Current Practice

CHILD CARE IN GENERAL PRACTICE

Minor Disorders in Infancy

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There are disorders in infancy which may be minor but which can cause the mother a great deal of distress. Some of these are discussed below.

Blocked Nose

Babies are entirely dependent on the nasal airway for breathing except in the act of crying. If it is blocked they are in serious trouble. Under the age of 3 months a baby's actions are all automatic responses. He cannot make voluntary movements or take avoiding action except in the crudest way. He cannot use the mouth as an airway for quiet breathing. If born with choanal atresia he is in desperate straits. A small baby with a catarrhal infection may therefore gradually go blue because of the inadequacy of his nasal airway. Many babies get admitted to hospital with a diagnosis of bronchopneumonia when in fact a blocked nose is what they are suffering from. Improvement is quickly achieved by (1) sucking out the nose, using a mid-wife's mucus extractor with a catheter small enough to be passed into the nasal passages; (2) administering nasal drops of $\frac{1}{4}$ to $\frac{1}{2}$ % ephedrine in normal saline every two or three hours; (3) giving an antibiotic for the secondary invaders. This treatment is not beyond the competence of most single-handed mothers, but an extra pair of hands to help when sucking out is an asset. Some of these babies are indeed suffering from bronchopneumonia as well as a blocked nose, being victims of an infection of the whole respiratory tract, and need oxygen and hospital care—but not all.

Earache

A baby hitherto silent from 10 p.m. to 6 a.m. has his first sleepless night. This is very likely to be due to otitis media even though he seems all right the next day. The middle ear at birth is nearly adult size, but the external auditory canal leading to it is minute. Failure to view the drum is often due to using an old-fashioned auriscope.

The Mouth

Thrush

Thrush is often symptomless, but in a baby who is sick for other reasons and has a dry mouth due to inadequate fluid intake it becomes more invasive. A stomatitis then exists with reddening of the mucous membrane and reluctance to feed. Thrush oesophagitis and septicaemic invasion of the body may still be encountered in countries where medical and nursing services are very thinly spread.

Thrush spores on teats may resist Milton when bottles and teats are sterilized by this method. The source of thrush may be the teats unless the manufacturers' instructions are followed

implicitly or unless the teats are separately boiled. The monilia finds the buccal mucosa and the maternal vaginal mucosa equally congenial. Nystatin pessaries for the mother may deal with a source of infection and avert reinfection of the baby.

There are many remedies for thrush now in limbo. Gentian violet 2% has recently lost ground to nystatin and Dequadin (dequalinium chloride) paints, which, though perhaps no more effective, have the advantage of not being messy and of allowing one to see what is happening. One of the oldest remedies is silver nitrate; it deserves to be revived. A small cotton-wool swab dipped in a 1% solution (the excess squeezed out) is rubbed on to the monilial plaques once an hour a few times, or at least before each feed. This will bring the most extensive thrush under control in a day. Treatment may be continued with any of the fungicides mentioned or with further applications of silver nitrate. The risk of argyria is negligible since the silver is immediately precipitated as the insoluble silver chloride in the surface of the mucous membrane. And the quantity applied is far less than that which has been used in the past for wound granulation, coagulation of burns, or vesical irrigation.

Teething

No symptoms should be attributed, in the doctor's mind, to teething till they have ceased. In other words, only when it is all over and no other cause is apparent is it permissible to say it was the teeth. A child who is miserable and eats poorly at a time when several teeth are appearing through red and tense-looking gums, but improves when they are through, may reasonably be said to be suffering from teething. When the premolars and first molars all come through at once the discomfort is quite obvious, but the incisors alone can seldom be blamed for much. A brilliant erythema of the cheek occurs in some infants. It is known in France as *le feu des dents*. Reflex vasodilatation from stimulation of the 5th nerve is a nice explanation for which no proof is available. Apart from ectodermal dysplasia and the occasional congenital absence of a tooth or pair of teeth lateness in eruption seems to bear no relation to health or to other aspects of development and it may confidently be stated that all children cut all their teeth sooner or later. They can also eat solids or semi-solids whether they have them or not.

But to the mother the teeth are something to cling to in a welter of uncertainties. She does not carry in her head a differential diagnosis of symptoms in order of likelihood. The idea of "teething" keeps her worries within bounds and gives her patience and hope. If we as doctors have no certain explanation of a child's behaviour we should not deny the mother hers.

During the first five months of life when no teeth may be expected some other peg must be found on which to hang the daily worries and so we have "the wind."

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Wind

The stomach and intestines of infants contain at all times a lot of air which is swallowed and an unknown but probably small quantity of gas from the fermentation of bacteria. The only conditions under which it is not present in the intestine are duodenal atresia, congenital hypertrophic pyloric stenosis with much spasm of the pylorus, and prolonged tube feeding.

A small or large fraction of this swallowed air can always be brought up quickly by the following manœuvre. Place the baby in a sitting position—usually on the mother's lap, but the edge of a table will do—and lean him forwards and sideways over his own left knee. This will bring the dome of the air bubble directly under the cardiac orifice of the stomach; pressure does the rest. Putting the baby up over the shoulder reduces the pressure and there is longer to wait for the belch. Rubbing the back serves only to pass the time. Bringing up the wind produces two effects: surprise, which incidentally may be a useful check to crying, and happiness—that is, relief and pride—and this lowers tension.

Some babies swallow more air and pass more flatus than others but cry no more or less than the rest. A case can be made out for the air-swallowing type of baby having the wind brought up half-way through a feed by the left-knee pressure technique, but in general babies need only a pause to take breath or should go right on, orgiastically, to repletion.

Crying rapidly inflates the stomach, as can be seen during screening for a barium meal. A nervous person speaking in public experiences the same thing. That crying is the cause of wind, not wind the cause of crying, is too well known to us doctors for discussion here: the problem of wind is the problem of the crying child (see below: "Screaming Baby").

In other races with different creeds the fears that accompany the early rearing of the human young take various forms. We do not believe in devils or evil spirits in the trees that rustle over the homestead; we are a bowel-conscious nation and we believe in something if not tangible or visible at least audible, the wind.

Infantile Spasms

Infantile spasms, or "salaam" fits, are a major disorder masquerading as a minor one. The mother thinks that the baby's curious doubling-up movements are due to wind, and professional people who have been unaware of their sinister significance have in the past let them pass as such. There is a sudden general movement of flexion, particularly of the arms (the salaam-like gesture). The head flexes and is raised from the cot if the child is supine or nods on the chest if he is sitting. The legs are flexed at the hips. There is often a flush. One spasm is likely to be followed by a run of them. Each lasts one to three seconds. The baby may cry out after each one as if distressed by it. Occasionally the spasm takes the form of extension of the arms and backward arching. The underlying brain disorder is always serious, and may be (1) some form of congenital maldevelopment, retarded mental progress being already apparent, (2) cerebral birth injury, (3) a reaction to inoculation by triple or single antigen, (4) an acute "encephalopathy," which means no more than saying a deterioration in function due to histological change (leucodystrophy) or metabolic fault—for example, phenylketonuria or faulty enzymic action of pyridoxine.

The electroencephalogram may show chaotic very high voltage slow waves and spikes. It appears possible to modify the disease in some patients by A.C.T.H. or by pyridoxine to the extent of stopping the spasms or even arresting the mental deterioration, though this is unlikely. At all events early diagnosis offers a chance, whereas long-standing cases are bound to end up very abnormal.

Morning Swelling of Hands

Morning swelling of the hands is mainly a winter complaint. A child aged 8 to 16 months is found in the morning sitting up with one hand, forearm, and sometimes upper arm swollen, cold, and red or blue. He is quite unconcerned about it. As the day goes on this arm resumes a normal appearance, but next morning there it is again. Sometimes both hands or arms are swollen. Inquiry generally reveals that the baby sleeps on his back with one or both hands up beside the head. During the still hours of the night (when incidentally the room temperature is liable to fall) the arm is relatively ischaemic. When brought down beside him on waking, or when it becomes dependent on sitting up, it becomes hyperaemic, but capillary stasis may persist and permeability may be increased; hence the onset of swelling and cyanosis after waking. It is not found during sleep. Tightness of the clothing does not seem to be the cause but should be borne in mind as occasional examples of oedema or worse are met with due to local strangulation—for instance, gloves kept on with tight elastic bands or the finger-holes of mittens being too tight.

If the hands can be secured under the bedclothes by sewing the sleeves to the pyjamas or sleeping-bag (safety-pins in a bed are to be avoided) the morning swelling of the hands will not recur. But the wisdom of interfering with a baby's sleep habits is questionable in a benign condition such as this, especially if it is for thumb-sucking that he brings one arm up. Ensuring that the room is kept warm all through the night may be all that is required, for the phenomenon is seldom seen in summer.

Tongue Tie

The tongue is a highly mobile exploring organ. Its strenuous movements will stretch any short frenum in the course of time, except one of the tough, fleshy variety. It is justifiable to cut these to give the child a tongue at least as mobile as that of his playmates. It should be divided between ligatures under anaesthetic. A short frenum is never a cause of feeding difficulty, or late speech, or dyslalia. The snipping of thin frenums with scissors in surgeries tends to perpetuate such ideas.

Parallelogram Head

Many babies develop an asymmetrical shape to the head in the first three months. If we consider the shape of the head viewed from above the vertex as a rectangle, the long sides of which are formed by the parietal bones and the short sides by the frontal and occipital bones, then we frequently see the rectangle shoved obliquely to the right or left to form a parallelogram. This results from the infant constantly lying with his head half turned to one side in preference to the other. Forces acting on the soft skull deform it so that the occiput is flattened on one side and the forehead protruded on the same side; the ear on that side is often crumpled forward in cabbage-leaf fashion. The face also partakes of this asymmetry—the half profile seen from one side is narrow, from the other side the face is broad. Many people show traces of this in adult life. If the baby is a girl and later wants to be a film actress she will find it a handicap, as her parallelogram head, or what remains of it, is disconcerting to producers and camera-men.

The mother sometimes fears that the child has an abnormal brain, but usually only wants to know if something can be done about it. Unfortunately at 3 months of age it is too late, as the skull is now too hard to be remoulded by making the child lie the other way, a treatment at which he will protest in any case. But with growth of the head and of the hair the squashed appearance becomes less noticeable.

Prevention is better than failure to cure. It is written in all the baby books that the child should be put down to sleep on

alternate sides. But under 3 months of age a baby will tend to turn to a diffuse source of light, and it is remarkable how frequently questioning reveals that in the baby's room there is a window on the same side of the cot as that to which his head is habitually turned. When the cot is placed alongside the mother at night the baby is usually turned so that the two can face each other. This may initiate the preference for a particular side. Here then are two possible causes, which are simply countered by frequently reversing the cot end to end.

The Screaming Baby

It is a fact that another person can often pacify a screaming baby when the mother cannot, and when these babies are taken into hospital to give the mother some peace they cry much less than they are reported to do at home. If it is permissible to deduce anything from these two observations it is simply that small babies are quite aware of differences in handling. These may be subtle things such as firmness or looseness of contact, physical warmth given out by the mother, smell, sound of voice, the mother's silence, or something between the two of them which we cannot fathom. As the baby cannot help being what he is it is customary to blame the mother for being over-anxious, tense, or cold, or ham-handed, or rejecting. She may indeed be any of these, but it must be remembered that these things have small beginnings and that we are dealing with a vicious circle in which anxiety increases and love cools. After

three months of it a woman may be a different person from the one she was when it started. She will seldom accept the sedative offered her, which, however nicely it is explained, only emphasizes that she is regarded as the cause of the trouble. What she needs is a good opportunity to talk about everything for not less than 40 minutes on more than one occasion. But it is never easy for the doctor to find time for this.

The next line of approach is to "knock out" the baby with chloral and so break the vicious circle. Mothers are also reluctant to dope their babies, but it is easier to justify in this case. The best reason to give is that he is spending too much time awake and is over-tired. One grain of chloral hydrate in a teaspoon of syrup before every feed, or double this dose if necessary, will usually do the trick. It must be kept up for three or four weeks. Admission to hospital is fully justified in many cases to give the mother and father a few nights' peace or "to make sure there is nothing organic." (We are familiar with past histories of microcephalic, spastic, or subnormal children, some of whom are stated to have screamed solidly for the first three months of life.) When she visits, the mother should not be prevented from picking up and nursing her own baby even if it starts up the crying.

The first three months with a new baby should be a delightful time, not a purgatory. But even though in the end the screaming is forgotten or forgiven one fears it may leave some scar; therefore give time to the mother, don't stint the chloral, and start it early.

TO-DAY'S DRUGS

Antiseptics

The word antiseptic is now generally used to describe substances which destroy or inhibit the growth of micro-organisms and which can be applied to living tissues. Disinfectants are germicides which are too corrosive or toxic to be applied to tissues, but which are suitable for application to inanimate objects. Disinfection means the killing of all micro-organisms, except spores, and can refer to the action of antiseptics as well as disinfectants.

The value of washing the hands with antiseptic solutions was demonstrated in 1847 by Semmelweis when he obtained a considerable reduction in the death rate from puerperal fever by the use of chlorinated lime. Lister was also successful in reducing the number of wound infections by prophylactic application of an antiseptic (carbolic acid) to wounds. Antiseptics are still valuable in surgery for skin disinfection and to assist in the control of cross-infection, but more active and less toxic compounds are now available. Many of the newer antibacterial compounds are antibiotics and chemotherapeutic agents, which will not be discussed in the present article except when combined treatment with antiseptics is being considered.

Phenols and Related Compounds

Phenolic disinfectants are active against a wide range of organisms, including *Pseudomonas pyocyanea* and tubercle bacilli, and are not readily inactivated by organic matter. They are less active against spore-bearing organisms. Many of these compounds (e.g., Lysol, Sudol, Black fluid, White fluid) are suitable for general disinfection purposes, but too corrosive for use as antiseptics. Mixtures of synthetic phenols have recently been introduced which are less corrosive and may be applied to the skin in dilutions which are bactericidal. An example of

this type is Hycolin, which is available as a liquid soap and a hand-cream or may be used in a 1% aqueous solution.

Chloroxylenols (e.g., Dettol)

These are relatively non-toxic antiseptics and can be used safely in high concentrations. They are rather less active and more easily inactivated by organic matter than many other phenolic disinfectants. *Ps. pyocyanea* has been isolated from the corks of bottles containing chloroxylenol.

Hexachlorophane

This antiseptic is highly active against Gram-positive organisms but less active against Gram-negative. It is relatively insoluble in water but may be incorporated in soap preparations without loss of activity. The action is slow with little immediate effect, but a reduction in skin flora can be obtained by consistent and repeated use of hexachlorophane soap or detergent cream. Hexachlorophane liquid soap or detergent cream is the most effective, but non-detergent creams are less effective. Skin sensitivity reactions occur, but are very uncommon.

A number of hexachlorophane preparations are available, including bar soaps containing 1-2% hexachlorophane, liquid soaps or detergent creams containing 2-3% (e.g., pHisoHex, Zalpon, Disfex, Ster-Zac), 0.3% hexachlorophane powder, and a bath concentrate containing 10% hexachlorophane (Ster-Zac).

Chlorhexidine (Hibitane)

Chlorhexidine is one of the most useful skin antiseptics, being highly active against vegetative Gram-positive organisms and moderately against Gram-negative. It is soluble in water