

THE TREATMENT OF PREMATURELY BORN INFANTS.

Every one knows how great is the mortality among prematurely born infants, and what special precautions are necessary if any hope of rearing them is to be entertained. The importance of maintaining a comparatively high temperature, and the need of carefully regulating the nourishment have, together with other details of treatment, been well brought forward by other authors, but at present M. TARNIER (*Arch. de Tocologie*, Sept. 1885, p. 819) draws attention to two additional precautions, viz., the use of a "couvense" and "gavage." The former is too well known to need description. In using it he employed a temperature between 30° and 37° Cent. (86° F., 98.6° F.), the average being about 32° Cent. (89.6° F.). It is difficult to lay down any exact rule, but, as a general guide, we may say that the more feeble the infant the higher should the temperature be maintained. Children may be kept in the "couvense" during a period varying from a few days to six weeks. There does not seem to be any danger incurred by withdrawing them for short periods for purposes of cleanliness or of nourishment.

In practising "gavage" he uses an apparatus which is in miniature the same as that employed by Dr. Faucher for adults. It consists simply of a red caoutchouc catheter (size No. 18, Charrière), to the upper end of which is fixed a small glass cup. In employing "gavage" the child is held on the knee of the operator, the head is slightly raised, the catheter is oiled and then introduced as far as the base of the tongue, when the child, by the instinctive movements of deglutition, carries it on to the entrance of the œsophagus; it is now pushed on gently until it has traversed the whole length of the œsophagus. After the catheter has passed a distance of fifteen centimetres (nearly six inches) we may conclude it has reached the stomach; the nourishing liquid is now poured into the glass cup, and soon by its weight penetrates into the stomach, leaving the cup and the catheter empty. In withdrawing the catheter, which should be done after a few seconds, it is useful to do so rapidly, as otherwise the fluid injected follows the catheter and is rejected by regurgitation.

What nourishing fluid is best? M. Tarnier has tried asses' milk either alone or sweetened, or mixed with beef tea, but believes that human milk is preferable to any. How many times in the twenty-four hours ought "gavage" to be employed, and what amount of milk should be administered on each occasion? It is difficult to lay down any definite rules, since much must depend on the age and strength of the infant; but if required to formulate any general rule, he should say, the meals must be more numerous and the amount of milk imbibed must be diminished according as the age of the child is less, and its vital powers more feeble. Eight grammes (123.456 grains) of milk are sufficient for one "gavage" when the child is very small and born considerably before full term. When the "gavages" are in excess, a very curious phenomenon arises, the child rapidly grows in volume and weight, but this is due to a considerable œdema of the whole body. As this œdema rapidly disappears when the supply of nourishment is more limited, he thinks it must be considered as a result of hypernutrition; if the quantity be not diminished, or if it be increased, indigestion sets in, and the child succumbs to gastritis and enteritis.

The infant shown is one of twins, born on June 8th. It remained in the "convalesce" until July 20th. From June 8th to June 12th "gavage" was employed every hour with eight grammes of human milk; from June 12th to July 5th "gavage" was employed every three hours with sixteen grammes of human milk, and in the interval of two feedings milk was allowed to trickle into its mouth; after July 5th the child was able to suck, and "gavage" was discontinued. In some cases the child is too weak to be entirely suckled, and then breast-feeding and "gavage" may be combined; during the early days of "gavage" the child's body weight may decrease, but later it rises again. Two of M. Tarnier's cases were born soon after the one hundred and eightieth day of intrauterine life, and have been successfully reared; he does not altogether despair of rearing premature children, born even before the one hundred and eightieth day, thanks to "gavage" and the "convalesce."

ABDOMINAL AUTOTRANSFUSION IN CASES OF POST-PARTUM CEREBRAL ANÆMIA.

Cases are occasionally met with in which the removal of large masses from the abdominal cavity (e.g., hydrops amnii, twin births, large collections of peritoneal fluid) is followed by extremely alarming symptoms, not uncommonly leading to death from cerebral anæmia. It is probable that in such cases an enormous quantity of blood collects in the abdominal venous system (which we know is capable of very great dilatation), owing to the sudden diminution of the accustomed pressure, and that the disastrous results are due to the consequent anæmia of the brain. Ordinary remedies do not act powerfully enough in such an emergency.

KOPPE (*Centralbl. f. Gyn.*, Sept. 19, 1885), on meeting with a case of this description, tried a new device for restoring the normal distribution of blood, and his experiment was crowned with success. The patient was a primipara, in whom the abdomen was most unusually prominent; the skin over it was extremely stretched, and all the other signs of excessive distention were present. Conjugata vera about 3.2 inches. It was possible to diagnose the presence of twins. During the labor great difficulties were met with: the first child could not be delivered without perforation; the second was smaller in size, and extracted by pulling at the feet. Both placentæ were expelled without much loss of blood, and the uterus contracted well. The labor appeared to be satisfactorily terminated, when suddenly the patient became pale and collapsed; no external hemorrhage had occurred, and the uterus continued well contracted as before. Rupture of the uterus and hemorrhage into the peritoneal cavity seemed out of the question at this stage. The only other supposition was that a large accumulation of blood in the abdominal veins had taken place. The patient's head was lowered and brandy administered, but without effect. On the contrary, the pallor seemed to increase, and the patient appeared beyond hope of recovery. Koppe, at this moment, resolved to try to reapply pressure to the abdominal veins, which, by the emptying of the uterus, were now under much less pressure than before. He used for this purpose a small, soft pillow, which was very firmly pressed down on the abdomen, and bound on. A beneficial change was immediately apparent; the patient regained her color; consciousness returned, and before long she was fully restored. Koppe believes that the cerebral anæmia and