

increasing in audibility, was heard along the left edge of the sternum, having a roughness which suggested extra-cardial friction.

Upper Berkeley-street, W.

INFANT MORTALITY.¹

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INFANTILE mortality has been the subject of much investigation recently, and many factors have been blamed for the high death-rate which prevails in many of our cities. It has roused the attention not only of the medical profession but also of laymen, and much work has been done, and much time and money have been spent in trying to deal with it. It will be my endeavour to put the facts as shortly as possible, and to try to come to some conclusion as to the methods we ought to employ to wipe out this blot on our civilisation.

For the purposes of this paper I am limiting the term "infantile mortality" and intend it to refer only to the deaths of infants (up to the age of one year) *born healthy*, and that death is not due to any special cause or disease—e.g., the infectious fevers, pneumonia, meningitis, &c. In short, it refers to infants who could and should have grown up healthy and have never been given a chance to live. The primary cause of death in these cases is neglect or ignorance, or both, on the part of the parents. The former is either wilful or due to circumstances; the latter is universal.

Wilful neglect and ignorance can be, and ought to be, dealt with, but neglect due to circumstances is the most important and most difficult problem. Various societies, such as the Guild of Help, &c., are trying to deal with this latter question, but it is doubtful whether their efforts are in the right direction. The tendency of the day is *not* to teach the people that they have certain responsibilities towards their children, but to take that responsibility away from them. A great factor, too, is the increase of woman labour. If a married woman has to work she cannot look after her children properly and is certainly no fit person to feed and attend to an infant. This leads to the question of putting infants out to nurse—in my opinion an almost criminal procedure. My experience at the Children's Hospital teaches me that a large proportion of these wasting babies are those who have been "put out to nurse."

The other primary cause of death—i.e., ignorance—can only be described as amazing. This refers chiefly to feeding, and no one who had not himself heard the statements made by mothers would believe that they could display such ignorance as to the requirements of an infant. The prevailing idea seems to be that anything *but* breast milk is good enough to feed an infant on, and for this we have to thank the advertisements of patent foods. Even our own profession, I regret to say, has been led away. So many mothers bring their children to me with the story that their medical man advised them to try some patent food because their own milk was not agreeing with the baby that I cannot believe they are all lying. Just as we are allowing the art of prescribing to pass into the hands of the manufacturing chemists, so we have been allowing the management of infant feeding to pass into the hands of the patent food vendors, but I have great hopes that in the latter case, at any rate, their reign is at an end. During the last year I have noticed a considerable increase in the number of cases fed on milk and barley-water, and for this I am sure we have to thank the lady inspectors.

Many years ago there was an outcry because it became fashionable for mothers not to nurse their babies but to feed them artificially, and to this was ascribed the great increase of infantile mortality; but at that time the fashion was chiefly amongst the well-to-do, amongst whom the infant mortality was comparatively very low, and it is now a well-established fact that infants can be reared artificially with a very low mortality if only proper care and attention be given to them. The truth is, that amongst the poor many

women nowadays have not sufficient milk to nurse their babies, and when we come to consider the conditions under which they live, the scanty nourishment they themselves get, and the amount of work they do, this is not surprising.

I will now briefly review the various methods which have been employed to remedy this state of affairs. To begin with, we tried milk modified in every conceivable way: diluted, with various kinds of fluids and in varying quantities, undiluted, boiled, sterilised, Pasteurised, "humanised," peptonised, goat's milk, buttermilk, whey, &c.; and we have even gone so far as to put various drugs into the milk, such as sodium citrate. It is curious and interesting to note how different observers in different countries have obtained equally good results with any and every variety of milk. This is very important, as pointing to the fact that it cannot be the quality of the food *alone* which causes the great infant mortality, and that a great deal depends on the proper care and attention bestowed on the child and on the feeding of it, since it is, with reason, to be assumed that each observer, whilst trying his own particular kind of food, has taken care that the child should have every possible attention in every direction. Then we were flooded with the patent foods which I need not mention by name; and then came the modification of milk on scientific principles from America, which consists in prescribing the milk, or, in other words, in ordering the different ingredients to be made up for each infant exactly as one orders a medicine. And, lastly, various societies, such as the Guild of Help and the "Babies Welcome," have taken the matter up and are trying to teach the people how to look after and to feed their infants. The point I wish to emphasize is that all these methods are bad, inasmuch as they are beginning at the wrong end. Instead of teaching the mothers how they can best prepare themselves to nourish their own children we are teaching them to avoid nourishing them by making it *apparently* so easy for them to feed their infants artificially, and having taught them to do this we are supplying them with dirty milk which has to be cleansed and prepared at great expense, instead of turning our attention to the dairies, and obtaining a pure, clean milk from its very source.

What we have to do now is to set about undoing all the harm that has been done and to commence at the very beginning again. I am quite aware of the difficulties of the task to be undertaken, and I know that it will take many years before we can show any marked results. It will cost a huge sum both to the State and to the municipality, but in the end we shall be the gainers. I would suggest that the work should be undertaken somewhat on the following lines:—

1. Institute a thorough system of education for those about to become mothers. This should consist in teaching them how to prepare themselves for motherhood and in instructing them in the art of cleanliness and in the general management and feeding of infants. They should be taught that the proper nourishment for an infant is the mother's milk; if that fails, that the only substitute is pure fresh cow's milk, with or without the addition of a certain quantity of water. That infants do not require feeding every hour during the night or every few minutes during the day, or whenever they cry, and that the regular weighing of the infant is the sole guide as to whether it is thriving or not.

2. To pass a law preventing all women about to become mothers from working in a factory or mill, and this should hold good during the whole of their child-bearing period.

3. To institute a system of dairies through which the public can be supplied with pure, fresh milk.

4. That every physician who delivers a child should look upon that child as his patient, and that it should be under his immediate supervision during the whole of its infancy.

5. That the sale of patent infant foods to the public be made illegal. (If physicians would only impress upon the public the harmfulness of these foods this would be unnecessary.)

6. To obtain an efficient army of competent and trained lady inspectors who shall visit every infant each week and immediately report to the physician if the infant does not seem to be thriving.

7. To make it illegal to insure an infant's life.

Meanwhile, we must find means to deal with the wasting babies which are the result of our hopelessly inadequate system. At present we are sadly behind the times in this respect, and those who have been abroad and have seen the

¹ A paper read before the Bradford Medico-Chirurgical Society on March 21st, 1911.

provision made for this class of case must feel a sense of shame that as yet nothing has been done for them in England. I refer, of course, to the nursing hospitals of Paris, Berlin, and Vienna, with their army of wet-nurses. The results obtained at these institutions are little short of marvellous, and I would recommend any who are interested in this subject to read Professor Budin's book, "The Nursing," translated into English by Dr. W. J. Maloney.

Bradford.

Clinical Notes :

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

NOTE ON A CASE OF ADENOIDS ASSOCIATED WITH ALBUMINURIA AND CASTS IN THE URINE :

REMOVAL OF ADENOIDS FOLLOWED BY DISAPPEARANCE OF THE URINARY CHANGES.

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THE patient, a schoolboy, aged 7 years, had always been a delicate boy, continually "catching cold." He had been attended for two attacks of laryngitis during six weeks, and the question of operation for adenoids was under consideration. Family history: father quite healthy; mother has pronounced nasal obstruction with aural changes.

I was called to see the boy on Feb. 1st last, and was told that he had been very restless during the night and had not been taking his food for the last day or two. The urine had been very thick and rather scanty. On examination he was somewhat pale and seemed a little drowsy. There was marked nasal obstruction. No œdema could be detected, and there were no abnormal physical signs in the chest. There was no hypertrophy of the heart, and the pulse was not of high tension (60 beats in one minute); the temperature was normal. The urine was turbid and smoky and on standing gave a thick deposit. Its specific gravity was 1014, and the reaction was acid. On boiling and adding acetic acid there was a little albumin precipitated (a 5-inch column of urine when boiled and allowed to stand 24 hours, gave a deposit of about $\frac{1}{4}$ inch). Microscopical examination of the sediment from the urine showed an enormous number of casts—blood, epithelial, granular, and hyaline—and also renal cells and red blood corpuscles.

The patient was kept in bed and ordered a milk diet. On Feb. 2nd he was rather brighter; urinary changes were slightly less marked. On the 4th he was much brighter and said he felt well. Albumin rather less, but very numerous casts (hyaline, granular, and epithelial). On the 8th, the albumin settled to $\frac{1}{8}$ inch on boiling as before; casts very numerous but not quite so many as at first. The patient now got up. He was kept to a diet of milk, milk puddings, &c., with fruit and bread and butter. By the 13th the general condition was good, but the urine was almost unchanged. On the 20th his general condition was still good. The urine showed a trace of albumin, and the casts (hyaline, granular, and epithelial) were still very numerous. There was, perhaps, a tendency towards a greater proportion of hyaline and a smaller proportion of epithelial casts.

By this time I did not think it would be possible to keep the boy indoors much longer. I advised that the adenoids should be removed, as I then thought that these might be aggravating or prolonging the renal condition, and I felt that any fresh "colds" would be likely to be harmful to the kidneys. On Feb. 22nd, therefore, a large mass of adenoids was removed under chloroform. On the 23rd the patient had passed a good night and felt very well. The parents thought that he was better than before the operation and that the urine was clearer. I could not be certain as to any definite changes in the urine, but was inclined to think there were rather fewer epithelial casts. On the 24th the general condition was very good. The lower eyelids looked thin and dark, and this rather suggested to me that there had been slight œdema which I was unable to detect. The casts were definitely fewer and there was

no albumin. On the 25th there was no albumin; casts were few in number and required careful looking for. On the 27th the urine was of specific gravity 1020 and increased in quantity; no albumin, no casts. On March 2nd the general condition was very good; the urine contained no albumin and no casts. The patient was allowed out of doors. During the next four weeks he remained quite well and has so continued. On March 27th the urine was clear, specific gravity 1020, no albumin, and no casts.

There were two points that especially struck me in this case: 1. The association of a very large number of casts with a quite small quantity of albumin. Apart from microscopical examination, the urine might almost have been passed as normal at a time when there were a great many casts. 2. That very marked improvement set in immediately after removal of the adenoids, so that there was more improvement in three days after the operation than in the three weeks preceding it.

Luton.

NOTE ON A CASE OF FOREIGN BODY IN THE ISCHIO-RECTAL FOSSA RETAINED FOR A YEAR AND A HALF.

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A WOMAN of about 30 years of age, a Hindoo widow, was admitted to the Victoria Zenana Hospital on Feb. 9th, 1911, complaining of a sinus of six months' duration situated in the right ischio-rectal fossa. It was supposed to be a case of fistula in ano, and accordingly chloroform was administered and a director passed into the sinus. The instrument travelled in an upward direction and, with a finger in the rectum, it could be felt to pass behind the bowel and enter a thickening behind the cervix uteri; at the same time there was a thick blood coloured discharge from the vagina. After washing this away a sound was passed into the cervix and could be felt to come in contact with the director. The opening in the right ischio-rectal fossa was then enlarged and the sinus scraped; almost at once a dark object presented at the wound. This was found after removal to be a twig $3\frac{1}{4}$ inches long and a line in diameter, with a small quantity of cotton-wool twisted round one extremity.

The following history was afterwards obtained. A year and a half previously the patient, being three months pregnant, had called in a *dhar* (native midwife) to procure abortion. The *dhar* "treated" her and abortion took place, followed by an illness of a couple of months' duration. The sinus had begun a year later as an irritable pimple, and for six months the patient had been troubled by the constant discharge from it, but had not connected this in any way with the abortion.

The native midwife frequently procures abortion by the introduction of twigs or other small bodies into the uterus, but it is not usual for a foreign body to be retained so long after abortion has occurred. It was evident that the twig had been so introduced that the lower end, which was somewhat pointed, had passed into the cervix and thus had been forced through the cervix by the uterine contractions.

The sinus healed quickly and the patient was discharged five days after admission.

Hyderabad.

EVELINA HOSPITAL FOR SICK CHILDREN.—

Viscount Duncannon, at the annual court of governors of this hospital, in submitting the annual report pointed out with gratification that there had been an appreciable decrease in the cost of patients, which testified to the economy and vigilant supervision exercised by the committee of management. In the course of his address he emphasised the pressing needs of the hospital, urging that it is the only large children's hospital for the whole of South London, is situated in its most destitute district, and is carrying on a beneficent and increasing work in relieving suffering amongst children of the poorest class. There had been a heavy loss, he added, in annual subscriptions during the last few years, and he earnestly appealed for new supporters.