

Breastfeeding

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In dealing with difficult cases of breastfeeding the only thing of certain value is to understand the principles lying behind rules that are given for the management of these cases, since no actual case ever resembles entirely, a textbook description of it.

Breastfeeding must first be considered in its relation to other forms of feeding. The time when breast-feeding was the only known form of rearing an infant has long gone past, and in approaching a mother who is either expecting to have a baby or one who is in charge of a young infant it is of the utmost importance if one is to be successful in inducing her to feed the baby herself, that one should be able to give reasoned and convincing arguments for so doing. Perhaps one of the most important spheres of work for the nurse in ante— and post-natal infant care is to be able to give the mother belief in the real value. of breastfeeding and confidence in her ability herself to feed her baby. In order to persuade the mother, the nurse herself must have a clear conception in her own mind of the grounds for her belief in breast-feeding. As an aid to this, figures are often very useful, and one of the most suggestive can be taken out of the ordinary infantile mortality returns of this country. This fluctuates around 70 per thousand births, and of these deaths 85 per cent. occur in bottle-fed babies, leaving only 15 per cent. of the total infantile mortality of the country for the breast-fed baby. Professor Budin, of Paris, also gives some interesting figures in this respect. During a certain period in France, he records, that 550 infants perished within 13 days, and of these 493 were bottle-fed and but 57 breastfed. Many other observers have recorded statistics of this kind so that it would seem as if one of the most potent forces one could set in operation for the diminution of infantile mortality in this country would be to bring about an increase in breast-feeding.

One would think that in face of a situation like the above and in consideration also of the very many other great advantages to the infant which result from breast-feeding it would be very nearly a universal practice among the mothers in this country. I think that the most serious bar to the increase in the practice of breast-feeding is due to the fact that the medical and nursing profession under-estimate the difficulties likely to be met with and therefore give insufficient time to the study of lactation, with the result that when these difficulties inevitably arise they are unable to deal with them. If we were only to give more of our attention to the study of the Whole process of breast feeding and of the reasons for and causation of its difficulties, we should be more than rewarded by the healthy babies that would be produced.

Anatomy of the Breast

Developmentally the breast or mammary gland arises from the skin. That is to say, that as the embryo develops, certain of the ordinary skin glands take on a special development and make of themselves a rather more highly-developed network of cells which later, with the coming of puberty, develops into the ordinary adult gland. The secretion of milk is intimately related to the development of the gland substance and the mechanism of regulating it is a matter of which we have as yet a very imperfect understanding. The crucial point, however, about the anatomy of the breast is this origin from the skin, since the breast maintains a most intimate connection with the skin, and matters affecting the general skin condition will also bear upon the effectiveness of the functioning of the gland.

The anatomy of the breast is also of interest since it gives us a clue to the difference in lactation shown by the primipara and multipara. Throughout the substance of the gland are, as it were, small bags, lined with double rows of cells opening on to a channel which, in the non-lactating breast, is only potential and not actual. From these open small ducts, which, joining into a larger duct, lead eventually to an ampulla—or collecting station—situated just beyond the areola. From the ampullae six to eight excreting ducts open, which pass through the nipple, in some cases joined together to form a single opening, but usually emerging in four or five discharging points, through which the milk flows in separate streams. When the glands are full in the middle of lactation. and with an active, well-functioning breast, if you pass your fingers over the skin of the breast, you will feel a number of little hard lumps, much harder before a feed than after. These are the dilated acini or bags containing milk, and the presence or absence of them to the touch gives an indication as to the activity of the gland. As regards the size and shape of the breast, that is, of course, very variable, and a classification has only begun to be made by which we shall be able to gather some indication as to the meaning of the structure of the breast and its influence on function. On the whole it is the small firm breast whose action is the most satisfactory.

Physiology of the Breast

With regard to the physiology of the breast it is of the greatest importance to have a clear grasp of such facts as are known in regard to the, actual method of the working of the gland.

Influence of Emotion

The first but that strikes one immediately in thinking of breastfeeding is the influence of emotion. That this is a central nervous influence is clear, but we are not at all sure as yet as to by what path it works. All who have had any experience with mothers will be able to recall cases where sudden emotion—fear, pain, grief, or even

joy—has been associated with a sudden cessation of milk. On the other hand, the importance of the mother's own attitude of mind to the question of her own flow of milk is a matter of everyday experience. If a mother be determined to nurse her baby and physical conditions are even partly in her favour she will succeed in doing so, whereas the first factor influencing the decrease of milk supply in many mothers is the dawn of doubt as to whether they will be able to accomplish successful lactation. If a mother be entirely convinced that under no circumstances will she be able to feed her child, then, however good her emotions are, she will ultimately fail in nursing her infant.

The Hold Factor

The second factor which influences the secretion of milk in the breast is the question of the amount of fluid available from which the milk can be secreted. This again is a matter of common knowledge, and from the earliest times instructions given to nursing mothers have included commands as to the drinking of fluid. But, as the fluid taken by the mother can only exert an influence through the blood supply, it is wiser to consider this factor "the maternal blood supply." Anyone who has watched the incoming of milk in a number of patients will realise how intimately the question of the blood supply to the gland is associated with the production of milk, and how any disturbance in the latter is inseparably associated with disturbances of circulation, flushing, engorgement, and dilation of the veins. The exact relationship between the blood supply to the breast and milk produced within it is not known, but the potency of influence of the one upon the other is a cardinal factor in the physiology of the breast.

The Maternal Skin

The third factor, the maternal skin, has already been referred to and is rather less obvious than the two already considered. It has a bearing, however, much wider than at first would be supposed. It is clear that part of the nerves of supply to the deep substance of the gland are derived from the skin and since the general tone of the skin of the body is reflected in the tone of that covering the mammary gland, any condition which tends to lower the resistance and vitality of the skin throughout the body will also affect the healthy working of the mammary glands. This point will be referred to later in considering the establishment of lactation.

Stimulation

The fourth factor to be considered is the matter of stimulation, that is to say, of the rhythm in which the breast is emptied and the vigour with which this is done. The area of stimulation to the gland—that is to say, from which the nerves that stimulate the gland penetrate the substance—is the area of skin around the base of the nipple, that is, the areola and the skin immediately outside it. One of the most potent factors in inducing secretion within the gland is vigorous pressure upon this area.

Furthermore, Nature is a careful housewife and does not re-stock the larder until it is empty. It is the total emptying of the gland at one feed that principally effects the recharging of the gland.

These, so far as we are aware, are the four main factors regulating and influencing the production of milk in the breast.

Foundations of Lactation in Pregnancy

That the foundation for successful lactation is laid in pregnancy is a fact which, in my experience is too commonly overlooked. As a result of neglect during this period much time has to be spent in Lying-in Hospitals putting things right which, with a little care during pregnancy, need never have gone wrong. Applying the four factors as enumerated above, we first of all consider the question of emotion during this period. It is the peculiar and most important duty of the nurse to assist the mother during the antenatal period to gain the right mental attitude to her future nursing. Especially is this true in the case of the young mother with her first baby. She has no previous experience, is very often depressed by a family history of difficulty in feeding and by failures seen by other people. It is of the greatest importance, therefore, that she should be encouraged to have a happy, healthy and confident outlook, and be ready to meet any difficulties, obstacles, or pain that may come her way with cheerfulness and confidence. The first point, therefore, in ante-natal work is the preparation of the mind of the mother.

To take the second point, the maternal blood supply. Upon the soundness of the maternal blood the whole question of a satisfactory milk supply will depend. The mother with a chronically poisoned or unsatisfactory blood supply is not, under any circumstances, going to produce satisfactory milk. The mother in her pregnancy is using the materials of her own blood and body to make the body of her infant and to build up the foundation for her future milk. It is during her antenatal period, therefore, that she can be helped to get rid of all toxic sources in her body.

Eliminating Sources of Toxæmia

The first of these sources is constipation. Few things are such a frequent source of trouble both to doctor and nurse during the lying-in period as an unconquered tendency to constipation and few things are so detrimental to successful feeding. It is, therefore, of first importance during pregnancy to see that a regular habit of bowel action is established and that no woman with chronic intestinal stasis, seen in this period, is allowed to reach her labour without treatment.

The next toxic source is the teeth. It is not sufficiently realised of what vital importance to health is the matter of dental caries and particularly is this true of

lactation. I have seen a definite proportion of cases of deficient lactation cured by attention to chronic dental caries. One mother seen recently, whose breast-fed baby continually had green stools and was vomiting, was very unwilling to wean it and equally unwilling to have her teeth examined. She was, however, induced to have a dental x-ray, and two old-standing abscesses were found. These were removed and, in a week, or two the baby's health settled down, and she progressed quite satisfactorily. The importance, therefore, of the teeth should never be overlooked, and in every antenatal case the mother should be encouraged to have a dental inspection.

Care of the Skin

It is of considerable importance in every antenatal case to look at the general condition of the skin. Is its tone good? Does it show evidence of adequate care? The elasticity of the skin is going to mean that the nerve supply of the skin over the breast is healthy and in good order, while its tone gives a clue to the condition of the little muscles between the ducts in the breast and nipple, and the general care expended upon it will be reflected in the cleanliness of the skin of the breast and nipple and prove an important factor in the later prevention of sepsis of the nipple. Although it is perfectly true that one is continually coming across cases of flaccid and toneless breasts in multiparæ which produce an adequate supply of milk, yet on the whole it is the firm, well-toned breast that produces the best supply of milk. In this connection it is of value to examine the nipple since, apart from any gross defects, such as, absent, inverted or depressed nipples, it is the general build and condition of the nipple which is going largely to determine the ease with which lactation will be established. A very simple test of the ability to respond to the baby; in cases of low, poorly-formed nipples is to take a little cotton wool and cold water and stroke lightly across the areola towards the base of the nipple. In a healthy skin the result will be a firm and satisfactory erection of the nipple.

Ante-Natal Care of the Breasts

In all cases, however, it is wise to give certain simple directions with regard to the ante-natal care of the breasts.

The breast should be sponged once a day with cold water and then dried quickly with a rough towel towards the nipple, the breast being supported meanwhile by the hand. If the mother finds cold water painful, let her start with warm or tepid and work gradually towards a colder temperature.

The mother should be advised to scrub her nipples daily with either a toothbrush or a nail brush starting with a soft one and increasing the strength of the bristles as the nipple hardens in response. The idea of this is very simple. It would be very inconvenient if when we scrubbed or gardened or played tennis the pressure of the hard wood upon our hands continually made abrasions. Nature, therefore, responds

to the call upon it by hardening the skin across the base of our fingers so that in time even with extreme pressure no blister will result. In the same way regulated and moderate pressure upon the nipple will result in a hardening of the skin sufficient to prevent any chance of cracking later, even under the jaws of the most vigorous baby. Another result also that such scrubbing will produce is to soften and remove those hard masses of secretion which tend to collect in the alveoli of the nipple, and which prove so difficult an obstacle during the lying-in weeks in hospital. It is of the greatest importance that every mother should come to her labour with a clean, hard, well-supported nipple, a well-toned breast and efficiently acting skin and a good blood supply to it.