

to be making no progress. The pains were very feeble and seemed to have scarcely any effect on the dilatation. I ruptured the membranes, and the pains increased enough to dilate the os to about three inches, and then there was no further progress. The pelvis was roomy, the child's head was small and there was no rigidity of the cervix, but still the head refused to descend. I applied the forceps and, though the traction used was very slight, the head came down without the least difficulty and delivery was soon accomplished. I think I have never used such a small amount of traction in a forceps delivery.

Though my obstetric practice is not large, there is a steady increase, which shows that the Chinese here are beginning to realize the value of foreign methods in this branch of medicine. In looking over my records I find that in about ten years of hospital work here there have been 14 forceps deliveries, 4 craniotomies, 2 transverse presentations, 1 cephalic version, 1 podalic version and 1 premature labor for hyperemesis gravidarum.

During 1906 I had 12 cases, more than in any previous year. Several were in wealthy, influential families.

China is making rapid strides toward civilization, and Western medical science is destined to be an important factor in the process. A large number of medical books have been translated into Chinese by medical missionaries and more are constantly being translated. There are several medical schools in China, and we hope to see a medical magazine in Chinese established at no very distant date.

#### LIGATION OF THE BLEEDING VESSEL IN THE HEMORRHAGE FROM DUODENAL ULCER.

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In view of the present diversity of opinion concerning the advisability of direct ligation of the bleeding vessel in ulcer of the stomach and duodenum, the following case is reported:

*Patient.*—Mrs. F., aged 26, was seen in consultation with Dr. W. N. Humphrey, Oct. 8, 1906.

*History.*—She had been married eleven years and had one miscarriage at third month; no children. Her general health was good until three years ago, when pain began in the right side of the chest radiating to the back. It was more or less constant and always greater after eating. Some foods caused more distress than others. There was vomiting at irregular intervals, and she was usually worse before the menstrual periods. The patient never vomited blood until Oct. 2, 1906, when a very severe hemorrhage occurred. This was quickly followed by a second and third attack on the same day. On October 3 another severe hemorrhage occurred and a large quantity of blood was passed from the bowels. No further bleeding from the stomach occurred until October 8, although blood continued to be present in the bowel movements during this interval. In the afternoon of October 8 another hemorrhage occurred. At this time I was called and found the patient's condition to be critical, as denoted by a rapid pulse and extreme pallor. All treatment, medicinal and otherwise, having been administered without any effect on the hemorrhage, operation was advised. Early the following morning, before being removed to the hospital, another hemorrhage occurred, leaving her in such serious condition that the ambulance surgeon feared to convey her to the hospital. The picture presented on admission was one seen in cases of extreme hemorrhage: Pulse weak and rapid, extremities cold, mucous membranes blanched. The continuation of medicinal treatment seemed unwise. For the following twenty-four hours the woman was stimulated and given injections of normal salt solution. At the end of this time her condition was somewhat improved, and in view of the persistently recurring hemorrhages, ligation of the bleeding vessel seemed the only safe treatment.

*Operation.*—On October 10, under light ether anesthesia administered by Dr. Stuart, an incision was made in the median line. Careful examination of the external surface of the stomach and duodenum failed to reveal the location of the ulcer. The stomach was then opened by an incision through the anterior wall at the pyloric end. An ulcer was found in the duodenum just below the pyloric ring. It was of the mucous variety and was situated so close to the ring that external palpation did not reveal its location. The ulcer was transfixed and ligated with catgut and the peritoneal surface reinforced by mattress sutures. The opening into the stomach was closed and a posterior gastroenterostomy with no loop was performed. It was necessary to administer considerable stimulation throughout the operation, but the patient rallied well and made a good recovery. There has been no further hemorrhage and she is now free from pain and eats everything without distress.

The diagnosis as to the definite location of the ulcer was uncertain. While large quantities of blood coming through the bowel and the peculiar location of pain seemed to point to an ulcer of the duodenum, yet it seemed somewhat doubtful that such large quantities of fresh blood would pass backward so quickly into the stomach. It was evident, however, that it was located near the pylorus. The indications for treatment remained the same in either case.

#### A CONVENIENT METHOD OF OBTAINING CLUMP-FREE EMULSION FOR OPSONIC WORK.

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While studying the specificity of opsonins last summer in Professor Wright's laboratory I sought for a method of quickly separating organisms from the liquid in which they are suspended, centrifugating alone requiring from thirty minutes to one hour. The following device was used with splendid success: A constriction (A) is made in a piece of small-caliber glass tubing; the tubing is then bent on itself (B), terminating in an opening (C). Moist filter paper fiber (D) (conveniently made by scraping filter paper with the edge of a knife) is placed against the constriction and packed firmly. Into the long arm is placed the liquid (E) to be filtered and the device is placed in the centrifuge.



Working with staphylococci, I obtained practically bacteria-free filtrates (F) in ten to fifteen minutes from thick suspensions of staphylococci in normal sera. The filtrates showed scarcely any opsonin, and stained specimens practically no organisms. Similar centrifuge-filtration of tubercle bacilli required but eight to ten minutes, since the fiber need not be packed so firmly.

The device, however, has a more practical application. When a bacterial emulsion presents many clumps which resist ordinary mechanical means of division a clump-free filtrate may be obtained by this method suitable for opsonic work in twenty or thirty seconds—only a few turns of the centrifuge. If, however, this first filtrate contains clumps it is easily taken from the device by introducing a capillary pipette and again filtering. I find that repeated filtration through loosely-packed fiber is more certain than a single filtration through tightly-packed fiber, since in the latter case the filtrate-emulsion is likely to be too thin. Two or four filtrations may be accomplished in as many minutes.