one of these 12 dogs revealed a typical large stomach ulcer; in one dog there were lesions in the duodenum with multiple hemorrhages and erosions.

Of 18 rabbits, 8 revealed similar findings. Among these perforated ulcer of the stomach was observed in 2 cases.

Macroscopically and microscopically, the pathological lesions produced in the gastrointestinal tract of the animals resemble those seen in human cases.

These findings coincide with the results obtained by Dodds, *et al.*,[1,2] in their observations on the effects of the acetone picric acid extract of the posterior lobe of the pituitary body in monkey, cat, rabbit, guinea pig, rat and mouse.

8537 C

Hematologic Studies on Gastrectomized Monkeys

R. A. BUSSABARGER AND A. C. IVY.

From the Department of Physiology and Pharmacology, Northwestern University Medical School, Chicago, Illinois.

During the course of our studies of the effects of gastrectomy on various species of animals, 8 of a group of 10 *Macacus rhesus* monkeys were gastrectomized, 2 being retained as controls. The age at which gastrectomy was performed could not be ascertained.

After recovery from the operation the same varied diet which included milk, bananas, oranges, apples, boiled potatoes, carrots, peanuts, etc. was fed the gastrectomized and control monkeys. Blood studies consisting of red blood count, hemoglobin (Newcomer), hematocrit and Price-Jones counts were made at frequent intervals. One X-ray film of the bones was made of each monkey.

Our studies showed that after an initial weight loss that lasted for approximately 80 days the gastrectomized monkeys slowly gained in weight to become relatively constant about 240 days after the operation. Five of the 8 gastrectomized monkeys are still alive 606, 396, 356, 347, and 228 days after operation. Three of the 5 have not regained their preoperative weight level, but are apparently in good health. The gastrectomized monkeys had an

[1] Dodds, E. C., Noble, R. L., and Smith, E. R., *The Lancet*, 1934, **2**, 918.

[2] Dodds, E. C., Hills, S. M., Noble, R. L., and Williams, P. C., *The Lancet*, 1935, **1**, 1099.

oligocythemic, hypochromic, normocytic anemia for about 180 days after operation. Two monkeys, more anemic than the others, were each given a 0.1 gm. ampoule of ferric ammonium citrate subcutaneously every other day for one month. Their blood pictures immediately improved markedly and have remained relatively constant. At this time the blood pictures of the gastrectomized and control monkeys are comparable.

TABLE I.

	No. of animals	RBC	Hb	Hemato-crit	Price Jones
Gastrectomized monkeys	5	5,90	12.63	46.0	6.99
Control monkeys	2	6,32	12.94	47.5	6.80

The blood picture for 11 normal monkeys was (Table II):

TABLE II.

Determination	No. of determinations	Mean	Range
Red blood count	24	6,20	(4,72-7,66)
Hemoglobin (Newcomer)	24	12.86	(9.00-17.27)
Hematocrit	24	47.64	(39.0-55.75)
Price-Jones count	23	7.04	(6.79-7.75)

No differences between the bones of the gastrectomized and control monkeys were detected in the X-ray films.

Thus, gastrectomized *Macacus rhesus* monkeys, like the dogs, pigs and rats, do not develop pernicious anemia after gastrectomy, at least, within from 1 to 2 years. However, an iron deficiency anemia, which also appears in dogs, pigs, and rats, may result.

8538 P

Fundusectomy Prevents Post-Operative Jejunal Ulcer

G. B. FAULEY AND A. C. IVY

From the Department of Physiology and Pharmacology, Northwestern University Medical School, Chicago, Illinois.

The irritating action of gastric juice, the nutritional state of the animal and the greater susceptibility of jejunal mucosa to irritation by acid (as compared to duodenal mucosa) are the principal factors concerned in the development of jejunal ulcers in dogs prepared by the Exalto-Mann-Williamson technique. To study