

Demystifying the Crying of Babies

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In fifteen acting as a gastropediatrician, I have attended many families with the complaint that their babies up to 3 months old cry a lot, squirm and nothing calms them. In up to 20% of visits, the reason for pediatric consultation between 2 weeks and 3 months of life is excessive crying. However, only in 5% of these cases there is a disease that justifies crying [1]. Good, right?! But what about the suffering this new family is going through? How can you help this baby cry less and keep parents calm? This is a major challenge for pediatricians to help families get through this crucial phase of the development of these wonderful beings, babies. I believe knowing what really happens to these angels is critical for the family to be calm enough to offer the baby a safe environment to grow. Today we talk a lot about metabolic programming, that is, everything that happens since pregnancy can reflect on the health of the baby when he is an adult. And the same goes for neurological, cognitive, and behavioral programming, millions of synapses (connections between neurons) are being formed, and programming for neurotransmitter production as well. Babies have personality traits that are genetic. They are born your way. Calmer or more agitated, or even irritated.

Babies who cry a lot require more attention, requiring more attention, their parents get tired, being more tired, this conveys insecurity for the baby who cries even more. A vicious cycle is established [1].

So, here's a big explanation, but no bigger than the complexity of this phase, about how to handle excessive crying or not.

Did you know that in the first minute of life babies need to take on the breathing and oxygenation of every single cell in their body? The moment the umbilical cord is cut, the placenta ceases to fulfill this role and it is all with him, the baby and his little body.

Full-term infants triple their birth weight in the first year of life. So, stop and think: What would it be like for you to grow and get fat to the point of tripling your current weight in a year? I often say that we have no memory of our early years not only because we do not have all the neurons and synapses necessary for this, but because if we remembered this phase we would remember unpleasant sensations.

In the early days, they need to detach from a warm, dark, tight and noisy environment. In this environment where almost everything is very constant and predictable, they do not have to breathe, eat or evacuate. They receive all their food through the placenta and something through the swallowed and urinated amniotic fluid. The quality of what they receive via maternal blood depends on their mother's health and the quality of what she eats and drinks. Suddenly, at birth, they are literally forced to breathe and suckle, otherwise they die. We can imagine how many foreign products enter your body via breathing and breastfeeding. Strange products that in medicine are called antigens. These antigens interact with the baby's immune system (defenses) and there must be a balance in avoiding the baby's overreacting against these antigens. Normally, the defense system stimulates mucus production by the respiratory and digestive tract cells. We are big producers of mucus (phlegm) and the mucus is our ally, although it sometimes clogs our noses, causes coughs and scares mothers. As a result, small babies always seem to have their noses locked and make noise to breathe. The baby's defense system must behave in a balanced way, neither too much nor too little, maintaining a balance between defense and self-harm.

So far we have only talked about breathing and eating and you are already tired, wanting to cry, right? Well, you have to listen to a zillion of strange sounds, get used to the light/dark rhythm, feel different smells, touches, textures and vocalize. Get used to relationships humans using a powerful weapon: crying! So that parents do not forget to feed, warm or cool, clean and lap, yes, we are born with a huge need to be cared for. And parents know that. And because they want not to leave their young in a bad way, they resort to anything that promises to stop crying, from wild diets to amber-colored plastic beaded necklaces. Yes, plastic beads, not that amber stone necklace, currently exchanged for anklets and bracelets so as not to hang the poor babies. So, besides knowing how the baby “works,” what can be done to soothe babies who cry too much and reduce the suffering of their families at this sometimes frightening and seemingly endless time.

Without pretending to close the matter, here is some factors that are related to excessive crying and can be modified: Rides, clothes and adornments: It must be very difficult to get out of the womb and, in 15 days, be parading in the supermarket with a beautiful synthetic wool knit clothing touching your skin that a few weeks ago was like gelatin. Worse yet, with a pretty nylon stocking strap and a huge flower clutching at its fontanel and cranial sutures. Did you know that the skull of babies is like a puzzle into which the pieces fit together? But they still do not fully touch and are far from being glued. Between the sets of puzzle pieces are two holes covered by a thin membrane, just below it is the brain. They are the fontanelles or “millers”. Then we can relieve babies from unpleasant and dangerous rides and dress them in comfortable clothes leaving excess adornment for later.

Microbiota: Babies who are born vaginally and who receive breast milk have a healthier microbiota (microorganisms that live with us), usually suffering less from the infamous and nebula “colic”. Of course, vaginal birth is the first choice for moms who have the clinical and psychological conditions to do so without putting either their mother or their baby at risk. Other very powerful allies for establishing a healthy microbiota are mother’s nutrition, including during pregnancy and breastfeeding. Breast milk is critical in the early days of life to provide antibody-rich colostrum and to colonize the baby’s gut with “good” bacteria by keeping the baby’s microbiota in balance. The gut of babies, like ours, is a gas factory. The gas is the result of fermentation of milk that arrives in the intestine. Who helps with fermentation? The microbiota bacteria. Some produce more gas than others. Oh, and what is fermentation? It’s the same process that beer undergoes while it is brewing, so beer has gas. Because the microbiota is involved in the genesis of gases and regulating inflammation processes throughout our bodies, we sometimes use probiotics (good droplet bacteria) to reduce colic. Some studies suggest that the use of certain strains of probiotics could help to improve the microbiota profile and reduce colic crying [2-4].

Medications that reduce the surface tension of gas bubbles: because gases could cause cramps, some doctors, grandparents, aunts, bedmates and the like prescribe simethicone. However, there is no evidence in the literature that it decreases crying from colic. Maybe calm the baby by the taste of medication and the family by the placebo effect (even better with drops of water). Most doctors believe that as there is no adverse effect can be used. My opinion: not worth it.

Respect the adaptation period of the digestive tract: the thickness of the muscular wall of the belly and chest (chest and back) of babies is very thin. That’s why we hear your stomach and gut working. We feel at the touch of our hands the secretion in their airways and this is not a disease. But for the baby the sensation of liquids coming down from the esophagus, through the stomach and into the intestines to be eliminated in the form of feces and gases can cause strangeness, he did not do this until very recently. Maybe even interpret it as pain. We can practically touch your gut since the six pack muscles of your abdomen are very thin. So, feeling and hearing the flow of milk and gas in the baby’s body can be quite normal and is not a reason for panic, because panic increases adrenaline, adrenaline increases colic and so on. In times of unraveling the gut axis of the brain we must understand and respect the immaturity of the baby’s body as a whole, after all it is all connected.

Diets: The gas closest friend is lactose, poor thing, so badly spoken. But there is no evidence that reducing lactose in the diet reduces babies’ crying. We should never think of introducing infant formulas or torturing mothers on wild diets to reduce the baby’s crying. This, of course, in babies without evidence of a disease such as cow’s milk allergy and who are growing well [1].

Management of gastro esophageal reflux: The villain of the villains, the “hidden reflux.” I thought a lot about how to put in a text what this entity is. I had a lot of difficulty. So I put in topics:

- Definition of reflux in the dictionary: Displacement of liquid or substance in organic canal - example gastric reflux.
- Esophagus: Channel through which milk comes down to the stomach (reservoir).
- Esophagus 2: Channel through which milk rises from the stomach.
- Lower esophageal valve or sphincter: Structure that prevents the reflux of the contents of the stomach to the esophagus. In babies it is not closed so... They have a lot of reflux and this is expected. Imagine a canister juice with a straw. In an upright position, no juice comes out of the straw. If you squeeze the box, juice comes out of the straw, if you pour the box, juice comes out of the straw too. This is exactly what happens when the baby’s stomach contracts or when he lies down or shakes, the juice from the canister (stomach) runs down the straw (esophagus).
- Definition of hidden: That which cannot be seen. That is only known for its effects.

So, folks every backflow from the stomach to the esophagus is hidden unless the creature vomits. Vomiting or regurgitation is the reflux that came out of the mouth and even the nose, because we have a communication between the back of the oral cavity and the nose. Inside the stomach is a fluid called gastric juice. Therefore, sometimes it seems that the baby vomits more than he has suckled. The stomach needs to empty into the intestine so that the amount of reflux fluid is as small as possible. This takes a while and is called gastric emptying. It will be faster and calmer the calmer the baby is. Therefore, I do indicate the raised headboard, but the “burp position” with back slaps causes me astonishment. I challenge you to show me a well-designed study saying this is good for babies. Digestion has to be done in quietness. So, we don’t swim after eating, or did your mom let you swim after lunch? One of the components of gastric juice is a fantastic substance called hydrochloric acid. It aids digestion and signals that various other digestive substances are produced.

Not to mention that it is an excellent barrier to protect babies from viruses, bacteria, fungi, roundworms, gardias etc. which enter the mouth and nose. So, he participates in such a balance of defenses and health of the microbiota. So, think about whether your baby’s cry is such a severe gastroesophageal reflux or if “heartburn” is so disruptive to your life that it is worth blocking this acid with omeprazole or ranitidine.

Routine: Babies have personality traits that are genetic. They are born your way. Calmer or more agitated, or even irritated.

Establishing routine care (diapering, hygiene, sleep) and feeding is critical. This measure is one of the most proven to ease the baby’s crying and family fatigue. Never try to make the baby too tired to sleep, he will cry harder and sleep less. Establishing a routine helps the baby develop the ability to regulate itself. For those who continue crying and angry despite the establishment of routines, the Swaddling technique can reduce crying faster [1]. Wrap the baby tightly with the arms along the body and cradle, yes, cradle making SSHHHH, the same movement and noise that he felt and heard in the womb [6].

Family Support: nursing teams that make home visits are very helpful. Psychotherapy support groups, meditation and relaxation techniques for parents and family members are also encouraged [1].

Now some more controversial measures

Vegetable extracts: In some markets, an extract of chamomile, mint, fennel and licorice is available. Studies with questionable methodology show improvement in colic scores in infants who used these products. As they have no adverse effects, they could be used for colic.

It is 100% contraindicated to use such “herbal medicines” and products produced and marketed without federal regulation. The use of teas should also be discouraged [1,5].

Massages: Some experts recommend colic or calming massages. But there are no well-designed studies showing that they reduce excessive crying, on the other hand, do no harm [1].

Chiropractic is contraindicated, as is lying on your stomach [1].

It would be good for parents to know all this before the babies were born. Most babies who cry excessively during the first 4 months of life will not have psychosocial and developmental problems. Every baby who continues to cry long after 4 months should be referred for evaluation as this could mean a disturbance in parent-baby interaction and regulation and is a risk factor for developing future psychosocial or somatic problems. There is an increase in eating, sleeping and behavior disorders in babies who cry excessively after 4 months [1].

Some risk factors for excessive crying and related problems [1]:

- Pregnant woman with anxiety or little support
- Parents very stressed or poorly supported
- Parents with anxiety disorder or other psychological problem such as depression.
- Teenage Parents
- Parents with some kind of addiction
- Financial problems like unemployment
- Small for gestational age or premature babies.

Regular pediatric follow-up where parents should have the opportunity to talk to the pediatrician during prenatal consultation and in the first weeks of life is a very effective measure to overcome the stress triggered by excessive crying. The more enlightened and supportive parents are, the more they can enjoy this special moment by offering their baby the best environment to grow up healthy, happy and safe, remembering that it only takes time to develop and mature, so, give a brake.

Bibliography

1. Akhnikh S., *et al.* “The excessively Crying Infant: Etiology and Treatment”. *Pediatric Annals* S43.4 (2014): e69-e75.
2. Daelemans S., *et al.* “Recent Advances in understanding and managing infantile colic”. *F1000 Research* 7 (2018): 1426.
3. Esther Castanys-Muñoz., *et al.* “Building a Beneficial Microbiome from Birth. American Society for Nutrition”. *Advances in Nutrition* 7.2 (2016): 323-330.
4. Frida Karlsson Videhult and Christina E West. “Nutrition, gut microbiota and child health outcomes”. *Clinical Nutrition* 19.3 (2016): 208-213.
5. Anheyer D., *et al.* “Herbal Medicines For Gastrointestinal Disorders in Children and Adolescents: a Systematic Review”. *Pediatrics* 139.6 (2017): e20170062.
6. Nelson AM. “Risks and Benefits of swaddling Healthy Infants: An Integrative Review”. *MCN: The American Journal of Maternal/Child Nursing* 42.4 (2017): 216-225.

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