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GAVAGE FEEDING OF INFANTS.

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It is my impression that this is a subject which has been very lightly dealt with, judging from the scarcity of information to be found concerning it in any of the books that deal with methods pertaining to the care of infants. It is difficult to understand why such is the case, since it is a procedure which, in many instances, saves a baby's life.

In connection with gavage feeding, we think first of the premature infant who is too frail to nurse or even to make an effort to swallow, when food is placed in the mouth by a dropper. This infant is best fed by gavage until it gradually becomes vigorous enough to take its food from the bottle or to be nursed at the breast.

The second class is that of the decomposition baby who comes under our care so starved, so emaciated, and so feeble, that he cannot make the effort to take food. In extreme cases it means life to this baby to conserve its strength, so he is fed by gavage, and in a few days' time he has gained so much that when, as a trial experiment, he is offered the bottle, he rewards us by draining every drop and, in his way, asking for more. It is best not to change all at once to the bottle feeding, for it is easy to over estimate the baby's strength, but give it first one bottle a day, then two, and so on until he is entirely off the gavage method of feeding.

The third class is comprised of babies who are acutely ill and persistently refuse food, until the depletion of strength and loss of weight are so great that it becomes necessary to force the food; then, as the baby grows better and its appetite returns, the gavage feeding is discontinued.

The fourth class is made up of the hare-lip and cleft-palate babies. These are all eventually subjected to operation. Even if they are able to take food through a nipple, it is necessary to accustom them to some other method, since the nipple cannot be used after operation until the lip is healed and the tenderness gone. Feeding with a spoon is not satisfactory, because so much of the food is lost; the dropper method is the one most often employed; but in a number of instances it has been found that these babies do not take the feeding without a considerable amount of trouble attending, caused chiefly by the swallowing of air with the food, and the resulting discomfort. This is eliminated by the use of the gavage method.

The fifth and last class is that of the baby who vomits persistently. This vomiting is often associated with pylorospasm, and in this condition lavage of the stomach, followed by gavage, has produced very good results, on the theory that the action of the baby's nursing tends to increase the spasm.

The next thing to be considered is the tech-

nique. The tube used is a No. 12 or 15 F. catheter with a one-ounce cylindrical funnel attached. The baby is restrained, with arms well down at the side, care being faken that they are not twisted back of the body in applying the restraint, thus producing injury. The baby's head is held firmly and the tube, after being moistened, is passed through the mouth. If the baby has teeth, the tube should be anointed with vaseline and passed through the nostril. As long as there is no resistance at all, continue passing the tube, but if there is resistance, wait until the throat relaxes; do not use force. It cannot be stated that the tube should be passed any certain number of inches, but the distance can easily be estimated in each individual case the only danger would be, perhaps, in not passing it far enough.

The question has been asked, " How do I know that the tube is in the baby's stomach?" and the reply has been, "When the stomach contents come up in the tube." This answer holds good in some cases, but in these days, when the fourhour feeding interval is employed, the stomach is usually quite empty, except in cases where there is retention. If we can be sure that the tube has not gone into the baby's trachea, then we can be quite sure that it is in the stomach, so we must determine the first, to our satisfaction. When the tube is being passed, it causes a little irritation, resulting in coughing and crying, in redness and, perhaps, even cyanosis of the face. If this continues after the tube is down for a minute or two, it may be taken as a danger signal. Often when the tube is passed, air will escape and one may be inclined to think it is in the and one may be member to think it is in the trachea instead of the stomach; this can be determined definitely by placing the open end of the funnel in a cup of sterile water. If air continues to come with expiration and if the water is drawn up in the funnel with inspiration, there can scarcely be any doubt but that the tube is in the trachea. With patients who are comatose it is always safer to make this test.

After the tube is down and the baby is quiet, we may proceed. We hold the funnel and control the flow with one hand, leaving the other free to hold the tube in place, if necessary, and to pour the fluid. Cut off the flow while the funnel is being filled, then allow it to run slowly, as too rapid distention of the stomach is not good for the baby. If the food does not flow, it may be because of air in the tube or because a curd or bit of mucus has obstructed the outlet. This may be corrected by making forceful pressure upon the tube between the palm and the fingers. If the baby cries or strains, the food will back-up in the funnel, and it is apt to overflow. If this occurs, pinch off the flow to avoid losing the food. Do not allow the funnel to become empty, as more air is carried in when it is filled again.

In withdrawing the tube, a very important



