CONGENITAL HYPERTROPHIC PYLORIC STENOSIS.

By Sir William Taylor.

This is a subject in which I have been interested during the past fourteen years when I saw the first case.

It is a curious fact that so few cases of this condition have been seen in this city, but I think the infrequency with which such cases are encountered by the surgeon is probably explainable from the fact that the general practitioner or accoucheur, who is generally first consulted by the mother of the infant, is not familiar with the symptoms produced by the condition, so that it is not recognised.

I have seen only five cases (four were in private patients). Of these four were males and one a female. Each of the cases was seven or eight weeks old, and the symptoms had been present from four to six weeks.

The first symptom appears about two weeks after birth and consists of vomiting—at first once or twice daily. As days pass by the infant begins to vomit after every meal. It takes its feed, whether from the breast or bottle, ravenously; then in a few minutes it begins to cry as if in pain and forcibly vomits the meal. The vomit never seems to contain any bile. The child frequently seems to vomit much more than the amount taken at the feed, thus showing that dilation of the stomach has occurred with retention. The vomiting is projectile and is propelled to as much as a foot or more from the infant’s mouth. Constipation is marked, and the infant loses weight from day to day instead of gaining.

If a feed is given while the child’s abdomen is exposed to a bright light peristalsis will be seen to start from underneath the ribs on the left side—at first mildly, but later forcibly—and to extend across the abdomen in successive waves, thereby outlining the stomach upon the abdominal wall. This peristalsis continues until the stomach contents are forcibly expelled out of the infant’s mouth and nose.

The child’s skin becomes dry and seems to hang in loose folds upon its limbs and body.

Careful palpation of the infant’s abdomen should enable one to detect the pylorus like the terminal phalanx of one’s little finger. It can generally be found above and well to the right of the umbilicus—sometimes as much to the right as the nipple line. An X-ray photograph after a barium meal will demonstrate the condition and form a permanent record of the trouble. To recapitulate briefly the phenomena from which a diagnosis may be made with confidence:

1. Healthy baby thriving and doing well for two or three weeks.
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2. Vomiting, at first once or twice daily soon after a meal, later vomiting after every meal. The vomiting is forcible (propulsive) and never contains any bile.
3. Feeding ravenously.
5. Constipation.
7. Palpation of pylorus.
8. X-ray showing dilation of stomach and pyloric stenosis.

The diagnosis once made, I believe there is but one line of treatment likely to be followed by cure, and that is operation.

There are four operative procedures that may be mentioned in the order of their institution for the treatment of the conditions:

1. Pyloridosis or stretching of the pylorus.
2. Pyloroplasty.
4. The Rammstedt operation.

This last operation is the simplest, the most quickly performed and the operation attended by least shock, while the results are the most satisfactory.

The operation is best performed through a supraumbilical mid-line incision of 2½ inches, through which the index finger is passed and the pylorus hooked up and brought on to the abdominal wall. It is steadied by the thumb and finger of the left hand, and the thickened pylorus is carefully cut through from the stomach towards the duodenum until the mucous membrane bulges freely through the incision.

Care is taken to ensure the complete division of all the hypertrophic tissue, especially that piece which projects into the duodenum like an os uteri. It is very essential to avoid incising the mucous membrane. Should this accident happen, the small opening must be carefully closed by a fine catgut suture and a piece of omentum fixed over it.

Any veins that are divided should be underrun by a needle with a fine catgut suture and ligated.

The divided pylorus is then replaced within the abdomen and the wound closed by three or four through and through silk-worm gut sutures threaded on a piece of fine rubber tubing and carefully adjusted.

During the performance of the operation the infant should be kept as warm as possible—only the necessary part of the abdomen being exposed.

I have no doubt but that the best anaesthetic is gas and oxygen. The entire operation should not take more than seven or eight minutes, and all manipulations should be as gentle as possible.

The subsequent feeding of the infant is a matter of the greatest importance. At first plain water in teaspoonful doses.

Then water and glucose (equal parts) in similar amount every ten or fifteen minutes.