

Wound Shock. Lieutenant-Colonel W. B. Cannon, M.C., U. S. Army. The Military Surgeon, Vol. 44, No. 5, May, 1919, p. 494.

Lieutenant-Colonel W. B. Cannon, Professor of Physiology in Harvard University, reports the work of his clinical observations and laboratory studies on shock during nearly 20 months' experience in Europe.

The evidence presented shows that shock is not primarily due to nervous exhaustion, fat embolism, nor "acapnia" arising from excessive respiration. The low blood pressure of shock is due to toxic material given off from injured tissue, for (a) if the muscles of a hind leg are crushed, the blood pressure after about 20 minutes begins to fall and goes down to a shock level; (b) this occurs even though the nerves to the leg are previously severed; (c) it does not occur if the blood vessels are previously tied, but takes place immediately after the blood flow is restored; and (d) the loss of blood and lymph into the injured tissue is insufficient to account for the lowered pressure.

If the blood pressure falls below approximately 80 mm. Hg., the tissues begin to suffer from lack of oxygen. The same effect may be seen after hemorrhage, thus accounting for the resemblance of shock and hemorrhage.

In the treatment of shock, arterial pressure should be raised by transfusion if it persists below the critical level (80 mm. Hg.). Crushed tissue should be removed as soon as possible. If a limb has been shattered and rendered useless, the passage of toxic material from the injured tissue may be prevented by a tourniquet placed as near as possible to the injured region. Amputation should be done proximate to the tourniquet and before removing it. Loss of body heat should be checked and normal temperature restored by application of heat.

Since ether lowers the blood pressure in shock, it should be avoided as an anesthetic. Use nitrous oxid and oxygen in a ratio not exceeding 3 to 1, preceded by morphia, is advisable. Always avoid deep anesthesia and cyanosis.

Focal Infection and Its Relation to Toxemia of Pregnancy with or Without Convulsions. John E. Talbot, Worcester, Mass. The Boston Medical and Surgical Journal, Vol. 130, No. 17, April 24, 1919, p. 469.

After summarizing the main points of his theory on the etiology of toxemia of pregnancy, the writer cites certain cases to show that there is frequently a clinical relationship between the activity of the focus of infection and the occurrence of toxic symptoms. He also points out that the search for the focus of infection is a difficult one. Negative reports by the x-ray expert should not be accepted unless the films show the peridental membrane of the roots of the teeth. The tonsils may contain the focus of infection. Puffiness over the eyes is suggestive of the presence of an active focus of infection and neuritis in the face, neck, arms or hands may be an early sign of an approaching toxemia of pregnancy. It is suggested that the amount of retained nitrogen in the blood of a toxic patient may turn

out to be the most reliable test of the amount of toxemia present.

Early Recognition of Carcinoma of the Stomach. John B. Deaver, Philadelphia, Pa. New York Medical Journal, Vol. 109, No. 18, May 3, 1919, p. 750.

There is perhaps no more insidious disease than carcinoma of the stomach. Early recognition is practically impossible. The x-ray may show an abnormal condition, but it can not differentiate carcinoma from other perhaps benign conditions. Laboratory methods are unsatisfactory owing to the fact that the results lack uniformity. When carcinoma can be diagnosed by the clinical signs it is generally too far advanced for more than palliative measures, although a few permanent cures are obtained by operation. One way of curing carcinoma of the stomach is to avoid its development by operative removal of gastric ulcers, a certain percentage of which are known to develop malignancy.

A New Operation for Duodenal and Gastric Ulcer. J. Shelton Horsley, Richmond, Va. Read in Section on Obstetrics, Gynecology and Abdominal Surgery of the American Medical Association, Atlantic City, June 10-13, 1919.

Dr. Horsley quoted clinical statistics to show that gastro-enterostomy is not satisfactory in curing cases of duodenal and gastric ulcer and then discussed the fact that the operation is not a physiologic operation and that it merely relieved symptoms by lessening the peristalsis, for it is the peristalsis that causes pain by pressure on the sensory nerves of the stomach. He discussed Finney's pyloroplasty and Heineke-Mikulicz's, pointing out objections to these two operations. He called attention to the similarity between an ulcer in the pyloric region near the sphincteric action of the pylorus and fissure or ulcer in and near the grasp of the sphincter ani. He described a new operation which was founded on the principle of giving physiologic rest to the pyloric end of the stomach and removing the pathology. The operation which he proposes divides the pylorus, but does not go more than an inch into the duodenum and is extended two or more inches into the stomach. The ulcer is excised or the contracting bands divided. The incision is so sutured that both ends of the sutured incision are in the healthy stomach wall. A piece of gastro-colic omentum is brought up and fastened over the line of sutures for additional security to prevent adhesions to other structures, and to counteract the tendency of the pylorus to be drawn up high under the liver. A clinical report is given of eleven patients operated upon by this method.

Dilatation and Curettement. Howard A. Kelly, Baltimore, Md. The Therapeutic Gazette, Vol. 43, No. 5, May 15, 1919, p. 305.

The operation of dilatation and curettage is commonly considered an exceedingly simple one, but it should not be undertaken except by skilled hands and for a definite purpose. The author quotes the opinions of Dr. J. Riddle Goffe, of

New York; Dr. John A. Sampson, of Albany; and Dr. Matthew D. Mann, of Buffalo, on this subject, who speak of perforations and even death occurring in careless hands. He then describes the operation, its fields of usefulness and finally the pitfalls to be avoided.

Dysmenorrhoea is often relieved by dilatation and persistent hemorrhages by repeated curettings. In sterility dilatation is more or less irrational, but often works marvelously well. In incomplete abortions it should not be used as a routine measure, although necessary where there is too prolonged hemorrhage or febrile disturbance. In cancer of the uterus, curettage is necessary with subsequent microscopic diagnosis. The importance of preserving specimens in a 10% formalin solution and sending them to a competent pathologist for an opinion is emphasized.

The author mentions and shows pictorially in original sketches six dangers connected with dilatation and curettage: (1) pulling down the cervix and rupturing an unsuspected pelvic abscess; (2) rupturing the cervix out into the broad ligament by overzealous dilatation; (3) perforation of the fundus with the uterine sound; (4) perforation of a retroflexed uterus with a dilator; (5) perforation of the ante flexed uterus with a dilator; and (6) tearing a hole in the fundus of the uterus with a curette. In the last event it has sometimes happened that the bowel has escaped and the befuddled operator has proceeded to cut it off.

Changes in the Blood Immediately Following Transfusion. John G. Huck, Baltimore, Md. Johns Hopkins Hospital Bulletin, Vol. 30, No. 337, March, 1919, p. 63.

Following the injection of blood an immediate increase in the red cell count was found, showing a marked increase, in many cases apparently out of proportion to the quantity of blood introduced. In one case the red count rose from 880,000 to 1,488,000 immediately after the injection of 500 c. c. In some cases this increase continued for several hours, then falling to normal at the end of 24 hours. In other cases, however, there was a marked increase at the end of 24 hours. In several instances, the count fell for a few hours and then rose slightly. The hemoglobin usually showed a uniform rise following transfusion, reaching its maximum at the end of 24 hours. In some cases the hemoglobin did not run parallel with changes in the red count.

In practically every case there was some increase in leucocytes. In several instances, however, they remained stationary or even fell. The most striking change in the differential count was an increase in polymorphonuclear neutrophils. Occasionally, a neutrophilic myelocyte was seen following transfusion, but there was no outpouring of nucleated red cells. The very few found in four instances were probably accidental. The point of practical interest and importance is that no exact mechanical effect can be demonstrated following the introduction of definite quantities of blood. Whereas, generally

speaking, the introduction of blood raises the count, the effect is essentially a biologic one involving the redistribution of blood in the body, and its exact nature is not at present understood.

The Interrelationship Between Ovarian Secretion and Uterus. F. C. Floeckinger, Taylor, Tex. Texas State Journal of Medicine, Vol. 14, No. 10, February, 1919, p. 322.

The importance of the relationship of the internal secretion to radical operations on the female generative tract has been strongly emphasized. From the immense literature on the subject, the author extracts the facts, which lead him to study the relationship between uterus and ovarian secretion.

In those cases in which the ovaries in the child-bearing period must be sacrificed, the author comes to the conclusion that in those cases in which complete ablation has been done, the neurotic symptoms of artificial menopause were very light, and only about 50% will show neurotic disturbances. If neurotic symptoms appear, they generally are very light and last about six months, whereas in those cases where the uterus was preserved, the neurotic symptoms lasted much longer and were more severe. The author lays great stress upon the psychical effect produced in case complete ablation is done and the patient informed in detail of the nature of the operation.

Great diplomacy must be exercised in presenting the nature of the operation to the patient: first, to avoid the psychical effect; second, to protect himself from legal proceedings; and third, the importance of bringing those patients operated upon back to health. By all means conservative surgery should be executed in all cases.

Tuberculous Ano-rectal Fistulas: Report of Two Cases Showing Secondary Lung Involvement and Late Clinical Evidence of Their Character. S. Mortimer Hill and Arthur A. Landsman, New York, N. Y. Journal American Medical Association, Vol. 72, No. 12, March 22, 1919, p. 860.

The authors report two cases of tuberculous ano-rectal fistula which originated in abscess about the rectum and appeared benign infections, showing none of the characteristics of surgical tuberculosis in this region until several months had elapsed. Then, as the wounds failed to show the usual signs of repair and assumed an unhealthy look by becoming swollen, edematous, spongy and irregularly ulcerated, examination disclosed that the condition was a specific infection due to the tubercle bacillus and that pulmonary metastasis had developed.

They sound a note of warning that clinical signs alone are insufficient in some cases to establish the true nature of a fistula in ano, until late in the disease, and that in some persons resistance is diminished to such an extent as to make them liable to secondary lung involvement from a primary focus about the rectum.