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Living with Colicky Infant and New Modalities: a Case Report

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Abstract

Parents who have a baby with infantile colic experienced a different thought and emotions such as hopelessness, fatigue and impasses. In this study, our living experience as a professional nursing parents' are represented with new relieving modality for infantile colic. Herein, we report a new relieving dietary protocol for a colicky infant with non- Immunoglobulin E – mediated protein induced cow's milk protein allergy.

In this dietary protocol, we used a new and forgotten traditional dietary regime with specific restriction protocol on some allergic food concomitant with improving bowel microbiota and dysmotility with pro biotic drops and vitamin D3. Use of the mentioned dietary protocol decreases typical cow's milk protein allergic symptoms in this case's.

Key Words: Case Report, Infantile colic, New dietary protocol.

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1- INTRODUCTION

Infantile colic is a prevalent gastrointestinal problem in the world (1). Parents-baby psychological and emotional relationship is severely disturbed with infant colicky pain. There are a few studies about parents' of living with a baby with allergic colitis and severe colicky attacks. These studies provide better insights of colic initiation mechanisms for pediatric specialist and allied health care personnel.

Nowadays, the Wessel criterion is used for a healthy baby who is inconsolable crying more than three hours per day, more than three day per week (2). Cow's milk protein allergy is the most common infantile allergic problem and can affect a family's quality of life (3). A number of infantile gastrointestinal disorders have been attributed to immunological reactions of mother's dietary intake of cow's milk protein including: lactose intolerance and carbohydrate malabsorption. These problems increase the levels of hydrogen gas and osmotic pressures in infants' gut (4) and causes a severe colicky pain that is associated with paroxysm of inconsolable crying, flushing of the face, and excessive flatulence in infants' gastro intestinal tract(5). Incidence rates of colic pain varied between 3 and 40% depending on of diagnosis (4). The etiopathogenesis of infantile colic remains undefined and is most likely multifactorial (4). This benign and self-limiting condition is very stressful for parents and especial for colicky infants' mothers (5, 6).

2- MATERIALS AND METHODS

This study was conducted and designed to capture the living experiences of a professional nursing parents' with their colicky infant's by using a hermeneutic phenomenological method as described by Van Manen[27] and using it in clinical field for creating a new modality for specific type of infantile colic.

2-1. Ethical consideration

The study was carried out in accordance with Declaration of Helsinki(1) and dietary protocol assigned according safety and national health principals for mother and her infant.

3- CASE PRESENTATION AND NEW DIETARY MODALITY

We present our experience of alleviating this type of non-Immunoglobulin E – mediated cow's milk protein allergy (CMPA) in a female infant with profound White blood cells (WBCs), mucous and blood in her stool. Background variables of this infantile colic case are represented in Table 1. In this case's, we used a severe restrictive diet on dairy, soya, fish, and sea-related products, salicylate-containing and gas-producing foods for mother (7). We used herbal relieving drops such as Colic EZ after any colicky pain. Additionally, a pro biotic (Biogia) drops (8-11) have been administered on standard *Food* and Drug Administration (*FDA*) recommended daily doses' for second three months of her infant's life. After this period, we initiated standard dosage of vitamin D3 (12-14) and ferrous sulfate supplements with mixture of soft- baked rice flour (15, 16) and a teaspoon of sheep tail oil (17) in bid daily schedule concomitant with our restrictive dietary regime (**Table.2**).

With initiation of this diet, colicky pain disappeared. We also, used Dr Carp's techniques (18-20), including swaddling, shushing, swinging, stomach relaxing position and pacifier sucking for unknown allergen-induced colic attacks. According the retrospective data, in this infantile colic case's, fetal movements increase with dairy consumption in prenatal period and leather like skin with prominent rashes existed in her face and lower extremities' in post-natal period.

Table-1: Background variable of represented non-IgE infantile colic case

Case presentation	Characteristics
Gender	Female infant
birth weight (grams)	2925
parity	38 weeks
Type of delivery	cesarean-section
First infant in the family	Male infant without any colic syndrome
Colic initiation age	In 6 weeks with 4 h colicky pain, three times a week with blood , mucus and profound leukocytes in loose green stool
Mother smoking history	nonsmoking
Feeding method	breastfeeding
Colic duration and intensity assessed	On daily and nocturnal basis
Colic initiation time assessed	30 minutes and 4 h after oral intake of any allergic diet by breastfeeding mother
Circadian time of colic attacks	3:30 pm, 6 pm,10:30 pm and 1am
most Prevalent of circadian times of colic attacks in 6 weeks of infant life	3:30 pm and 1am
Colic pain characteristics	Abrupt inconsolable crying with distinct crying sound ,infant light and sound hypersensitivity ,flushing temporal skin side of orbital cavity, severe intestinal contraction in piston like manner, clenched fists, specific behaviors such as drawing up legs against abdomen, flatulence, GRED(reflux) symptoms, projectile vomiting , failure to thrive and low weight gaining
Duration of colic attacks in 6 weeks infant age	120-189 minutes

Table-2: Amalgamation of new and traditional medicine in colic relieving dietary protocol

Dietary protocol	Supervised with	characteristics	Initiation time
A severe restrictive and hypo allergic diet in a breastfeeding mother with 1000 mg supplementary calcium-D3 on daily basis	Supervised with a pediatric specialist	a restrictive diet on dairy, soya, fish, and sea-related products, salicylate-containing and gas-producing foods for mother	Six weeks after birth
Improving bowel micro biome and dysmoility with pro biotic and vitamin D3 for infants' gut maturation	Supervised with a pediatric specialist	In this case, five drops containing Lactobacillus reuteri (BioGia) with 400 unit vitamin D3 assigned on daily basis	Second three months of infant life
Islamic and traditional diet for Gut development, initiated one month Later in similar infants age group		Daily supplementation of 1 mg/kg of iron according national supplementation project is used with mixture of soft- baked rice flour and a teaspoon of sheep tail oil in bid daily schedule	After 7 months of infant life
Herbal medicine		Use of colic EZ with 0/005 ml Dill oil, 0/0007 ml Fennel oil and 40 mg Simiticone in each 1 ml of drop. For under twelve weeks infants, 0/5 ml and 1 ml for above this age group	With initiation of unknown colic attacks

4- RESULTS

Intake of soft rice flour with sheep tail oil diet and a proper cow dairy restriction in breastfeeding mother of our case's prominently relieved allergic colitis symptoms. Soft baked rice flour expands internal structure of infants' gut (15). In this regard, rice hydrolyzed formula is another relieving option for (CMPA) and Milk soy protein intolerance (MSPI) problems (22, 23). In this case's and after twelve months, we discontinued our suggested baked rice flour & sheep tail oil and continue baked rice flour for three times a week, but prominent colic symptoms' were not appeared again. In this infant, some sleep restless, intestinal contraction, reddening of anal skin, flushing of infant temporal face side and mild crying reappear after reintroduced yoghurt and ice-cream and soya based biscuits, Melon (Cucumis melo L.) and apricot into the baby's diet.

4- DISCUSSION

We need to know, cow's milk protein allergy and soya protein intolerance problem is not rapidly resolved and concomitant food allergies and minor esophageal refluxes may occur with these problems in early infancy. We know, cow's milk allergy may be relieved in 36 month after birth in severe cases (24). When unknown food allergen ingested by breast feeding mother, colicky pain appear in 30 min to 4 hours later in her infant with abrupt typical crying, flushing of superficial skin of temporal side, intestinal contraction, reddening of anal skin and feet skin eczema (24). After colic initiation; accordingly, mother was prohibited from eating these allergic or gas producing foods. Colic symptoms have not appeared until reintroducing cow dairy products and soya containing foods in fourteen month. The evidence shows about 25% of moderate to severe cases of infantile colic symptoms that improves after some days of a hypo-allergenic diet (25, 26). Our new modality insists on new restriction dietary regime with and specific Islamic and traditional dietary treatment of immature infants' gut (15). We amalgamate pro biotic and vitamin D developing effects on infant's gut with Al Sadegh medicine (16) for better gastrointestinal maturation. Rice is used as a treating diet in Islamic medicine and specifically in Al Sadegh medicine (16). Baking process of rice flour degrade ingredient rice proteins and producing a hypo-allergenic food for these infants. In our living experience with this type of colic syndrome, initiation of colic attack is mostly related to allergen that transmitted through the mother milk by dietary processes or infant unknown allergenic food eating. We mentioned, with appearance of any signs of allergic response in infant, reintroducing of any allergic food must be delayed.

4-1. Limitations of the study

Lack of ability to generalize with single case report and danger of over-interpretation with this type of study may distract reader from an insightful perception.

5. CONCLUSION

In this research, we live with our infant experiences of colicky pain. Parents of colicky infants were concerned about health of each other and their babies. They share the burden of colic pain syndrome on their family and tried various strategies to make their infant cry less. Some of these tricks like this clinical protocol may be helpful for them. For relieving from an eclipse of healthy life with knowledge based approach.

6- CONFLICT OF INTEREST: None.

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