Keeping it in the family.... the role of micro RNA (miRNA) and the therapeutic use of sarcodes and nosodes

Patricia Hatherly

"Every Mother contains her daughter in herself and every daughter her mother and every mother extends backwards into her mother and forwards into her daughter."

This insightful perspective shared by Carl Gustav Jung (1875-1961) acknowledges the fact that a gestating mother of a baby girl, as well as personally carrying forward DNA from her mother, carries in her womb the human potential of the next generation as well as the one after along the female line, due to the matrilineal DNA stored in the mitochondria of the ova.

Now, thanks to the emerging and exciting science of Epigenetics, we know that bodily fluids contain tiny organelles named microRNA [miRNA] and research has indicated that the role of miRNAs is to help modulate the immune system through a process of gene regulation specifically associated with post-transcriptional regulation of gene expression. For example, the miRNAs isolated from infant stool has determined that breastmilk induces genetic pathways that are quite different from those of formula-fed infants. Interestingly, the gene most often expressed, is associated with the cellular response to oxygen deprivation most associated with NEC (necrotising enterocolitis) historically the bane of NICU staff (Neonatal Intensive Care Unit), but not seen so much now due to the current best practice which ensures that all compromised newborns get colostrum from their mothers by expressing the mother immediately after birth and in the subsequent hours and days, until the baby is strong enough to go to the breast.

While a study conducted in 2010 2 was the first to confirm high levels of microRNAs in breastmilk in the first six months of lactation (approximately 1.3×107 copies/litre/day of miR-181a), and that these miRNA molecules are stable even in very acidic conditions, other studies $^{3;4}$ have established that, during this time of neural plasticity, its specifically the oxytocin-driven epigenetic factors in breastmilk which moderate primary gene expression and produce permanent changes in the physiology and anatomy of the brain and that these changes may be transmitted to the future generations.

So, human milk is one additional way that humans can transfer genetic material other than through sexual reproduction, And, as research has shown⁵ epigenetic tags are passed down through generations, (in particular, animal research shows that some epigenetic tags stay in place up to 10 generations out, and researchers have been able to study epigenetic tags in humans up to 60 years out), it gives us much food for thought!

Its research like this that currently informs my use of sarcodes and nosodes and I think we need to have a conversation about the wisdom of using such remedies in potencies below 12C unless familial material is sourced for their manufacture. With that in mind, the following case study of a very prematurely born twin who came under my care when she was three months old and still receiving some breastmilk from her mother, (personal names not used to ensure privacy) suggests a novel approach.

[P] Tell me about the pregnancy...

[M] "Missy" and her twin (our second pregnancy) were consciously conceived using the Fertility Awareness Method [FAM] on November 10th, 2011, only three and a half months after surgery to remove my silicone breast implants.

Over the next week I had one of the worst colds I'd ever experienced; and, on November 22nd I had a single dark red implantation bleed. Later that week, I determined I was pregnant and confirmed it with a home pregnancy test.

Morning sickness was nearly instantaneous and severe although I only vomited when taking fermented cod liver oil... which I forced myself to take daily and chased it with another food. The only things that settled the morning sickness were drinking fresh raw milk and taking Epsom salts baths. As is my tendency, I overdid both of those things. I drank close to two litres of milk each day and I soaked in half a bag of Epsom salts for 30 minutes or more each night! Prior to conception and during pregnancy I followed a strictly gluten and sugar free Weston A. Price diet. https://www.westonaprice.org/health-topics/abcs-of-nutrition/dietary-guidelines/ I consumed very low amounts of carbohydrate, (other than milk), as I excluded all grains and fruit but had excessive amounts of protein and fat, so I was probably somewhat deficient in vegetables. I did make a fruit exception for strawberries as I had strong cravings for them. I drank nettle and red raspberry leaf tea daily. I did not take any prenatal vitamins thinking that my diet, high in organ meats, bone broth and whatnot, covered my needs.

In my quiet times in those very first couple of weeks I had a suspicion that I was carrying twins and was concerned I was not healthy enough to do so since I had just had breast implants removed. I meditated on my body absorbing any "extra" embryos for several days before being suddenly struck with an immense feeling of peace that I had a pregnancy that I could healthfully carry to term. I was then sure it was a singleton pregnancy, so proceeded with planning for a birth centre birth with a midwife; and at 11 weeks, I had an appointment with my gynaecologist for an ultrasound. I was both shocked and validated to see two babies!!

My mother's response to the news was "Oh, surely you don't want two babies! What on earth are you going to do?"

But we were excited! Though the stress ramped up a notch and was not helped by my mother constantly in my ear about us needing to move as our current house would simply not be big enough for us with three kids!

So, house-hunting was the order of the day and I must say that in those early weeks when I felt so terrible, keeping myself occupied helped to distract me from feeling ill.

Keeping my energy up was a struggle so I allowed myself a nap each day but beyond that, I was busy... busy and weeks 12-26 rolled by and were great. During that time, I charged ahead with finding and buying a new house and selling our house.

[P]: Any symptoms during that second semester apart from the nausea and tiredness?...

[M]: Actually, the second trimester brought relief from the nausea. However, I developed horrible gushing nosebleeds that I assumed were just pregnancy related (but, now that I reflect on it, were probably an early warning that the cowsmilk wasn't agreeing with me.... sigh) and I had the worst "seasonal" allergies of my life. Every time I sneezed, I felt as though I'd have the babies right then and there, the pressure was intense.

[**P:** Yes, when she came under my care *Sepia* was prescribed!]

[P]: So, what happened after week 26?

[M]: We'd just had a "holiday" of sorts with my parents and our four-year old in tow which exhausted me such that afternoon sleeps were mandatory in order to get through each jam-packed day!

At that time, I was still planning a birthing centre birth with two very experienced midwives just five minutes from our hospital but I thought it was prudent to continue care with my gynaecologist and also the Maternal Foetal Medicine specialist, so booked an appointment for a check-up. The extensive ultrasound showed cervical funnelling and the specialist stated: "I don't like 26-week babies". I stated that I did not either and I started crying.

I then became extremely anxious over everything, and at each subsequent appointment, things seemed to get worse. I could not hold it together and broke into uncontrollable tears often. I started working with a hypnotherapist and her hypnotherapy sessions were the only things that helped me to calm down whenever the specialists and/or my father (who is a gynaecologist) said things that spun me out. From that time on until their birth, the twins were simply bathed in stress hormones!

Unfortunately, the twins were born at 32 weeks gestation weeks via C-section due to severe pre-eclampsia HELLP syndrome [https://www.preeclampsia.org/health-information/hellp-syndrome] I was hospitalised two weeks prior to the birth and I shut down after the C-section and didn't see the girls for three days. During that time, they were given donated breastmilk and Arnica 200C. When we were reunited, I began to pump and was able to collect some colostrum for them. Missy received slightly more than her sister as she was the smaller of the two and I thought she needed more help. (At birth Missy weighed 1417g and her twin weighed 1559g).

They initially fortified my milk with "human milk fortifier" which is a cowsmilk based formula until I asked them not to, as episodes of explosive, paint the walls, bowel movements made me realise that it didn't agree with them.

They were in the NICU for six weeks; and, during the last week of their hospitalisation, I agreed to their fortifying my milk after both girls had a stall in head growth.

Then, just prior to discharge, while nursing Missy, she choked, and seemed to hold her breath and just went limp in my arms. I saw it even before the machines started to beep. She didn't respond to any of my stimulation and I had to call for help.

The nurses jumped in and had to "bag" her. It was terrifying for both of us.

[P]: Tell me what happened when you got the babies home...

[M]: Upon discharge I no longer "fortified" my milk, but I had to start supplementing with homemade formula as I struggled to provide enough breastmilk for them. No doubt, that was due to unresolved issues hanging over from the breast implants as well as missing those first few days of lactation where the breasts need much stimulation in order to activate the prolactin receptors. I first tried the raw cow's milk formula suggested by Weston Price but both babies got wheezy with it

I then tried the goat milk recipe and they still reacted to it.

Finally, I made the broth and chicken liver formula and they thrived on it and my breast milk, what little I could pump, or that they got from me.

[P]: When Missy came under my care, my focus was on the drama of the pregnancy and the untimely birth and a less than fulsome lactation, so the aetiology of A/F "strain" and a "poor diet" were primary considerations. So, I supported Missy over the next six months with firstly *Borax* 30C followed by *Sanicula* 30C and *Morgan Pure* 30C until her constitutional picture *Calc Phos* finally emerged.

Lamb bones were used for teething; "baby food" was not proffered. Instead the mother provided a rich experience of food offerings and encouraged baby-led weaning. She's always been a great eater; enjoying what I'd call a balanced diet, and that has continued.

Missy self-weaned from breastfeeding at just about a year; and both babies continued getting liver and broth-based bottles until they were three years old. Interestingly, Missy never warmed to dairy. She tried it several times over the years but always ended up saying that she didn't like it. So, it became a "sometimes food" only. She much preferred the broth substitute.

When she was four years old the family moved from the city to the country and began a more sustainable lifestyle with a variety of animals raised on the property to provide eggs and meat. It was after that time that Missy consistently presented with GIT disturbance which included episodes of acute pain and bouts of intestinal worms.

So, in order to help settle that, her mother removed gluten and dairy from the diet and *Mag phos* for acute pain along with *Stannum*; *Cina*; *Teucrium* and *Gaertner Bach* helped with symptoms but did not eliminate them.

In August 2018 another little girl joined the family. It was a perfect full-term pregnancy, home birth and fulsome lactation which was very healing for the mother. With all that new baby energy around, it helped to shift my focus in order to move through what had become a virtual Ground Hog day scenario!

So, in order to try and balance out Missy's less than perfect start to Life and kick start a more helpful microbiome, I prescribed *Lac Maternum* 200C (three times daily for three days which is my go-to dosage since colostrum is only fully available for three days). Following that some bags of expressed milk from the first week post-partum, which were in the family freezer, were thawed and given to Missy to drink. It was explained to her that it was to help make her tummy better and so she was totally prepared to go along with it. I then got the mother to manufacture *Lac Humanum* 7C from her own breastmilk https://www.patriciahatherly.com/images/newsletter/recipe.pdf so that we could get Missy's gut sorted.

This is what happened next...

[M]: I made a homœopathic remedy from my breastmilk when "Bubby" was about five months of age; towards the end of January 2019. My Lac-h 7C combined with the frozen colostrum seemed to bring Missy back from the manic brink she was on. She was having terrible meltdowns and screaming fits declaring that she didn't want to be alive. Her stomach pains kept returning and she'd started having issues with kidney pain and leg pains and severe anxiety. After the remedies, her anxiety really settled. Slowly, but steadily, the pains resolved until mid-year, when multiple dietary and emotional upsets re-occurred.

[P]: Since its always about the microbiome, especially when it comes to prescribing *Lac* remedies, I've always found prescribing bowel nosodes useful intercurrents which cement the healing action of the milks. So, with that in mind, (as well as the growing popularity in using faecal transplants to solve a range of health issues) and a new baby in the house (not yet on solids) I instructed the mother to make a familial bowel nosode from the baby's stool.

Seven glasses of cooled boiled water were prepared and a scrape from the next dirty nappy was placed into the first glass and gently stirred. A teaspoonful of water from that glass was transferred to the next glass, stirred and the procedure was repeated for all the glasses. The contents of the final glass were bottled along with a quantity of alcohol to preserve it as a stock bottle.

The story continues...

[M]: I made the bowel nosode from Bubby's fresh morning nappy as per Patricia's instructions in early August 2019. Improvements were essentially miraculous. Within the first couple of doses Missy mellowed significantly and her stomach pains disappeared.

She received the homemade nosode for two weeks for that initial round and I continue to administer the remedy whenever there is any indication of yeast such as bright red chapped lips, or when there is a marked return of emotional symptoms or she complains of repeated stomach pains. One dose brings relief within the day.

Missy used to be the first in the family to catch any illness. Any cold always presented with an intensely sore throat and sleepless nights and wracking coughs that went on for weeks after. Since the nosode, she's only been sick twice. When she did catch a cold, she was the last one in the family to catch what had been a very bad cold for everyone else. For her, it was very mild and started with some sneezing. She beat it in a day or two. Another time, when a stomach bug went through the house, she was down for less than a day when her other sisters were down for several days!

Since infancy, Missy has always been struck the hardest with whatever bug the family encounters and now she seems to be the most resilient! In August when originally giving the remedy, I gave her twin sister some as well, and was amazed to see it have an opposite reaction; she became much more antagonistic! However, when our eldest daughter had very obvious signs of yeast overgrowth (primarily red, chapped, lips) I administered a dose of the homemade nosode, and she responded beautifully with all symptoms resolving with a single dose.

PS: A curious note, which may just be my imagination running wild but, in light of these gifts from Bubby, I felt it worth a mention.

I was convinced, early on in my second pregnancy, that I had a multiple pregnancy, and was not strong enough to sustain twins. As I mentioned earlier, I meditated for days that I would absorb any extra embryos so that I could have a healthy pregnancy. During one mediation, I was overcome with relief and I sincerely felt that I no longer had more than one baby. So, finding out I had twins was a genuine shock in spite of my early premonition.

When Missy got her first suntan, it became apparent she had two distinct skin tones. She has a lighter stripe down her midline on her torso and then a whorl of lighter skin on her right cheek. I dug into researching her marks and, early on, my suspicion was that it was more likely chimerism than mosaicism based on my experience with the meditating I had done.

At the time I even found evidence that the location of her marks was consistent with the genetic change occurring at the same time developmentally as Missy was when I meditated on absorbing any extra embryo. Having used FAM to conceive there is no doubt about their gestational age at any given time.

Fast forward to 2018 and five months before Bubby was conceived, I started receiving visitations from someone during my fertile days. There was a sense of urgency with these encounters; the communication being to "hurry up already" - at the time I had even wondered if this was a spirit who'd thought about incarnating with the twins (triplets - yikes!). When we conceived Bubby, the visitations stopped. Probably that second pregnancy was to include a singleton and identical twins. Missy and Bubby are great mates and very bonded as siblings in spite of the age difference, so maybe Bubby's first gift to Missy was to give her Life while biding her time to come later.

So many themes repeated with this latest pregnancy, only I was afforded the opportunity to handle them differently this time. Even in the lactation, themes have repeated. Bubby is the same constitutional as Missy and those two, since the beginning, have had a very special bond. I can't help but wonder if Bubby has been with us, in some capacity, for quite a while.

I'm in awe of the gifts that Bubby has brought this family. The last, nearly two years, feel like they've been a profound time of healing and growth for everyone... thank you so much for your intensive support through it all!

References:

- Goode N; Human Milk causes different gene expression in the gut. *Biotechnique Newsletter*; May 2010
- 2 Kosaka N et al; microRNA as a new immune-regulatory agent in breast milk. Silence. 2010 Mar 1;1(1):7
- Champagne, P et al; Epigenetic mechanisms mediating the long-term effects of maternal care on development *Neuroscience & Biobehavioral Reviews*, 2009 Elsevier
- 4 Shafai T; The impact of feeding methods on the prevalence of Autism GOLD May 2012
- Vaiserman A M et al. Non-genomic transmission of longevity between generations: potential mechanisms and evidence across species *Epigenetics Chromatin*. 2017; 10: 38. Published online 2017 Jul 27