

overlying abdominal organs. If the canal is inactive the food is practically surrounded by water. The intragastric pressure is three or four times greater at the pyloric than at the cardiac end. Circulation of food from pylorus to duodenum and back to stomach through an anastomosis has often been observed without symptoms of the vicious circle, but such symptoms occur when there is a kink in the intestine distal to the anastomosis. Such kinks cannot be straightened by peristaltic activity. Food should be mixed with the secretions poured into the duodenum, thus neutralizing the acid chyme. Food which leaves the stomach by an artificial stoma is not mixed with these secretions. Jejunal ulcers following gastroenterostomy may be due to the presence of inorganic acid where it does not normally occur. An artificial stoma should, therefore, be as near the pylorus as possible, overeating should be avoided, and kinks should be prevented by attaching a narrow band of distal gut to the stomach for several centimetres beyond the stoma, favoring peristalsis. In pyloroplasty the objections to leaving the pylorus open are avoided. Too rapid exit of food through the pylorus is prevented by rhythmic segmentation of the food in the duodenum, replacing the functions of the pylorus, and tending to mix the food with the pancreatic juice and the bile.

LUMBAR PUNCTURE—A CEREBROSPINAL MANOMETER.

In *The Lancet*, April 22nd, 1905, F. C. Eve describes an apparatus by which the pressure of the cerebrospinal fluid can be measured when lumbar puncture is performed. Eve's conclusions are as follows:—

1. The therapeutic effect of lumbar puncture is of considerable value, and its effects are produced as follows: (a) excessive tension is reduced; (b) the brain is washed by fresh fluid secreted in place of that withdrawn; (c) a temporary cerebral hyperæmia is produced by the blood vessels dilating to take the room of the fluid withdrawn until a new supply is secreted, or conversely, a cerebral anæmia due to excessive intracranial pressure may be arrested; and, (d) a substantial change of cerebral environment is produced, of which nature may sometimes be able to take advantage.
2. Lumbar puncture has been performed about sixty times with the author's instrument without any bad effects.
3. Valuable diagnostic information is often afforded: (a) Pink fluid indicates cerebral hæmorrhage, fractured skull (with injury to the dura mater) or severe superficial cerebral laceration (with pia mater); (b) a faint "spider's web" clot after standing several hours points strongly to meningitis; (c) cytological, bacteriological, or inoculation experiments may give the diagnosis; and (d) occlusion of the cerebral