THE INFANTILE FACTOR IN FAILURE OF BREAST FEEDING.

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The observations to be detailed were made at the Salomon's Welfare Centre over a period of approximately two years. All cases of failure to breast-feed were kept under observation as much as possible during this time with a view to finding out why they failed. Excluding the cases where some force outside our control deprived the child of his milk, or where the mother took matters into her own hands and lost the milk through her own mismanagement, we gave a series of test-feeds as often as practicable, during which the behaviour, method of sucking and other points about the child, and also the mother's mode of handling it, were noted. X-ray examinations of the stomach were also made in many instances. The various cases soon fell into groups, so that it became possible to see what are the really common and important causes of failure to breast-feed. To know where the dangers lie is to be prepared to try to avoid or overcome them. Breast-feeding in every case is the ideal one would like to aim at. The number of breast-fed babies at this Centre is, as a matter of fact, high, but it might be higher still. It was as a step towards the goal of universal breast-feeding (which can never of course be perfectly achieved) that this research was begun.

A word as to the opportunities of observation at the Centre. The area served by the Centre is a very small one, and this has its advantages. For the lives, the homes, the histories and many other facts about the parents are very well known to the Staff of the Centre. A great deal of intimate information was available, which could not have been obtained so well with a larger area. The proximity of the great hospital was another help to us. The two centuries since Guy's Hospital was founded have not left the folk who live around it unimpressed: generally speaking they have faith in it. So we find among them a confidence in carrying out treatment, a readiness to act on advice, and a regularity of attendance, which is greater, I am sure, than it would be without the long tradition of the Hospital. There has been one disadvantage, and that is lack of space at the Centre. A special room where all the test-feeding could be carried out, under supervision, would have been a help. Then the mothers could leave their babies for the day and come up at intervals for test-feeds, perhaps repeating it for several days. Very complete and concise information should be obtainable in this way. The advantage of such a scheme in the case of the harassed mothers and the unrestful child goes without saying. But as it was, the opportunities for prolonged observation were not so great as we should like.

Scope of Observation. This series comprises every case in which breast-feeding failed wholly or in part, from whatever cause. Total failures were all
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included: so also were those in which the breast-milk had to be permanently supplemented with some other food, as they were regarded as partial failures. Cases in which complete breast-feeding was re-established were not included: they form a class by themselves. The age limit was up to six months. Some arbitrary limit was necessary. This was chosen since it is the age at which Nature seems to hint, by providing the child with teeth, that pure breast-feeding may be supplemented with something else. Further, according to Starling, the quantity of breast-milk diminishes in any case after this time. A period of two years was occupied with the observations and during this time 115 cases were recorded.

At the outset they fall into two groups, those controlled and those uncontrolled. In the former some abnormality of child or mother was at least partly responsible for failure. In the latter, either mismanagement on the mother's part, or some accident or interference from outside was the cause of failure. In them there was no intrinsic reason why the breast-milk should ever have been lost, and no abnormalities to account for it. The uncontrolled make up a large number, nearly half. They are not to be considered genuine cases of breast-failure; that is, had there been no other food but breast-milk available, the child would have continued to be breast-fed in all of them. But they are of considerable interest since they show what a large number of cases of failure to breast-feed are avoidable; or in other words, how many mothers fail to carry out a simple function through their own fault. For it may at once be said that those who failed only through force of circumstances were very few indeed. Further, we see what are the mistakes they make, and how they lead to failure.

I. FAILURE OF BREAST-FEEDING IN GROUP OF UNCONTROLLED CASES.

-The uncontrolled cases are best taken first. They are divisible into cases of Mismanagement of Feeding and cases in which some External Cause was the factor.

A. MISMANAGEMENT OF FEEDING.

(27 cases, or 23·5% of the total.) In this group there was failure, complete or partial, to breast-feed owing to mismanagement on the mother's part, and not to any disease in the child or mother. In 24 out of the 27 instances incorrect supplementary feeding was responsible.

In order to explain the mistakes, it is necessary to give a brief account of what we consider the best way of supplementing an insufficient supply of breast-milk. If a shortage of breast-milk is suspected, a series of test-feeds is done to determine how much milk the child sucks. The amount that can be obtained by manual expression after the feeds is also taken. The average of the amount sucked in a number of feeds may show a defect from the amount calculated as necessary for the child's weight and age. If this is so, then the expressed milk is also ordered to be given by spoon after the child has sucked. If there is still a shortage, the amount is made up by giving a feed of cow's milk and water slightly sweetened after the expressed milk, also with a spoon. Suppose, for instance, the calculated amount required for a child was 5 ozs. per feed, and
that the average sucked was only $3\frac{3}{4}$ ozs., with an average of $\frac{1}{2}$ oz. expressible in addition; the child would be put to the breast first, then given the expressed milk, and finally 1 oz. of a mixture of cow's milk and water with a little sugar or extract of malt, making the total up to 5 ozs. In practice, it is a good plan to give a little under the requirements: it is certainly important never to give more. Too big a meal at one feed means diminished appetite for the next and diminished suction of the breast. The amount of milk will then not only tend to go up, but may even get smaller. The advantage of the method is that the breast is thoroughly emptied each time, and thereby receives the proper stimulus for a fresh secretion for the next meal. The amount sucked then tends steadily to go up; it is checked by further test-feeds, and as it rises, the supplementary cow's milk is diminished and finally abolished altogether.

Interpolation of Bottle-Feeding. (8 cases.) This is the commonest and most disastrous mistake in supplementary feeding. It is absolutely essential in all cases that the supplement should be given by spoon. Children frequently prefer feeding from a bottle to feeding from the breast. Even when breast-feeding is proceeding normally this is often so, and to introduce a bottle is to see the amount of breast-milk secreted gradually dwindle. For where there is any difficulty in feeding, the child will inevitably forsake the breast for the easily running bottle. Gradually less and less breast-milk is taken, and the bottle-feeds grow larger and more numerous until breast-feeding goes altogether, if the bottle is not abolished in time. With spoon-feeding the case is different: there is no incentive to the child to abandon the normal suction for such a tedious way of being fed.

Incorrect Food as Supplement. (7 cases.) Cow's milk diluted and slightly sweetened is the supplement that rarely fails to give satisfactory results. Or if, as very occasionally happens, the home conditions are so bad that fresh cow's milk is not considered safe, a dried milk is used. The mistakes made were all identical, namely, the giving of a sweetened condensed milk as a supplement. This substance is not only an ill-balanced food in itself, but it has a disturbing effect on breast-feeding. It is a fact that it is given successfully sometimes, and even given under medical advice; but it is far too risky to be advisable. The risk lies in the peculiar deliciousness of its sweet taste to the infant, who, having once experienced it, may thenceforth take no further interest in his natural food. To introduce a sweetened condensed milk often signals the end of breast-feeding; and if the condensed milk is given out of a bottle, the end is so much the nearer.

Unnecessary or Excessive Supplement. (6 cases.) A mistake often made is giving supplementary feeds without first ascertaining by test-feeds how much, if any, is needed. As a rule the breast-feeding can be rescued by promptly cutting down or removing the supplement. But in these 6 cases, the mothers persisted in their mistake in spite of advice. In 3 no supplement
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at all was needed but one continued to be given. In 3, that given was larger than was needed. The overfed child now fails to suck properly at the breast. The normal stimulus to secretion of breast-milk fails, and the amount secreted diminishes. Often there is excess of breast-milk to start with, as in three of our cases, but the trifling dyspepsia that results from this is mistaken for hunger: the unnecessary extra feeding is persisted in, and the infant's appetite rapidly declines. The heavy flabby breasts that often go with an excess of milk are very sensitive to the withdrawal of the suction-stimulus. They soon begin to dry up, and so the paradoxical position is arrived at, that an excess of breast-milk has led to its disappearance.

It ought to be a golden rule in breast-feeding that a supplement should never be ordered without a preliminary series of test-feeds. And, further, that the combined feed should never be above the child's needs, but if anything a trifle below.

Interference with Physiological Inanition. (5 cases.) For a little while after birth, the amount of milk taken is insufficient for the needs of the child. Weight is often lost for the first few days. The free secretion of milk is later produced by the child’s suction. If the child does not suck very vigorously, the period of inanition may be prolonged. Strictly regular feeds, and perseverance in putting the child to the breast, are called for when this happens. Many mothers, however, quite fail to understand this, and put the child on extra feeds of some other food; the suction then grows feebler, and the milk supply dwindles still further or disappears. The dangerous time seems to be about the end of the first fortnight, when the mother is beginning to get up and about. There are other distractions now and a great temptation not to persevere with the breast-feeding. In our cases, the earliest failure was at 10 days, and in the latest, partial breast-feeding was maintained for ten weeks.

These four mistakes just described emphasise one fact, that is, the danger of interference with pure breast-feeding except under guidance of skilled advice and careful control. From the pitfalls into which the uncontrolled cases have fallen we can summarise what mothers should particularly avoid doing.

(i) They should not introduce any supplementary feeding unless there is a proved shortage of breast-milk.

(ii) They should not give an amount that is greater than is necessary to bring each feed up to the quantity required for the infant’s age and weight.

(iii) They should never give a supplement by bottle.

(iv) They should not give a food that is likely to spoil the child’s appetite for breast-milk.

(v) They should not interfere with the preliminary period of physiological inanition.
Too Frequent Feeding. (3 cases.) These are totally different from those described above. The child was kept to the breast, but the breast was exhausted by being too frequently used. They are illustrations of the old country saying that the cow that is always milked is the one that loses her milk. Four-hourly feeding is the method that we find generally gives the best results. Too frequent feeding causes loss of appetit e and dyspepsia; the good hearty suction of the infant at right intervals, draining the breast dry at each meal, is wanting. Instead, there is a poor irregular suction, accumulation of residual milk, and ultimately a danger of failure of the secretion altogether.

Age Incidence. These cases of mismanagement generally occur fairly early. The earliest age at which weaning took place was 10 days. The latest was 16 weeks. The average was 8 weeks.

B.—External Causes.

(30 cases.) A large group in which some external influence determined the complete or partial weaning of the child. There is only a solitary case among them in which the weaning took place of necessity, and that is one where the mother died. In all the others, feeding could have gone on. Some of the reasons for giving up breast-feeding were excusable, as, for instance, where the mothers were obliged to work; others were quite futile and even disgraceful. They may be briefly described.

Folklore. (3 cases.) Fear of the effect of menstruation on the milk made three mothers wean their children. The effects are in truth either none at all or only sufficient to cause a slight temporary halt in the upward climb of the weight.

Work. (4 cases.) The necessity of earning a living in shops or factories made the mother wean her child in these cases.

Pleasure. (2 cases.) These two gave up feeding their children in order to have more time for enjoyment. In both cases weaning took place during a seaside holiday.

Separation. (2 cases.) Here the mother went into Hospital without the child or vice versa. In the mother's case it was scarlet fever, a disease in which it is generally considered possible to nurse the child. In the case of the child, it was the rare condition of congenital duodenal atresia with the still rarer result of recovery after operation. The mother had to make daily journeys to feed the child, but even so did not succeed in getting the milk supply well established. This case is difficult to place, since it might be argued that the severe illness and operation prevented the child from sucking properly. I have no observations on this point, however, and have left it rather conjecturally as a case in which separation from the mother at such a very early age was the determining factor.

Death of mother. (1 case.)
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Advice of relatives, friends, etc. (6 cases.) The offenders were grandmothers, "gamps" and other banes of infant welfare.

Advice of Medical Practitioners. (10 cases.) Looked at solely from the mother's interest, there was reason for weaning in some. One at least was wasting rapidly from active phthisis. Excluding this one there seemed to me no serious disease in the other 9. The justification for depriving the infant of its natural food in these depends entirely on the point of view. At any rate, secretion would have gone on normally.

Suggestion. (2 cases.) There seemed no adequate reason why the mother should lose her milk here except that she had done so with a previous child and was convinced that she would do so with the present one.

Age Incidence. The ages at which weaning took place were of course, very various, ranging from 1 to 23 weeks. The average was 11 weeks.

II. FAILURE OF BREAST-FEEDING IN GROUP OF CONTROLLED CASES.

In these, if there was any mismanagement, it was not at any rate uncontrolled by us. All the uncontrolled mistakes described under the first heading were either avoided altogether, or only occupied a secondary place. All cases in which some external influences beyond our control were the cause of the failure, were likewise ruled out. We are therefore left with cases in which the kernel of the matter was an actual failure of the secretion of the breast, dependent mainly on some abnormality in child or mother, or both. This is not to say that the failure was inevitable always. On the contrary, in many cases, the abnormality might have been overcome, but was not.

The cases are divided into groups, namely, those due to disease of the mother, two, and those due to disease of the child, in which was included the condition of nervous unrest.

A. due to Disease in the Mother.

(20 cases, or 19-1%). This group is clearly divisible into disease of the breast and nipple and disease of other organs.

Diseases of the Breast and Nipple. (6 cases.) Cracked nipples were responsible for two failures here, the pain of the child's suction being in each case the cause, and not any diminution in the amount of milk, at any rate at first. Indeed, test-feeding showed, in both cases, a fair quantity. But after a month or so of suffering while, in spite of treatment, the nipples were refusing to heal, the mothers refused to submit any more to the pain of it and put the child on a bottle. There was, therefore, no failure of lactation here, but a failure (very comprehensible) to bear pain.

Retracted Nipples. (1 case.) Drawing the nipples out with a breast-pump, the milk drawn off being given to the child, generally resulted in their elongation. Once the child can get hold of them, the rest is done by his suction, so this is not a frequent source of failure.

Deformity of Nipples produced by scarring, however, does not yield to this treatment, and was responsible for another failure.
Abscess of Breast (2 cases) should stimulate rather than discourage efforts at feeding. If the abscess has been opened, however, feeding from that breast may be impossible for surgical reasons. The child may still be tided over temporary difficulties by supplementing properly, and ultimately be brought up on one breast only. This is what happened in one of our two cases. For six weeks after the opening of the abscess, the child's weight ascended regularly and well on the single breast; but as there had been some mastitis in this side, the mother became convinced that the milk would be harmful to the child and (probably on the advice of friends) put him on a bottle. In the other case, a supplement was needed, which was gradually reduced from 3 oz. to 1 1/4 oz. as the amount of milk increased; but again, the mother fell into the hands of the enemy and foolishly introduced a bottle, with the usual result.

It is clear that in only two cases out of six was there a real failure of the mother to supply the child with milk, namely in the case of retracted and the case of deformed nipples. In the remaining four, there was a partial failure owing to abscess, which, however, was on the road to becoming a success. A suggestion of failure and a precipitate rush to bottle-feeding was the real cause in this and the other abscess case; inability to bear pain in the remaining two. So a true failure of lactation occurs in two instances only.

General Maternal Disease. (12 cases.) Two cases were of mitral stenosis, in one of which the mother's mismanagement had as much to do with failure as ill-health. At any rate we know that she surreptitiously gave the child beer. In the other case weaning was carried out by the doctor's orders, and there was no failure of secretion.

A severe dental abscess caused a sudden failure of breast-feeding in one case. This mother was a bad manager, however, who was always desirous of introducing artificial feeding, and she made no attempt to re-establish. Of more general causes we find a feeble mother unable to bring up twins without supplementing; a primipara of 36 also having to supplement, and a worn out mother of ten children doing the same. I include also three cases under this heading in which an actual shortage of food was pretty certainly the cause of complete or partial failure. There were two more in which the mother ascribed it to shock or worry. How much was due to a real failure of breast-milk, and how much to lack of attention to feeding at a time of distraction I cannot say, but I suspect the latter as the more important cause.

There remains one case of a mother who worked at an unhealthy occupation. Soon after she returned to work, the child's weight steadily refused to rise until it was taken off the breast. Test-feeds showed an ample quantity of milk; so it was quality and not quantity that was lacking. (This mother has now given up work and is breast feeding a second child with perfect success.)

Of these 12 cases, there was a failure, complete or partial, to breast-feed in seven which can be attributed to a genuine inadequacy of milk, three being due to poor health of mother, three to insufficient food and one to unhealthy occupation. In five it can be attributed to lack of proper attention or management as well.
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Thus out of these 20 cases of failure owing to Disease of Mother, there are only 9 which could not have been avoided, being genuine cases of failure of lactation. They comprise:

- Deformed or Retracted Nipples .......... 2
- Poor Health of Mother .................. 3
- Insufficient Food ........................ 3
- Unhealthy Occupation ................... 1

Pain, ignorance, superstition, lack of attention and mismanagement made up the rest.

Age Incidence. The average age at which weaning took place in these nine cases was $8\frac{1}{2}$ weeks, those in which disease of the breast was the cause occurring very early; those in which poor general health, poverty and other such adverse conditions were the cause, dragging on to from 14—20 weeks. There are thus two different age averages. Where there is deformity or disease of breast or nipple, there is failure of suction and disappearance of milk which occurs early. Where there are general adverse conditions working against a free secretion of milk, but no interference with the suction-stimulus, disappearance is quite late.

B.—Disease of Child.

(38 cases or 33.1%). These are divisible into (i) Local causes in the mouth; (ii) Feeble power of suction; (iii) Respiratory and (iv) Alimentary Diseases, (v) Nervous unrest.

(i) Local Causes in Mouth. (4 cases.) All were the same, namely, hair-lip and cleft-palate. A child with such a deformity is quite unable to suck and although the breast-milk can be drawn off and given by spoon for a while, yet in the absence of the proper stimulus it is bound to fail in time. Where there is cleft-palate only, the outlook is better, since the fitting of an obturator may enable the child to suck, and we once succeeded in effecting complete re-establishment by this means. "Thrush" and other local conditions were not serious enough to cause any failures.

(ii) Feeble Power of Suction. (8 cases.) Prematurity caused total loss of breast-milk in one case and partial in another, through the failure of the infant to draw the breast well enough. Three wretchedly puny children of syphilitic mothers failed in the same way. Mongolism accompanied by emaciation and atelectasis caused a partial failure, also only attributable to feeble suction: there was abundant milk at first.

(iii) Respiratory Disease. (5 cases.) Much the most frequent is the nasal catarrh that is so common in infants, which, if allowed to run on unchecked, leads to a nasal obstruction. A child who cannot breathe through his nose is in a very difficult position when he comes to take the breast. The normal method of feeding consists of a series of sucking actions with the lips closed tightly round the nipple, respiration being carried on quietly and evenly through the nose. If the nose is blocked, the child has to pause every few seconds to take a breath through his mouth, often not wholly letting go of the nipple while he does so. The result is aerophagy. A great deal of air finds its way...
through the open mouth into the stomach as well as milk. The effects of this may be seen by X-raying the child's stomach a few minutes after the meal.

Fig. 1.—Radiogram of stomach of infant with nasal obstruction taken five minutes after a feed stomach is distended with swallowed air.

The appearance of the stomach 5 minutes after a feed in a case of nasal obstruction is shown. The organ is distended with air, which is even passing on into the duodenum. Eructation of the swallowed air further interferes with suction; appetite is lessened; with lessened stimulus there is lessened supply and the amount taken tends gradually to decrease. If the child is resentful of these difficulties, and struggles or screams at the breast, the feeding becomes more and more difficult and finally there may be definite refusal to take the breast at all.

Other dyspnoeas such as bronchitis or pneumonia, may cause interference with suction. But it is a fact, I think, that the breast-milk is seldom lost through them, so long as the child is not separated from its mother. None came under our observation.
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(iv) *Alimentary Disease.* We found none that caused a failure of breast-feeding, except the rare case of Duodenal Atresia where the child was separated from its mother by being taken into Hospital. This is included under External Causes.

*Age Incidence.* The average age at which weaning took place was only 4 weeks. Those in which the cause was local in the mouth occurred at birth. Of the others, all but one occurred within six weeks.

In all these 17 cases the failure of breast-milk was believed to be genuine, and to be caused by interference with the normal stimulus of the child’s suction. Whether it was due to deformity, to dyspnœa, or to mere feebleness, the result was the same; and the disappearance was always early. This corresponds to what we already saw in the case of deformities or diseases of breast and nipple, in which the stimulus of suction also fails, and the milk “goes” early. To look at the matter in another way; where the milk “goes” in the first few weeks, it is lack of suction that is responsible. And this may be produced by deformity or disease in the apparatus of suction by dyspnœa, or by an enfeebled condition in the child. But it is not due to any ill-health in the mother. This, if it occurs at all, occurs later.

(v) *Nervous Unrest.* (21 cases.) By this condition we understand the numerous cases in which the child is in a state of anxiety and unrest. In all our cases it was observed that the mother as well as the child was disturbed. In no case was there any difficulty when the mother remained entirely placid. The child of a stolidly unemotional mother may cry it is true, from whatever cause; but his method of feeding is not interfered with. But with a nervous mother the matter is entirely different. Directly there is the slightest upset she begins to worry, and the child is quick to appreciate her anxiety. Instead of a soothing influence he feels a disturbing one: instead of a quiet confidence, there is irritability or timidity. He quickly shows his resentment of his uncongenial environment, generally by passionate fits of screaming. Dyspepsia and difficulty in feeding soon follow. Very often the mother with a desperate desire to improve things makes grave mistakes in management, such as the introduction of artificial feeding by a bottle, or a recourse to too frequent breast-feeding in an effort to hush the child. The result of either is likely to increase the dyspepsia. And as the child’s symptoms grow worse, the maternal anxiety increases too, to which again the child reacts still further by screaming, dyspepsia, sleeplessness and failure to gain weight. Finally both become completely worn out, a climax is reached and the desire to do something to put an end to it all becomes urgent. Unfortunately, that something is frequently the removal of the child from the breast. The difficulty in getting him to take it properly and the commonly coincident dyspepsia, combined perhaps with the kind advice of friends and relatives, induce the idea that it is something the matter with the milk that is responsible for it all. So the breast-milk, already dwindling, is allowed to go, and a bottle is substituted. The effect is often dramatic. Belief in the success of her experiment restores the mother’s confidence, and thereby also the child’s good humour. The bottle is easier
to administer, and the child enjoys the steady flow of milk. Very often the screaming ceases and calm pervades the household. But peace has been bought at a price, the loss of the only food that is really adapted to the child's needs and his digestive powers.

These cases begin in one or the other of two ways. In one the anxiety comes first and the dyspepsia is only secondary. The mothers in this kind are generally young, primiparae, devoted to their child, "good mothers" in fact, and they err through too much solicitude. (In one case, however, we believed that it was not an over-zealous care at all, but an irritable temper that was at the root of it. This child was the third, and it seemed from the mother's way of handling it that it was more an exasperation than a blessing.) However, the sequence of events is the same, namely nervous unrest, dyspepsia, increased unrest, increased dyspepsia, failure of breast. In the other kind the mother begins by making some grave mistake in management, then follow dyspepsia, anxiety, unrest, aggravation of dyspepsia, and finally failure of the breast. There is a difference of practical importance in the two, since the second type is easier to treat; for if proper feeding is insisted on, the dyspepsia clears up, and with it the unrest. For the first, much more than this is needed.

The actual causes of the despepsias are, I believe, twofold. The first is the stimulation of the movements of the intestines by emotion, and the second is the mechanical derangement of the gastric functions by disordered suction. The effects of the emotions of anxiety and distress on the gut are the same in a child as in an adult, namely, increased peristalsis, and more frequent and copious evacuation of the bowels. The faeces of the over-stimulated, nervous child are apt to be more watery, bulkier and passed more often than those of the normal. This may give rise to the idea that the child is dyspeptic from overfeeding, whereas this may not really be the case. Indeed, irritable children actually require more food than placid children of equal bulk, on account of their continued muscular activity.

The effect of the disordered suction is that the child swallows a great quantity of air. In normal feeding the action of sucking is steady and rhythmical, but in the nervous infant it is rapid, irregular, and always liable to interruption. Moreover, he is always in a hurry, and attempts to gulp down his meal with violent and more or less inco-ordinate acts of suction. Very soon he has distended his stomach and refuses to take more, and perhaps begins to cry. Attempts to feed further are either resisted or result in further swallowing of air, and so a formidable obstacle to successful breast-feeding is produced. Naturally the mother attributes it all to defects in the breast-milk. But the reality of it can easily be shown by radiographic examination of the stomach. Where a child feeds normally the stomach is practically empty of gas, and even during the meal only contains a small bubble. The figure shows the stomach in cases of nervous unrest 5 minutes after a feed. An enormous gas bubble is seen occupying the stomach, and some of the gas is even passing on into the duodenum. Of course, this gas in the stomach is afterwards regurgitated; but when the large quantity of it distending the stomach is presented to us
pictorially, we can easily see how great must be the difficulty the child has in feeding.

Fig. 2.—Radiogram of stomach of nervous infant taken five minutes after feed: stomach is distended with swallowed air.

Nervous unrest, therefore, presents itself to us as a condition in which besides a great deal of mismanagement, there is an actual mechanical derangement of the gastric function, which in its turn produces such a dyspepsia and loss of appetite that suction is seriously interfered with. It is therefore included among Diseases of the Child, with failure of the suction-stimulus as the actual decisive factor in the failure of the breast-milk.

Age Incidence. The average age at which weaning occurred was 11 weeks, varying from 8 up to 19 weeks. This seems rather later than experience would suggest. But the explanation is that these mothers were mostly heroic souls who tried hard for weeks to unravel the tangle of screaming and dyspepsia. The feeble ones who gave up early, did not attend regularly and so were lost to observation and not recorded.
ARCHIVES OF DISEASE IN CHILDHOOD

ANALYSIS.

Still keeping the cases divided into Controlled and Uncontrolled we can now show how many cases there are out of 115 in which the loss of breast-milk was a true failure of lactation, in how many it was not a true failure though controlled; and again in how many it was due to uncontrolled factors such as accident or mismanagement.

A. Controlled—True Failures of Lactation.

47 cases, or 40.9%

Due to Disease of Child ............... 17 cases
Due to Nervous Unrest ............... 21 ..
Due to Disease of Breast or Nipple ... 2 ..
Due to General Maternal Ill-health ... 7 ..

One fact stands out clearly here: it is failure of the suction-apparatus that is the commonest fault. In all the 17 due to disease of the child this was the cause. So also in the 2 of retracted and deformed nipples. Then again diseases of the child are a commoner cause than disease of the mother. Mothers will repeat over and over again that it is their poor health that is responsible for their failure to nurse their babies. But it is, in fact, quite an uncommon event for the milk to fail for this reason: only in 7 out of 115 in this series. But the reverse is well known to hold good: namely, that the breast-milk will persist in spite of cachexias like anaemia, or severe infections like scarlet fever, or deadly disease like cancer. One is tempted to suppose that this is a device of nature, mindful ever of the future generation.

B. Controlled—Not True Failures of Lactation. (11 cases, 9.5%) comprising:—

Maternal Diseases ....................... 11 cases.

Most of the total number of Maternal cases were seen not to be true failures of lactation on examination. They were mostly the result of some mismanagement, or of the pain of a cracked nipple.

C. Uncontrolled—Not True Failures of Lactation. (56 cases, 48.7%), comprising:—

Mismanagement .......................... 27 cases
External Causes ........................ 30 ..

These constitute practically half the total, and there is not a single one where normal breast-feeding could not have taken place.

D. Uncontrolled—True Failure of Lactation. (1 case, 9%), namely, where the mother died.

The figures are too small for percentages to be of any statistical value, but they serve to give an idea of how small is the proportion of true failures out of the whole.
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Conclusions.

1. A true failure of lactation is a relatively uncommon event. It occurs in less than half of all cases seen. It is due to abnormality or disease in either mother or child.

2. Disease of the child is the more important of the two causes of true failure. It occurs in the first few weeks of life, and this teaches us that where the breast fails early, we should examine the child first for the cause of the failure.

3. Interference with the suction-stimulus is the important basis of the failure of lactation. Disease of the suction-apparatus is therefore the usual underlying cause, either in the child’s mouth, or his nose or respiratory system, or in the nipple or breast itself. There are a few cases also in which the child was too feeble to suck properly, either from prematurity or inherited disease or similar cause.

4. Maternal ill-health is a much less effective cause of true failure of lactation. It is widely stressed in books, it is obtrusively advertised on the hoarding by the proprietors of patent foods, and it is firmly believed in by the mothers themselves. But in reality it is rare. Exhaustion, starvation and unhealthy occupation comprise our seven cases. And how often do these conditions remain to-day? Not often. And even when they do, more often than not the breasts still continue to secrete normally, I believe. It would be worth a little propaganda to implant firmly into the feminine mind that the mother’s health has little to do with breast-feeding and that the child’s is the all-important question. If the breast-feeding is not satisfactory, it is on the child that attention should be focussed. If the mother fails to carry out her functions, and then blames her own health, the chances are that it is her own fault that she failed.

5. Nervous unrest is a very common cause of failure. Interference with suction is shown to be the basis of failure. Mismanagement in the first place, however, is partly responsible. It is lack of experience in handling children, misunderstanding the functions of a mother, lack of insight into a child’s need for rest and quiet, perpetual worry and fussing that often start the unrest. All these are faults that sound advice and education ought to eradicate. Then the interference with the suction-stimulus would not arise. There is also a miscellaneous collection of cases in which some disease or ill-health of the mother was the starting point, but in them the breast-milk ought to have been recovered or never lost, if they had been properly managed (at least, in our opinion). With better training of the mothers and more opportunities for continued and systematic observation, the numbers of failures in these conditions would have been much fewer. In nervous unrest, it is more education in the management of infants that is wanted to reduce the number of failures.

6. Practically half the cases of failure to breast-feed are not due to a failure of the function at all, but simply to mismanagement or to the interference of some outside influence. Or to look at it another way, even in a Welfare Centre where a special effort is made to secure breast-feeding half the
cases of failure to breast-feed need never have arisen, and contain no obstacle to recovery except ignorance, prejudice, interference and similar causes. In practically all those again breast-feeding would have gone on normally if the friendly cow or the tin of condensed milk had not been at hand.

7. We are left then with the conclusion that half the cases need not have arisen, and that well under half are genuine. If we regard nervous unrest as a condition that ought to be overcome, then only a quarter appear inevitable. We should, therefore, always try to insist on breast-feeding. In nearly every case it can be done, if only we can give it time and trouble enough. No mother should be encouraged for an instant to believe that she could ever be likely to fail with it, except because of a cleft palate in the child, or some such palpable defect. No interference with it by supplementary feeding should be allowed except on the advice of those who understand the manifold dangers of such interference. Even then it should not be undertaken unless it is known to be absolutely necessary, by investigation, and should be controlled when instituted by further investigation with a view to subsequent abolition if possible. It might seem almost superfluous to say this, if one did not know how seldom it is carried out. How often, for instance, does one come upon children whose mothers have been light-heartedly advised to give them a bottle merely because of some slight deflection of the weight-curve or other trivial reason, or have been told that they are "not strong enough" to feed the child, or that their "milk does not agree," when all the time the child is suffering from dyspepsia from being grossly overfed! All such harmful ideas are without foundation in almost every case, and they should be obliterated from the maternal mind. Instead the idea should be inculcated that breast-feeding is easy if a very few simple rules are carried out, and that it hardly ever fails; and further that artificial feeding should only be undertaken with reluctance and under strong compulsion.

8. Finally, where cases of difficulty in breast-feeding are likely to occur, there should be opportunities for manifold test-feeding, and, if possible, for observation during and between the feeds.
The Infantile Factor in Failure of Breast Feeding

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