

as indicated above. The following case illustrates this condition and is interesting from the fact that the adhesion was separated without re-opening the ulcer.

Case.—E. J., a female aged 32 years consulted me regarding severe gastralgia and digestive disturbance of about one year's duration. She complained of very acute abdominal pain coming on soon after eating, which was frequently attended with vomiting. Coughing, sneezing, etc., were attended by the most excruciating pain. She had been constantly under treatment for one year, her ailment being diagnosed as dyspepsia, and was almost discouraged concerning her condition. Owing to the difficulty with which food was retained in the stomach, she was extremely emaciated. Temperature was 100, pulse 85. An examination of the abdomen revealed, upon palpation, a tender indurated spot about one-half an inch above and the same distance to the left of the umbilicus. This, together with the symptoms above enumerated, led to the diagnosis of an adhesion between the stomach and the abdominal wall, with possibly the formation of an abscess. In addition to the usual preparations for the celiotomy, the stomach was thoroughly washed out. The abdomen was opened in the median line and the adhesion existing between the anterior surface of the stomach and the abdominal wall was readily found. This point was walled off from the surrounding tissues with gauze sponges and the adhesion separated, keeping close to the abdominal wall. No pus was present and the stomach wall at this point was found to be intact, the ulcer having apparently healed. The ulcerated area, however, was folded in and retained by close suturing. As no abscess existed and the stomach had not been opened the abdominal incision was closed without drainage. The troublesome symptoms immediately disappeared and, fifteen months after operation, had not recurred. The patient rapidly regained her lost weight and has since been in perfect health.

The interesting features of this case are:

1. That the ulcer should have occasioned such extreme functional disturbance and established so firm an adhesion without being attended with hemorrhage and more of the classic symptoms.

2. That after so active an ulcerative process the lesion should undergo such complete spontaneous healing that the operation revealed practically no trace of it except the adhesion and a slight induration of the stomach wall.

3. That the condition was easy of diagnosis owing to the induration which could be plainly felt and the typical disturbance of function. (Most authorities state the existence of adhesions between the stomach and contiguous structure can only be surmised without an exploratory incision.)

If, during the course of a gastric ulceration, alarming hemorrhage should occur and death seems imminent from this cause, the abdomen should be opened, the ulcerated area excised and closure effected by suturing. If for any reason this can not be accomplished the stomach must be opened and the bleeding vessel ligated.

Cicatrical contraction accompanying the healing of a gastric ulcer does not usually occasion enough trouble to demand operative relief unless the ulcer is situated at the pylorus. Contraction and cicatrization occurring at this point may, by occluding the pyloric orifice, occasion the troublesome train of symptoms consequent upon the dilatation of the stomach which ensues.

Should this occur surgical intervention is imperative. Several procedures have been advocated for the relief of this condition, but I think we may adopt pyloroplasty, as performed by Heinecke, as the operation of election and I can not conceive of a pyloric stenosis due to the above cause in which it would not be applicable.

In all operations on the stomach strict adherence to the following points is essential.

If the case be one demanding immediate interference, the feeding of the patient should be so regulated that at the time of operation the stomach will be empty and by copious irrigation the intestine rendered as free as possible from fecal matter.

Just before operating, the stomach should be thoroughly washed out. After the stomach is exposed, if perforation exists, and extravasation has occurred, before attempting to remove the extravasated material the opening in the stomach must be found and closed. The escaped stomach contents may be best removed from the peritoneal cavity by dry gauze sponging followed by copious irrigation with normal salt solution and the cavity again sponged dry.

If extravasation has not occurred such an accident must be prevented by immediately surrounding the operative field with sponges walling off the general cavity of the peritoneum.

In those cases where the perforation occurs upon the posterior wall of the stomach and is inaccessible for suturing, further extravasation must be prevented by carefully placed gauze packing. The writer has encountered such a condition twice in gunshot wounds of the abdomen.

In all cases where extravasation has occurred ample gauze drainage must be provided and if evidence of general peritonitis is present, counter openings for drainage in the loin are indicated.

Drainage must be maintained according to the requirements of individual cases. There can be no fixed rule regulating its withdrawal.

Great care must be exercised during the evacuation of a localized abscess following perforation, that its limiting walls be not broken and a general infection invited. It is recommended that these cavities be cleansed by dry sponging, as the force of an irrigating stream is dangerous.

In separating adhesions between the stomach and neighboring parts by dissection, strive to avoid opening into the stomach cavity.

If after separation the adherent area of the gastric wall appears weak, turn it in and suture.

For stomach wounds in general, the best suture, is an interrupted Lembert of fine silk. In these operations time is an important consideration and they should be rapidly performed, every detail being carefully arranged before making the incision. The after-treatment of all operations upon the stomach is of great importance. Nothing should be allowed by the mouth until the third or fourth day, all nourishment being administered by rectum. Mouth feeding when begun should be done with great care for some time, soups and broths being first given.

THE CONSERVATIVE AGENCY OF SHOCK.

Read at the meeting of the Western Surgical and Gynecological Association, at Denver, Colo., Dec. 28 and 29, 1897.

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Until recently, the old notions and teachings of the cause and modus operandi of surgical shock have been little modified, notwithstanding the vague and uncertain theories upon which they were based. Literally, the term surgical shock has been applied to the condition of the body which is induced by severe injuries, operating through the nervous system, not attended with or produced by hemorrhage. Profound depression and even death may be so caused, but not com-

monly, and even when so produced, that it is serious because of the nervous disturbance alone can not be admitted, as the secondary circulatory disarrangement is the prominent symptom presented and is also the symptom which must be combatted with the greatest vigor if the life of the patient is to be saved.

Few serious injuries or surgical operations, which are followed by so-called shock, are unattended by hemorrhage, external or concealed. The symptoms which such patients present are due to the conjoined effects of the hemorrhage and "shock" combined.

For many years it was taught that penetrating wounds of the abdomen and amputations through the hip joint were ordinarily fatal because of the profound shock which accompanied them, but later experiences have taught that with perfect hemostasis their mortality may be greatly reduced. This indicates that hemorrhage is a far more important factor in the production of what we have heretofore called shock than has been believed.

It has been usual to attribute the death of patients, upon whom abdominal operations have been performed, to the "shock" of the operation, while the autopsy has ultimately shown that the patient had died of concealed hemorrhage.

A small concealed hemorrhage may go on so slowly and insidiously as to give rise to none of the symptoms which are characteristic of hemorrhage as in contra-distinction to "shock." In such cases it will be difficult to say that the state is not one of literal shock.

The tendency now is to regard surgical shock, as a condition which follows such operations or severe injuries as exhaust the nerve force of the patient and reduce his blood pressure, through the true shock and the reflex action of the hemorrhage, the latter being considered the more important factor.

The present status is unsatisfactory and confusing and the definition and meaning of the term shock should be applied to the condition as it is now known and its double origin recognized; or if it be preferred to retain this term for its original and literal use it should be limited strictly to this meaning and some new word chosen for the description of the mixed condition which comes after injuries and operations, the genesis of which is due to both shock and hemorrhage.

The term traumatic asthenia is well suited to the description of this mixed condition and also indicates its origin.

This mixed shock has heretofore been regarded as a serious and unfavorable complication of injuries and operations. This view should also be reconsidered and modified as it is now believed, by some, that the condition is essentially conservative in its agency, that if it were not for this lowering of the vital action through and by the intervention of the reflexes the suffering of the patient would be far greater and his life more quickly sacrificed.

Recall the picture of profound shock often seen in the emergency operating room after injuries received on the railroad or in the factory. The patient is pale, with pupils dilated but with eyes closed, his skin is cold and clammy, he is pulseless or nearly so, his temperature is subnormal and he desires to be left alone and allowed to rest. He is not suffering in proportion to the severe character of his injury and is bleeding very little, not because he has no blood to lose but because it is not circulating with its usual force. Is it not evident that the conservative efforts of all nature's

agents are being exercised to render his suffering and the consequent exhaustion as little as possible, and prolong his life to the full limit by lowering his blood pressure and storing the vital fluid in his dilated and relaxed blood vessels? His very condition of perfect relaxation, inability and disinclination to make exertion is his salvation.

In all diseases, under all circumstances, the tendency of the natural processes is to resist death and destruction as long as possible and by every means.

The successful treatment of disease must take into consideration the indication nature gives as to the best way to proceed. Success depends upon following these indications and supporting the resisting powers in the fight for life, for death comes not by nature's consent or assistance but always in spite of her strongest antagonism.

I believe it has not been proved by the experimental physiologist that the reflex effect of hemorrhage is to lower blood pressure and so save blood volume. That this result is attained every surgeon knows, but to what extent it is accomplished through reflex action we can not say.

The experience of every surgeon who has carefully observed the condition of his patient under and after operation will lead him to believe that there is some controlling influence exercised over the heart and the circulation of the blood by a persistent arterial hemorrhage however small in amount. The influence upon the circulation is out of all proportion to the amount of blood lost as is also the profound effect in general upon the patient, who becomes cold, pulseless and is evidently near death, perhaps to be perfectly revived, with a full bounding pulse, when the hemorrhage is arrested. Such phenomena are sometimes seen in cases of ruptured ectopic pregnancy, the patient's condition becoming decidedly better or worse with each arrest or fresh attack of hemorrhage. It hardly seems rational to doubt that these remarkable effects are the results of reflex action, or that even a small but persistent hemorrhage may induce them.

Gynecologists and abdominal surgeons are peculiarly interested in having this matter thoroughly understood, for to them the question must often come for solution whether a patient is suffering from shock or it be traumatic asthenia, with the possibility that hemorrhage is still persisting and so maintaining through its reflex effects the state of lowered vitality. The importance of this question in its bearing upon treatment is evident. If the case be one of uncomplicated shock cardiac and other stimulants are indicated, transfusion and infusion may be employed and all the vital forces be quickly brought into normal activity; whereas if concealed hemorrhage continues these remedies are contra-indicated and opposed to the conservative efforts of nature, for the more the circulation is increased in force and volume the greater must be the hemorrhage till all bleeding points are controlled.

That the balance should be in every case so nicely adjusted as to give exactly the required amount of protection is too much to expect. It must be clear that the shock or traumatic asthenia may under certain circumstances be so severe and profound that the patient can not react and recover.

Here as in other branches of medicine the personality and condition of the patient bear directly upon the result. The nervous, anemic, exhausted, old, or very young person will not withstand a degree of trau-

matism that would make little impression on one in the full vigor of youth.

¶ The degree of surgical anesthesia and the length of time it is maintained must also affect the result through the obliteration of the reflexes and the consequent paralysis of nature's conservative mechanism.

The conclusions I deduce from the foregoing are:

1. Surgical shock entirely unassociated with hemorrhage is a condition rarely seen and one which may usually be successfully treated in persons who are otherwise in good health.

2. Hemorrhage though small in amount is a far more important factor in the production of surgical shock (as it is seen clinically) than we have been accustomed to think it.

3. This mixed shock (traumatic asthenia) should be designated by some distinctive title, or the term shock be construed to comprehend all the factors in its genesis.

4. While not proven it seems probable, that the effects of even a small continuous arterial hemorrhage is to produce through its reflex action lower blood pressure and in general a condition so like true shock as to be very difficult of differentiation, particularly if the hemorrhage is concealed; as in ruptured ectopic pregnancy.

5. Surgical shock, with or without hemorrhage, must be construed as primarily conservative in its tendencies. The incident prevention of rapid exhaustion, of acute suffering, or great blood loss when the blood vessels are opened, all tend to the ultimate saving of life.

6. Premature stimulation in the treatment of traumatic asthenia may defeat this conservative effort of nature. Bleeding should be stopped and proper provision made for the comfort and welfare of the patient before strong stimulation is resorted to, unless there is imminent danger of death.

7. Anesthetics must be sparingly and carefully given to patients suffering from surgical shock (traumatic asthenia), chiefly because they completely obliterate the reflexes. The saturation of the patient with an anesthetic may turn the scale against him even though the direct effect of the anesthetic be stimulant. The same rule holds good in regard to the employment of alcoholic stimulants if too freely used.

8. We should co-operate with and supplement nature's conservative efforts. They are always exercised in behalf of the patient, never against him.

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LUPUS VULGARIS — EPITHELIOMA — ACNE —ALOPECIA CIRCUMSCRIPTA—TINEA VERSICOLOR.

A Clinical Lecture to Members of the American Medical Association,
delivered in the Medico-Chirurgical Hospital of Philadelphia,
June, 1897.

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LUPUS VULGARIS.

The patient is 40 years of age. The disease from which she suffers began about three years ago upon the right cheek, whence it has spread toward the upper lip. There is much infiltration in the affected part, and exterior to the edges of the main patch are a number of tubercles of glutinous appearance. These tubercles project slightly above the general surface.

The extensive and continuous patch upon the cheek is the result of the coalescence of many tubercles. Most of the cheek has been invaded in this manner. Upon the seat of disease are many fine scales. The development of these lesions has, from the first, been accompanied by considerable pain.

But the disease is not in active progress in all parts. Upon the cheek are several cicatricial spots. I know, therefore, that however chronic, disfiguring or deep this ulceration, it can not be of malignant character. Epithelioma never exhibits these cicatricial spots intermingled with slow, progressive ulcers. These features, in connection with the intact tubercles along the principal lesion are characteristic of lupus vulgaris. In other words, in lupus vulgaris we usually perceive coincidently different stages of the malady. The primary lesion is a papule or tubercle, deeply imbedded in the corium and visible at first as reddish, brownish or yellowish spots. The lesions are due to an infiltration of small cells, which in time undergo fatty degeneration and may be absorbed. In other spots ulceration occurs and may continue indefinitely or may cicatrize in certain spots. Now, all this process of evolution, involution, ulceration and cicatrization constitutes a totally different clinical picture from that of epithelioma. Upon an attentive study of cases we should rarely err in diagnosis. This is a typical case of lupus, but there are inveterate cases in which ulceration penetrates to or even involves the bone and such are very apt to be mistaken for cancer.

In this patient the butterfly arrangement of the lesions is absent, as indeed it generally is in lupus vulgaris. That symmetry of outline is far more indicative of lupus erythematosus. The age at which the patient was attacked is also exceptional.

In some cases the infiltration involves the papillae of the skin, which become immensely enlarged and sprout forth as wart-like elevations. This form of the affection is known as lupus verrucosus. Lupus generally attacks the face, though it sometimes appears upon other parts of the body.

The etiology of this disease has been the theme of much discussion. It is now looked upon by some as an attenuated form of cutaneous tuberculosis, although it is admittedly of a different clinical type from other forms of tuberculosis and the lesions contain few bacilli. As a general rule, the subjects of lupus enjoy fairly good health. In some instances they develop pulmonary tuberculosis.

Lupus vulgaris is liable to be mistaken for the tubercular or some of the ulcerative lesions of later syphilis. The former, however, is usually limited to the face. The tubercles of syphilis appear upon various parts of the body and display a characteristic coppery color. The ulcers of lupus have a tendency to coalesce; those of syphilis are most often isolated. Syphilitic ulcers are attended by abundant foul supuration and covered by greenish crusts. Syphilitic ulcers are more rapid in their course than those of lupus and the cicatrices of syphilis are white and smooth. Lupus scars are an unsightly disfigurement.

The treatment of lupus depends much upon the general condition of the patient. The food should be digestible and nutritious. If scrofulous or tuberculous manifestations are present appropriate remedies should be ordered. Other impairment of the system must be treated upon general principles. Cod liver oil is an excellent remedy and shall be given in this case. The patient feels weak although she has not