sikkim University. Following success of the Sikkim Chapter, the regional chapter will travel to different parts of the Eastern Himalayas and organize community specific discussions.

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