

Reflux in Babies – the MM approach.

A Catamnestic Study of 200 Cases.

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For more than 25 years we have treated between 1.000 and 2.000 babies per year in addition to all the adolescents and adults we see. This includes babies in distress, babies unhappy- and their mothers, too. Over the years the referral diagnoses have changed. In the beginning of the 1990' babies came mostly because of obviously 'orthopaedic' diagnoses, mostly torticollis neonatorum, as it was called then or a haematoma of the sternocleidomastoideus muscle. Case by case we learned that we could not only alleviate the fixed posture (side-bent or in almost permanent fixed retroflexion), but other symptoms as well. So the in next phase the majority of our little patients consisted mostly of cry- babies. After the turn of the century a shift towards 'colic' and feeding problems ensued, and for the last 5-7 years 'reflux' as an initial diagnosis took over.

Compared with the early days the shift in the nature of the ailments of those toddlers is obvious, and we can only speculate about the reasons. One main cause seems to be the increasing sensibility for the frailty of the cervical spine especially at that age. It is by now common knowledge for midwives and obstetricians to treat the neck of the human being on it's way into the world with more prudence than in the old days.

Since we introduced a model of functional pathology as an important source of newborns' problems ('KISS' = *Kinematic Imbalances due to Suboccipital Strain*¹⁻³) this aspect was taken more and more into due consideration in the delivery room. One might

thus be tempted to think there are fundamental changes in the way direct force being exerted on these delicate structures - but at least in the babies we see this seems to be not the case.

As one step to learn more about the multilayer chain of events which leads to the problems we can treat (hopefully with success) and attend to we set up a catamnestic study of the 'reflux' cases we treated during 2014. Of the 1.750 patients younger than 18 months at the first admission we chose those with a main complaint of 'reflux' (914) and, from these made a random list of 250 cases. After analyzing those cases, (contacting the families by phone and/or e/mail and documenting their answers) 209 case histories were complete enough for analysis. These babies and their development are the base of the following assessment.

'Reflux'

Before discussing the efficiency of a treatment for a given disease it is not far-fetched to ask some questions about the value of the diagnosis. "Gastro- Esophageal Reflux (GER) the passage of the gastric contents into the esophagus, occurs commonly in newborn infants..."⁴ In another review article: "GER is a normal physiological process that occurs in healthy infants"⁵ So one has to delimit the problem. When is it a variant of normal toddlers' behavior and when is intervention required? The demarcation between esophagus and

stomach in newborn is not the sphincter we know in older children – let alone adults – but an open stomach entrance which allows almost painless vomiting in these babies. Everybody knows of babies vomiting – and smiling immediately afterward, having got rid of an unpleasantly full stomach. More often than not it is the air they swallow with the food that forces the chyme up and out. Therefore the first advice is to keep the infants vertically on your arm till they burp before putting them in their cradle.

Those few others keep their mothers unhappy, regurgitating time and again, sometimes very acidic ejecta. Aspiration pneumonia, irritability and further problems like failure to thrive might ensue. We focus on these cases.

Sensu strictu then, one has not to deal with a malfunction of the stomach entrance – as it does not exist in young children before verticalisation⁶. The nosological deliberation of these cases can have a 'internist's angle (*calibration of the acid/base balance in the newborn*)⁷ and/or a functional approach such as from 'manual medicine' (alleviation of the peristaltic of the esophagus). Needless to say we choose the latter, last not least as it is often overlooked and both aspects of the problem are not mutually exclusive.

Many of these infants suffer from additional ailments, too, and it is quite challenging to frame their situation appropriately. One has to try to avoid confounding the symptoms with the structural cause, and as Lewit accentuated already some years ago “*The therapeutic methods which are relevant for treatment in orthopaedic or myoskeletal medicine normalise function and not (structural) pathology. This is of fundamental importance, because one cannot pinpoint function to any single structure or localisation.*”⁸ This makes verification of the course of action we propose so difficult, as there are quite a few dimensions to it, and

not all can be double- blinded easily⁹. But the least we can do is to evaluate the therapeutic effect on a given symptom/diagnosis.

Results

As we try to understand the environment our 'reflux'- babies are surrounded by we have to be aware that several evaluation instances skewed the situation. That the toddlers we treated as having 'reflux' vomit frequently is almost self-evident (see Fig.1). More interesting is the fact, that almost all of these children had a fixed posture. Only 7 had no such problem, while 44 had a fixed lateroflexion, 65 a fixed retroflexion and 92 both, which indicates a mechanic component (KISS) of their situation.

Other items were less remarkable, as the birth weight (3280g) or the length at birth (51cm, numbers indicated are – if not otherwise indicated – medians). The length of the pregnancy (39 weeks) or the distribution or the newborns' sex (m = 114, f = 94) was as inconspicuous as the age of the mother (29y).

The birth mode was vaginal/spontaneous in 148 cases (with 21 vacuum or forceps) and 61 cesareans, and as such not overly unrepresentative (32% in Germany in 2010)¹⁰. In 21 cases the parents knew about a 'Kristeller's procedure, i.e. an external pressure by the obstetric team. We could not find any relevant circumstance in the family history or the pre-existing diagnoses of the parents.

The onset of the complaints was during the 1st month (4 weeks), but many of these infants started vomiting from birth. They were about 3-4 months old (15 weeks) when they were brought for treatment, having suffered 2 months before (9,7 weeks on average). Whereas para- medical referrals and those by doctors are roughly equal (56 by doctors, 23 by midwives, 38 by osteopaths/physiotherapists),

more than 80 came through friends/colleagues.

Most of the children had some treatment before (55 physiotherapy, 74 osteopathy, 6 manual medicine) and almost all had some treatment by their obstetrician or pediatrician (198). Only very few (11) came directly, as the parents had already experienced a successful treatment of an older sibling.

It is not very surprising that the level of satisfaction of the prior treatment was low by the parents (average 5,2 of 6 - lowest). Had they been content, they would not have taken the effort of coming to our clinic (most of our patients come from outside Köln).

Clinical outcome

In general, the families answered that they were content with the effect of the treatment (median 2, average 2,4). They noted it was difficult to identify exactly when the improvement set in, as they reported for example that the baby slept better immediately afterward, but took 2-3 days to stop vomiting. Many parents reported that "*the child was happier*" or "*She was more content*" - which are statements difficult to quantify and even more difficult to analyze quantitatively. Whereas in 164 cases parents were very or extremely unsatisfied ('5' or '6') with the treatment before their visit to our consultation only 8 answered with a '5' and none gave a '6'. So with all these limitations we can say that in general the babies and their families were better off after their visit to our consultation. As we saw when we tried to analyze the effect of manual medicine in cases of chronic headache in children the difference of an improvement due to a sham treatment and the 'real thing' is such that any double-blind protocol would be difficult to evaluate. With infants this is even more so the case.

Treatment

The therapy consists of one manipulation of the cervical spine with a low force¹¹, a fraction of the force habitually used in the treatment of an adult's spine. A traumatization of the local blood vessels can be excluded¹². Caveats include immediate prior treatment or vaccination, an acute infection, or osseous malformations. At a radiography of the cervical spine A-P is normally sufficient for the examination before verticalisation. We derive additional information about the exact technique from this radiography¹³. The baby to be treated is put on the bench before the therapist and then the push on the neck in the right side, the right angle and the right force is applied. This takes about one second. It is not surprising that most parents do not 'see' the therapeutic moment and are sometimes quite skeptical. It is a basic fact of manual medicine that it does not get better by being applied more (often)¹⁴.

Discussion on the nosological level

A basic problem with a given health problem is the approach chosen to look at a given pathology. An internist tends to see things through a pharmacological angle. So a baby which vomits a lot and even suffers from aspiration is analyzed as having an overly acidic stomach - and rightly so, because when it is checked gastroscopically we find the low pH we looked for. On the other hand somebody who focuses on malfunction - and manual medicine is basically busy with that¹⁵ - will choose another approach.

Malfunction and biomechanics are by definition difficult to localize. There is not The Sick

Spot, the broken part, sought by many in medicine, rather the problem is a 'software' problem, a functional glitch. In the search for this approach S.Lem's remark comes to mind, that *"A scientist wants an algorithm whereas the technologist is more like a gardener who plants a tree, picks apples and is not bothered about how the tree did it. A scientist considers such an utilitarian and pragmatic approach a sin against the laws of full knowledge."* We are – frustratingly – often confronted with the insight that there is no way direct, objective way from a collection of small facts to a coherent therapy. The beginning of a new therapy is often a serendipitous observation of a 'new' fact – and then we work on the explanation. In manual medicine this is exceedingly true. There is no immediate change in the relation of the vertebrae of the cervical spine after a successful treatment, but the function is restored, and the patient's problem taken care of.

So we are well advised to stay humble and admit that, most of the time, we are 'health technicians' trying to become scientific in our quest for the deeper explanations of our therapeutic successes, but not scientists who analyze nature to come up with novel ways of helping sick and ailing persons. If we do not admit that 'top-down' approach of manual medicine we'll get stuck in the verification of petty details (life is too short for that) and in the end manual medicine will be a better version of physiotherapy. Nothing wrong with that, but there is more to it. The remarkable effects of one manipulation in these babies show this.

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