

**Entameba Tetragena in Manila and Saigon.**—E. R. WHITMORE (*Archiv f. Protistenkunde*, 1911, xxiii, 71) reports the study of amebæ from patients in Manila and Saigon. His material included stools from fourteen patients suffering with dysentery and the pus from an amebic liver abscess. The examination of this material revealed the rather surprising fact that only two species of amebæ were present, namely, *Entameba tetragena* and the non-pathogenic *Entameba coli*. Not a single example of *Entameba histolytica* was seen. It is evident, therefore, that in Manila and Saigon, *Entameba tetragena* assumes added importance as a cause of dysentery. Indeed, Whitmore believes that for these localities this is the usual causative factor in amebic dysentery, while *Entameba histolytica* is rather exceptional. Cultures taken from water showed only free-living amebæ, quite distinct from the parasitic varieties.

## SURGERY

ONCEER THE CHARGE OF

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**The Employment of Novo-iodine in Surgical Tuberculosis.**—DRACHTER (*Zentralbl. f. Chir.*, 1911, xxxviii, 1145) says that of the many substitutes for iodoform, as aristol, etc., none has seriously contended with it. The chief objections to iodoform are its offensive odor and toxicity. It often produces irritation of the skin and mucous membrane, which is not always limited to the site of application, but is found in other parts of the body also. Drachter has been trying out novo-iodine. Its chemical name is hexamethylenen, and its formula is,  $C_6H_{12}N_4I_2$ . It is mixed with equal parts of talcum. When it comes in contact with organic tissues, it is split up into iodine and formaldehyde. According to Schattnerfroh, novo-iodine in the blood serum, pus, and physiological saline solution, in the strength of 1 to 1000, possesses a strong antibactericidal power, considerably stronger than that of iodoform or any of its substitutes. Drachter has employed it mostly in tuberculous diseases of the bones and joints, tuberculous caries of the ribs and sternum, spina ventosa, caries of the foot and hand bones, of the skull, vertebrae, and pelvis. He has also used it extensively in tuberculous affections of the soft tissues, especially in fistula and abscesses, as from the hip-, knee-, elbow-, and foot-joints. In open tuberculous conditions with suppuration it reduces the secre-

tion markedly, and favors the formation of red, fresh, and sound granulations. Large tuberculous cavities were filled with the novo-iodine suspension, so that it found its way into all angles; or they were packed with novo-iodine gauze or with ordinary aseptic gauze soaked in the novo-iodine suspension. A reduction of the discharges was observed to follow almost without exception. An especial advantage is that it is entirely without odor and, in addition, is markedly deodorizing, which effect is to be attributed to the formaldehyde which it contains. It has been employed as a deodorant with good effect in gangrenous appendicitis. It is completely non-irritating and non-toxic, and for this reason can be applied to the tender skin of a very young child. In animal experiments on rabbits, doses of 1 gram per animal kilogram were borne without difficulty. Its application caused no noteworthy pain. It was not applied to mucous membranes.

**The Use of a Tubular Speculum in Peritonitis.**—KULN (*Zentralbl. f. Chir.*, 1911, xxxviii, 1177) says that he has been employing for years short and long specula, like those used in the vagina and rectum, in the treatment of suppurative peritonitis. When a diffused inflammation is suspected, and a fluid exudate is supposed to be present, he makes a small incision in the abdominal wall, large enough to admit the speculum, and over some region still free from the inflammation. The speculum, provided with an obturator, is carefully introduced through the abdominal wound, which is then closed around it. It is then pressed inward slowly and carefully. Soon he removes the obturator, wipes out the tube with a pad on a long handle, and thus finds the way for deeper pushing of the obturator and speculum. By means of a good light he obtains a good inspection in the depth of the abdominal cavity, as in the pelvis or behind the stomach. The condition of the coils of the intestine can be determined, the state of their walls, and the presence or absence of adhesions or exudate. When he suspects that the exudate is circumscribed, by approaching it from the undisturbed side, he tries not to break into it, but is anxious to preserve it intact. The information thus obtained, and its relation to the prognosis and treatment are important. By this method all angles and pockets and spaces between the intestinal coils can be examined, especially in the deep parts, as the hypochondrium and pelvis. For every new introduction of the speculum, when that already in cannot be passed further, a clean one may be substituted. When, however, he comes on an exudate, Kuln changes the position of the speculum to all parts that he can reach. When he irrigates, he prefers to make a second or third incision, with a speculum in each; although by passing an irrigation tube into a wide speculum, a single opening may be sufficient to carry on the irrigation. When the toilet of the deep parts is completed, a rubber or glass drainage tube is passed through the speculum to the desired part and is left there, the speculum being withdrawn over it. In ten minutes the abdominal cavity can be examined in all directions and provided with drains. In order that the omentum may not slip into the opening of the drainage tube, Kuln often covers it with gauze to protect it from such an accident. He has treated his cases of peritonitis for years in this way. If he suspects the presence of a necrotic appendix, by working from the

less toward the most infected region, this can be removed. If a perforation or suppuration is encountered, the usual methods are adopted to contend with it.

**The Technique of Operative Closure of the Intestine.**—VOECKLER (*Zentrabl. f. Chir.*, 1911, xxxviii, 1179) has been employing for some time the following method of closing the intestine opened by operation, as the duodenum after resection of the pylorus, and after all resections of the intestine, when a side to side anastomosis is to be made. The intestine is first freed from its attachment to the mesentery, and a purse-string suture of catgut, including the serous and muscular coats, is introduced in the circumference of the intestine near the place where it is to be divided. About 1.5 cm. from this suture, somewhat farther in the large intestine, the gut is divided between the blades of an intestinal clamp. A strong silk ligature is employed to close the open end of the intestine beyond where the purse-string suture is placed. This is tied with a slip knot so arranged that when the now closed end is inverted and the purse-string suture tied, by holding the end of the intestine with the finger and thumb of one hand and making a tug on the silk ligature it will unloosen at the slip knot and come out. As this is being done the purse string is being held ready to be tied as soon as the silk ligature is removed. After double knotting, the purse-string suture is cut short, and may then be covered over by a Lembert suture. The advantages of this method are as follows: No closed space is left at the end of the intestine between the two ligatures in which infected material can accumulate. The same danger arises when the enterotribe is employed. No foreign body is left in, as from the ligature or the crushed portion of the intestinal wall from the use of the enterotribe, which becomes necrotic. The method is simple, is carried out quickly and without special instruments. Voeckler observed no signs of hemorrhage from the untreated, divided mucous membrane.

**Local Anesthesia in Operations on the Trigeminal Region.**—BRAUN (*Deut. Zschr. f. Chir.*, 1911, ci, 321) says that the addition of adrenalin to cocaine solutions permits us now to operate under local anesthesia from injection of the larger nerve trunks in parts of the body where a tourniquet cannot be applied. The substitution of novocain for cocaine, permits us to inject a much larger quantity of the anesthetic fluid in the neighborhood of the nerve trunks without danger. Braun believes that in no place in the body will local anesthesia produce so great an advance as in operations on the trigeminal region. The technique for reaching the various branches is fully discussed. The advantages of local anesthesia in these operations are as follows: Resection of the upper jaw loses almost all its horrors and dangers, and becomes an entirely different operation from that under general anesthesia. No preliminary operation is necessary, neither a tracheotomy nor a ligation of the common carotid. Nor is the Kuhn triage necessary, since little or no hemorrhage occurs. As the surgeon is not obstructed by the anesthetist, he can work unhindered to the end of the operation. After the operation the patient is as fresh as before, and is absolutely not collapsed. For tongue operations and

excision of the lower jaw the advantages are the same. Braun has done these operations for two years under local anesthesia without exception. The anesthesia and freedom from blood of the operative field were always complete, narcosis never being necessary. No patients died as the result of the operation. Of 8 cases of resection of the upper jaw, and of 12 operated on for cancer of the oral cavity, 2 had postoperative complications, a very small percentage. For injections into the orbit and the pterygopalatine fossa, no special dangers are associated, and there is no need of fear of wounding the vessels.

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**A Contribution to the Pathology of Renal Calculi.**—ROSENBACH (*Deut. Zschr. f. Chir.*, 1911, ci, 536) made a study of this question based upon experimental work on dogs. Renal calculi, as Elstein and many others have shown, are formed by the collection together, of organic and inorganic material. For the formation of stones which give clinical symptoms, the *sine qua non* is a condition in which there is an increase of salts in the blood, a "diathesis." In this respect authors are agreed. On the other hand, it is known that this alone is not sufficient for stone formation. Clinical experience shows that in gout ("uric acid diathesis") the oxaluria, phosphaturia, and cystinuria, in most cases do not lead to the formation of calculi. In Rosenbach's opinion, the second factor in the formation of stone is to be sought not in the kidney itself, but in the blood. According to this suggestion, renal calculus is not a surgical condition. We may hope that the dissolvent work of the kidney may be aided by the ingestion of sufficient water. It would be the ideal method if, after the removal of the diathesis, the kidney could deal with the calculus alone. But severe and irreparable changes in the kidney may have been caused by the stone, so that surgical as well as internal therapy will be justified. The damage to the parenchyma will not be much increased by the operation, while by the removal of the obstruction an existing infection is permitted to heal.

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**A New Method of Operating for the Gastric Crises of Tabes.**—EXNER (*Deut. Zschr. f. Chir.*, 1911, ci, 576) operated on one case by Förster's method of dividing within the spinal canal the sensory roots of the tenth, eleventh, and twelfth dorsal spinal nerves. For four weeks after the operation the patient was free of trouble. Then the vomiting returned, but without the girdle sensation and without the pain accompanying the gastric crises. After a study of the question, Exner concluded that the vomiting is the result of the gastric movements which are controlled by the vagi, and that in some cases at least the primary cause is an involvement by the disease of the vagus or its centre, and that the pain is secondary to the vomiting. It has been shown by animal experimentation that not only is the vagus the motor nerve of the stomach, but that its division leads to pathological changes in its walls, as ulcers. Exner decided to divide the vagi at the cardia, before they gave off their branches to the stomach, and, in order to prevent the gastric complications, provide a gastrostomy through which a perforated drainage tube could be made to pass the pylorus into the duodenum. This was done to overcome the pyloric spasm that results reflexly from excess of acid con-