

APPROACH TO THE DIAGNOSIS AND MANAGEMENT OF CRY IN HEALTH AND DISEASE IN CHILDREN

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ABSTRACT

Cry of the children is a physiological phenomenon which needs to differentiate from abnormal or pathological conditions. Examination of a child with cry indicates about the status of a child to think about intervention or serious nature of the disease. How cry is a very good indicator of a child's well being, it has been emphasized not only in modern Pediatrics but similar importance was laid in ancient Pediatricor kaumarabhritya Department to evaluate the vedana or diseases through examination only by different Acharyas to take

appropriate measure at right time. Present article is a mirror to cover all the aspects of cry in healthy and unhealthy children during infancy from ancient and modern parlance.

KEYWORDS: Diagnosis- cry, Physiological- Pathological, Kaumarabhritya, Vedana.

INTRODUCTION

Very often we do not know why our little kid is in tears and disturbed. Good thing about it is that the babies indication about his needs and mother responds which develop very good bonding. A crying baby needs soothing.

In infants and young children the cry is the only sign to express the needs and to draw attention for their discomfort, hunger and painful condition. Certain amount of crying is physiological and desirable and is believed to be akin to exercise period and letting off steam to give vent to their anger, frustration and to seek attention. Crying is a important feature for normal development. Healthy infant cry for 2-3 hrs at an average in a day during first 8 weeks of life. Crying normally peaks at about 6 wks of age when healthy infants cry up to 3hrs/day, which decreases to one hr. or less by 3 months. Periodic crying in infants is most

commonly due to hunger and as a signal to discomfort. Although cry indicates to certain disorders its role for general health of an infant can not be ignored. There are certain points which mention about its advantages in shaping a healthy child as mentioned below.

Establishment of respiration: All wants to hear the first cry to welcome the new born but the physician looks for the opening of the airway with the healthy working lungs characterised by a good cry. What is so important about the significance of babies first cry is it lets baby test out their lungs for the first time as if they instinctly know the lungs will expand.

Before the birth of the baby it depends upon mother for its respiration through placenta through umbilical cord. Soon after separation the babies try for survival through natural instinct by giving good scream. The lungs will fill up with air and their full capacity after the expulsion of amniotic residue in the lungs, mouth and nasal passage. The art of crying will aid in getting rid of any excess fluid that may still be in the lungs, nose or mouth. The first cry is synonymous with breathing.

Expansion of Lungs with initiation of breathing is basic importance of first cry. This is the sign one have been waiting to hear as a marker of babies arrival. Crying helps the baby to breath in and the lungs to open up to take in air. It is misbelief that every time the baby cries helps the lungs to grow stronger 'But it is the first cry works for that. When your baby breaks into his first cry it is well within and one can sign in relief.

Helps in Communicating

Crying is a feature indicates about the babies need. It may be because of various reasons and in various pitches. Crying of certain intensity 200-600 is normal and is for the attainment of babies need. Each pitch indicates the level of discomfort or attention needed. Over the period of time, each mother learns or understand the need like hunger or soiling of diaper, feeling hot or cold, needs comforting or is crying for attention. It serves to be a medium of communication, a kind of language for a baby.

Helps in Psychological well being

Taking care of baby ensure him or her that somebody is thereto look after with the feeling of secure. Although many ignores the cry for discipline, the newborn baby or infant need more attention helps the baby to feel more secure and safe. A child grows in this manner develops

into a better individual than the one who is not. By ignoring the child may pose him psychologically and physiologically disturbed although the child is unusually quiet.

Helps to stretch muscle

Taking a closer look at crying babyone will see the many muscles, limbs or the entire body that has been twisted and turnedcries. That is an exercise in itself. This shouldbe excluded from other reasons of cry.

Helps Shed excess emotional baggage

It helps shedding the excess emotional baggage. It is a reflection of emotional development. It is well observed in a toddler expressing his or her Tantrumor dissatisfaction before parents which subsides after little assurance and talked out. This works to break the tantrum and balance the emotions as well.

Infants normally cry about 1-3 hrs a day. it is perfectly normal for an infant to cry during hunger, tired, lonely or in pain or at evening. But if a baby cries too much, there might be a health problem that needs attention. A large number of disorders during infancy can be diagnosed on the basis of any predisposing conditions and localizing features poses a great diagnostic challenge to a pediatrician One can assess the etiology of cry on the basis of History from the parents or caretaker, physical examination and investigation.

Diagnosis based on History

Episode of crying should be carefullynotedfrom the parents to know perfect cause of cry in different situations, at night at the age of 6-8wks(Infantile colic), quantity of feeding(Hunger cry), exposure to cold, insect bite, bugs, pinworm, crying during feeding as in nose block, Neuromotor retardation (Cerebral irritability), associated with drooling (Teething), flexion of thigh over abdomen with passage of flatus (abdominal pain), head banging(Head ache), touching and rubbing of genitals (Genitourinary problems), inability to move a limb (osteomyelitis, scurvy, congenital syphilis, fracture), blinking, rubbing and watering of eyes(foreign body), crying at lifted or picked up suggestive of painful condition in musculo skeletal system, Constipation with passage of jelly like stools and inconsolable cry (intussusception), unexplained pain in abdomen may occur in sickle cel, disease and leukemia. Crying during defecation (constipation, Anal fissure). crying associated with fever suggests infective condition. There are certain clinical features relating to different system highlighted as mentioned under. History of inhalation and ingestion of a foreign body (coin,

beads, toys with loose or sharp components. History of medication like Antispasmodics, pseudoephedrine, sedatives, Nalidixic acid, tetracycline, corticosteroid, vitamin A etc, prolonged and excessive local application of topical anesthesia as in anal fissure and vaccination. History of Accident and trauma, change in environment, change in mode of feeding, tension among parents, visit by guest. History of some important symptoms given by parents in relation to different systems as stated below.

Central Nervous system—Head banging, vomiting, Photophobia.

Cardiorespiratory symptoms- cough, Breathing and feeding difficulty.

Gastrointestinal symptoms-Vomiting, constipation, diarrhoea and colic.

Genitourinary-Dysuria, frequency, urinary retention, abnormality in stream.

Physical Examination

One should examine the child from top to toes. External marks for injury, insect bites, swelling, fracture, dislocation, papules heal, anal fissure, perianal rashes as well as redness are indicator of the etiology comprehensively. Inspection of all the orifices including mouth, nose, ear, anal canal and vaginal orifice can give a clue to the problem. Eyes should be examined for foreign body, papilledema, retinal hemorrhage. otoscopy is mandatory to know acute otitis media. Anterior fontanel should be inspected to rule out meningitis. Vitals should be examined to know hyperthermia, hypothermia, tachypnea, dyspnea, tachycardia, shock or hypertension. Cardiovascular system should be examined to know Tachyarrhythmia, congenital heart failure, chest examination should be done for tachypnea, subcostal and intercostal recession to diagnose pneumonia, bronchial asthma, bronchiolitis and evidence of bronchial spasm where abdomen should be inspected to rule out intestinal obstruction, gaseous distention or colic and some acute emergency condition like intussusception.

Ayurvedic classics have left no stone unturned while describing about the significance of cry or Rodana in health and disease. Maharsi kashyap has the clinical acumen to judge the sara (strength) of the child by the examination of cry right from birth which indicates about its healthy and unhealthy state. Kashyapacharya has described certain psychosomatic characters to assess healthy state of a child. In this context he has emphasised crying or Rodana for the proper development of child, if it is within normal limit. In practice, we observe excessive cry in some neurodevelopmental disorder like mental retardation and cerebral palsy and other neuro behavioural diseases.

Acharyas have simplified the diagnosis of various diseases by observing the activities of children with and without cry. The diseases point to the ailment of different systems including infections (Graharoga), Siroroga (CNS) related disorder, Udaravyatha (abdominal problems including GIT and genitourinary system like non passage of flatus and constipation and Asmari or Calculas), hrudrog with respiratory distress, kandurog (Dermatitis), Trushna (dehydration), Shularog (Abdominal pain including headache and disorder to external orifices). An infant palpate the different organs affected repeatedly with distress indicating abnormal function of that part or system and cry during palpation draws attention for remedies of the ailments. Almost all the diseases described in modern pediatrics in relation to cry has been beautifully described by maharsi Kashyap the pioneer of Ayurvedic Pediatrics in Vedanadhyaya. Similarly Acharya Sushrut and Vaghbhatta have described about the diagnosis of childhood disorders in association with cry.

Diagnosis of cry based on investigations

Routinely, history, clinical features are helpful to find out the cause of cry. But sometimes in the absence of localised symptoms abdominal cause, urinary disorder, emotional cause and arrhythmia is considered. Failing to decrease the symptoms of the children, routine and specific investigations may be carried out to help in diagnosis. Urine examination both routine and microscopic is done to know Urinary Tract infection and acute porphyria among others. Cardiorespiratory disorders are diagnosed through radiological investigations For abdominal distention and renal diseases plain x ray of abdomen is conducted Skeletal x ray is performed to know scury, osteomyelitis and fracture. In bulging anterior fontanel, or retinal hemorrhage to exclude meningitis and intracranial bleeding CSF examination and CT scan is advocated.

Management

It depends upon the condition and anti-inflammatory, analgesic, antispasmodic can have some effects in functional cause of crying. Evening colic can be relieved by giving dicyclomine in the required dose before 30 minutes of evening cry. Use of mosquito net and antihelminthic relieves the cry from mosquito bites and worm infestation. Teething discomfort can be managed with paracetamol and Triclofos sodium. Fruit juices, honey, milk of magnesia and dietary advice are sufficient to control constipation. is managed becomes alright by handshake or supination –flexion maneuvers. Anal fissure can be managed with local anesthetics.

So, it is concluded that cry is an indicator of both healthy state of child and the clue for potential diseases and should be evaluated to know the depth of the illness for effective

management. On the other hand certain minor causes of crying in infant need to be prevented in order to minimise undue burden of therapeutic administration. Therefore, the knowledge of physiological and pathological cry is inevitable for a pediatric.

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