As little credit can be given so far to measures of *immunotherapy* as to those of chemotherapy. And this applies to all the permutations and combinations of antigen and immune serum that the mind of the immunologist—not a mind lacking in fertility and inventiveness—has so far devised. The latest of these is immunotransfusion, which, though it is claimed that this method raises the bactericidal power of the blood, has not so far been more successful than other methods. A method of treatment which raises the bactericidal power of the blood as tested outside the body gives us no guarantee that it will do this inside the body; or, if it does, that the rise in bactericidal power will be sufficient, within the limits of the method, to turn the scale against the infecting agent and in favour of the patient. These things would be very puzzling did we not know of stranger facts—the fact, for example, that, apart from any immunotherapy whatever, the blood in many cases of chronic septic endocarditis is extremely rich in certain antibodies specific to the micro-organism isolated from the patient's circulation. And yet such patients may, all the time, be losing ground slowly but surely.

In opening a discussion upon chronic septic endocarditis at Cambridge in 1920, when speaking of curative treatment, I raised the point as to whether we ought not to deal with these patients on much the same lines as we follow in cases of chronic tuberculosis, bearing in mind, of course, the difference in the organs affected. I have of late years concentrated more and more upon non-specific measures, as for a disease of "low resistance." I treat as many cases as possible in the open air, with sunlight, natural and artificial. I supplement this by a long series of intravenous and intramuscular injections of sodium cacodylate. Sometimes I have found, as others have, that simple transfusions of blood are of considerable help. These are the only measures I yet know of that seem to give the patients the best chance of overcoming their usually intractable infection.

It remains for me to thank you, Sir, and the Fellows, for your patience in giving me your attention during the delivery of these lectures.

CHRONIC PYLORIC OR DUODENAL ULCER: POSTERIOR GASTRO-JEJUNOSTOMY WITH JEJUNO- JEJUNOSTOMY.

BY

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THE operation of a no-loop posterior gastro-jejunostomy has had a long trial, and, although the ulcer heals, the after-history of these patients, as regards well-being and comfort, is in a very large number of cases unsatisfactory.

A-C' = 3½ in.; A-A = 3 in.;
B-B = 2½ in.; C-C' = 1½ in.;
P-V = 3½ in.

The new pylorus is at A,A, and the dotted line along the duodenum from Vater's ampulla (V) to the jejunal opening at C,C' shows the course of the secretions from liver and pancreas to join the food stream issuing from the stomach at A,A. The two tubes of jejunum, marked by

THE MAKING OF A NEW PYLORUS.

A modification of this operation¹ is jejun-jejunostomy, done at the same time as the posterior gastro-jejunostomy so as to ensure the making of a new pylorus, by which the *status quo ante* as regards the physiology of the parts concerned is brought about.

The illustration represents a horizontal section of stomach and bowel after the operation is completed; for clearness' sake the gastro-colic oval omental attachment is not indicated.

arrows, function at the first part of the duodenum. C' is at a point 3½ in. below the new pylorus (A,A), which is the precise distance that the normal Vater's opening (V) is situated from the normal pylorus (P). A 10-inch loop of proximal jejunum, brought to the surface, gives enough bowel to work with, and no kinking ensues. The extra time required for the second anastomosis is only some fifteen minutes.

In effect, the whole physiological plan of the pylorus and the duodenal exit of the digestive fluids is simply removed some inches to the left. The gastric anastomosis is 3 inches and the jejuno-jejunal 1½ inches long. The patients enjoy very good health afterwards, with no unpleasant after-effects.

I have just learnt that one of the surgeons of the Mayo Clinic has begun to do this operation and intends to report his results.

REFERENCE.

¹ *Lancet*, January 31st, 1920; *Practitioner*, June, 1920; *Epitome, New York Medical Journal*, 1920.

GANGRENE IN AN INFANT SEVEN DAYS OLD: RECOVERY.*

BY

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A PRIMIPARA, aged 33, who had had no miscarriages and been married two years, was, on January 30th, 1925, confined naturally, after an easy labour of six hours, of a female child. On the morning of February 5th the child's right leg was found blue from the knee downwards. The cord had separated the day before, and the umbilicus was a perfectly clean scar without redness; there was no rise of temperature, and the heart appeared normal. There seemed little pain, only a slight whimpering when the limb was handled. The leg was kept warm in cotton-wool, and the blueness gradually decreased downwards, until in about ten days there was a line of demarcation straight across the dorsum of the foot at the base of the toes, but on the sole of the foot it extended in a triangle nearly to the point of the heel. This gangrenous area was dry. It was decided to leave events to Nature, but, with the experience of gangrene in the old, the parents were told to expect a weary waiting of months for the separation of the slough. The mother was unable to nurse the child, but on undiluted milk it thrived apace, so that in each week from the beginning there was a gain in weight. On March 18th I was amazed to hear that the toes had separated, the factor of the child's growth away from the dead part never having entered my head. Within three weeks afterwards, very little more than two months from the onset, the foot was completely healed, the triangle on the sole of the foot having been only skin.

An attempt to get a photograph in the gangrenous stage failed from movement, an indoors time exposure being necessary. But the accompanying illustration in the healed state, when the child was 7 months old, shows the want of toes and the ridge on the sole of the foot. The separated toes have been placed in the Pathological Museum, Cambridge.

It is almost certain that the gangrene was due to an embolus caught at the bifurcation of the anterior and posterior tibial arteries, and that the circulation was re-established except in the toes and sole of the foot.

As to the origin of this embolus there must be some doubt; it is possible that it came from the umbilical veins, by way of the ductus venosus, inferior vena cava, and the right auricle, thence either through a patent foramen ovale, or into the pulmonary artery and by the ductus arteriosus

* A paper read before the Cambridge Medical Society, October, 1925.