every six hours, for three days longer. From this time the woman did perfectly well; and in three weeks after the operation returned to her work, cured.

Aug. 28th, thirty-three days after the operation, I made a speculum examination. The parts were perfectly sound. There was not the slightest communication between the vagina and rectum; nor was there any serious degree of contraction.

A few days after this I went South, having been appointed Surgeon to a Connecticut regiment, and heard nothing more of my patient until November, 1863, when I was told by the woman who took care of her at the time of the operation, that she saw her the month before, and that there had been no return of the trouble for which I treated her; although she had had sexual intercourse with her husband as usual, excepting the first month after the operation, until his death, a period of eight months. She never became pregnant again.

---

AFTER-TREATMENT OF AMPUTATIONS AND RESECTIONS IN THE THIRD CORPS FIELD HOSPITAL AFTER GETTYSBURG.

BY C. C. JEWETT, SURG-IN-CHIEF, 1st BIVG., 2d DIV., 3d CORPS.

[Read before the Medical Society of Surgeons of the 2d Div., 3d Corps, Army of the Potomac, and communicated for the Boston Medical and Surgical Journal.]

At my request our worthy Vice President has given me a subject on which to write, and has selected "The After-treatment of Amputations and Ressections in the Field Hospital, as witnessed in the 3d Corps Hospital after Gettysburg"; and it is in fulfilment of my promise to write on the subject assigned, that I propose now to give you a few hastily arranged thoughts.

Soon after returning from the field hospital of the 2d Division, 3d Corps, in Gettysburg, while in the possession of data furnished by the records of the hospital and with the interest excited by the recent occurrences and a fresh recollection of them, I made a careful report of what there came under my observation to the Surgeon-General of Massachusetts, which communication, although published, I have not at present by me. In this report were given the number of the various kinds of amputations, with the percentage of primary and secondary, and deaths resulting in each; the number of resections, of compound comminuted fractures of the femur, of the complications secondary hemorrhage and tetanus, with the noticeable features, as well as the usual plan of treatment followed in each, and the hints gathered therefrom. However easy and pleasant may have been the writing of such a paper at the time, it is not accomplished with facility now in the absence of documents and with the interim of time which has since elapsed, occupied with other subjects; and with the present moment bringing all the interruptions cumulating on the first of the month in the shape of orders, letters, reports, &c.
In hospitals composed, as were those at Gettysburg, there can
be no strictly uniform plan of treatment. System requires time for
its maturing, and a dozen surgeons brought together from as many
different schools, and each having zealous interest in the cases
belonging to his own regiment or that he has individually operated
upon, will hardly work at once in a groove, so as to make it possible
to say such and such is the plan pursued in this hospital. If I ex-
cept, however, two medical officers—(both of whom, I believe, no
longer belong to this Division)—one of whom was very fond of imme-
diately clapping a poultice on every stump, and the other of treating
compound comminuted fractures of the femur by crossing the legs,
defending the practice on the ground that it was the easiest position
for the patient—there was no great discrepancy apparent in the sys-
tems of treatment pursued by the surgeons in attendance. Although
we could show in our hospital some beautiful results of union by first
intention after amputation, yet a large proportion of stumps suppu-
rated very considerably; and as the treatment connected with the
process of suppuration is in many respects identical with that pur-
sued after resection, which comes within the letter of my bond, I
propose to give my attention mainly to this portion of the subject;
passing lightly over the treatment more generally pursued to secure
union by adhesive inflammation.

Adhesion was interfered with in some instances by the too great
number of sutures used; in others by the injudicious wad of banda-
ges applied; while in others still the flap, having united superficially,
after a few days gaped open from the pus burrowing beneath and
forcing apart the united surfaces. There was one style of opera-
tion, the bilateral, which had this condition of things as a usual re-
sult; and it seems a sufficient objection to the flaps thus produced
that no position or pressure can be suitably applied in the field, to
insure union of the deeper portion of the wound.

The dressings used were generally as light as possible; cloth hav-
ing the preference of most of the Surgeons in charge of wards, as
well as my own, over lint. A very neat dressing, fulfilling every in-
dication, was a piece of linen cut in the form of a Maltese cross, and
lightly confined to the stump by a single turn of the bandage. In
no one instance of a patient in the hospital of the 2d Division, 3d
Corps, at Gettysburg, was it thought prudent to treat according to
rule in respect to diminishing the diet. It had already been quite
sufficiently antiphlogistic before the operation to preclude any dan-
ger of inflammation from over-nutrition; and the bill of fare at this
time was not of that surfeiting richness to render the exclusion of
many articles necessary. To the best of my knowledge, every man
operated on had diluted whiskey soon after coming out from under
the influence of chloroform, and received from the first as liberal an
allowance of beef-tea as could be obtained. I saw no unfavorable
results from this course of procedure. The plan pursued was, dur-

The Boston Medical and Surgical Journal as published by
For personal use only. No other uses without permission. From the NEJM Archive. Copyright © 2010 Massachusetts Medical Society.
After-treatment of Amputations and Resections.

ing the days prior to the full establishment of the suppurating stage, to moderate the inflammation and consequent suppuration by cold applications assiduously attended to, this treatment also giving the most favorable condition for securing a union by adhesion. After resection the same cold-water dressings were used. In no case were pledgets of lint or charpie employed, but an effort was made to have all appliances to the wound light and unirritating. Very constant attention is required to keep the water dressings cold, and when the patient cannot attend to them himself or have a careful attendant, a siphon so arranged as to let cold water constantly drop on the part is highly useful. This plan was pursued by a friend of mine, under whose charge I lost a case of Perigoff's section, immediately after the operation, some year and a half since; and the very happy result of the case I ascribe in a great measure to the thorough and constant application in this manner of cold water. During this stage ice is a valuable adjuvant, for the comfort and utility of which our wounded, of the first days of July last, have reason to thank the Sanitary Commission.

After the suppurative process is fully established, the abundant use of cold applications is injurious. The indications now are to moderate suppuration, to allow free exit for the discharges, to promote cleanliness, and, if necessary, to use astringent or disinfecting fluids. At this time, the proper use of the cold-water dressing is to moisten the cloth at longer intervals, simply to prevent its agglutination to the wound, and to remove it entirely two or three times a day for the purpose of cleansing it. I was always in the habit of treating wounds in this stage by a weak dilution of Labarraque's solution of chlorinated soda, or of Burnett's disinfecting fluid. Not only are cleanliness and the comfort of the patient thus promoted, but suppuration is moderated. Disinfectants were almost unknown articles in the time and place we are particularly speaking of, and could not therefore be put to these uses. Dr. Sim, formerly Medical Director of this Corps, during a conversation held with him soon after his return from the care of Gen. Sickles's leg, told me that he treated that, to us famous stump, by medicating the water dressings with permanganate of potash. I have used the tincture of the muriate of iron, for the purpose of moderating suppuration, with good success, but should give my preference in the field to the perchloride of iron, which was extensively used for this indication in the Crimean war, as more convenient. Coal oil, besides accomplishing other useful ends, was thought also, in the Field Hospital at Gettysburg, to be of value in these cases. I can speak with extreme satisfaction of the use of castor oil as a substitute for simple cerate, where granulations are springing up in a healthy manner, having the advantage over the cerate of being thoroughly unirritating and not becoming rancid.

Considering the class of cases we have to treat after a battle, the Vol. LXX.—No. 11*
After-treatment of Amputations and Resections.

constitutional treatment after amputation having my preference is muriated tincture of iron three times a day, eggs to the extent of a dozen in the twenty-four hours from almost the very first; and after two or three days a diet as rich in everything nutritious as can be obtained and is relished; and also a fair allowance of stimulus. Of course the greater the degree of suppuration the greater the amount of nutrition required.

Regretting that the time at my disposal and the other circumstances referred to compel me to make so incomplete a paper on this subject, I will leave it here, trusting that the remarks of the members of the Society will fill out and build upon the skeleton merely indicated.

DISCUSSION.

Dr. King inquired of the essayist, whether, in objecting to the bi-lateral flap operation, as causing great inconvenience, on account of the difficulties of keeping the parts in proper approximation and thereby diminishing the risks of the burrowing of pus, his remarks referred to the arm as well as to the leg?

Dr. Jewett replied that he considered the same objection to hold good in bi-lateral flap operations of the upper extremities; such, at least, had been his experience.

Dr. Calhoun remarked that the subject of the treatment and progress of operations, and the wounded generally, while in the field hospital, and before their removal to general hospitals, was very important. Surgeons in the field feel deeply the need of knowing the result of operations. Especially after the battle of Chancellorsville was this fully impressed upon his mind. There was one point, however, which he wished to allude to, in regard to operations and their results, as gathered from statistics of general hospitals. These statistics are too favorable, as they include only the cases which have successfully passed through the field hospitals, while unfavorable cases have terminated in the latter. To obtain reliable data as to the favorable or unfavorable results of any operation, it would be necessary to include all cases, those in field as well as in general hospitals.

Another interesting point to which his attention was called by the essay, was, the preference, at present shown by surgeons, of the flap operation to the circular. Why is this? Is there any difference in the secondary results? He could not explain the fact, except, perhaps, that the flap operation generally made a better stump. In the earlier operations of the war, gentlemen could well remember that the circular method was universally employed. In the first battle he did not remember having seen flap operations performed by more than two surgeons. All this has changed.

He fully agreed with Dr. Jewett's remarks as to the bad effects of bandages, often interfering materially with the comfort of the pa-
After-treatment of Amputations and Resections.

215

tient and the proper condition of the wounds. So seriously had the bad effects of too much bandaging been shown, that once, as the members would remember, he issued a circular forbidding their use entirely, and he thought the order did a great deal of good. It was Guthrie, who, if he remembered rightly, once said that people would do better if they would send him boxes of candles instead of boxes full of rollers. It is difficult to prevent swelling and undue pressure, even if the bandages are properly applied at first. Especially on the field should the temporary bandages, applied at first, be light.

Dr. Jewett remarked that a farther objection to the extensive use of bandages was, that they interfered with cool dressings, so essential in securing healing by first intention.

Dr. Irwin stated that he had noticed frequently that rollers are made of new cloth, which, as soon as moistened, shrinks and compresses the parts. He had frequently seen cases in which, the bandages having been applied on the field, and some time elapsing before the dressings were renewed, the limbs became unduly swollen and inflamed. Rollers should always be sponged before being applied, so as to avoid shrinking.

Dr. Calhoun agreed with Dr. Irwin. He believed, however, that the rollers and bandages, now supplied from the laboratory at Philadelphia, are all previously sponged, so as to prevent subsequent shrinking. He would ask Dr. Jewett, whether there had been many cases of secondary haemorrhage in his experience at Gettysburg?

Dr. Jewett could not give the exact number; but there were comparatively few cases. Altogether, not more than about a dozen.

Dr. Irwin remarked that he had never been much afraid of secondary haemorrhage in private practice, but in the field he dreaded it seriously. He thought that the tendency to secondary haemorrhage was due to the generally poor condition of the patient’s system. In consequence of the excitement, fatigues and marches, previous to being wounded, men are not nourished up to the proper standard. All the cases of secondary haemorrhage which he had seen in the field, occurred in men who had been poor conditioned or had previously been run down by sickness. In his experience of secondary haemorrhage, it had generally taken place from the enlargement of smaller arteries; not a sloughing through, or bursting of large arteries and per saltum haemorrhage, but an oozing of fluid, filling the cavity of the wound with blood, and, if not arrested, exhausting the patient. At Chancellorsville he saw a man die, it was said of secondary haemorrhage. But the whole amount of blood lost did not amount to more than a teacupful; and he thought that in a number of instances the secondary haemorrhage accompanying a fatal case was incidental, and not necessarily the cause of death.

Dr. Irwin referred to the use of coal oil as an application to wounds, which, he understood, had been employed to a great extent
at Gettysburg. He would like to hear members, who were there, state their experience in regard to it.

Dr. WHISTON stated that such had been the case. He considered coal oil as a very good disinfectant and deodorizer. In cleanses the wound well, and keeps away flies and vermin; it causes no disagreeable sensation to the patient. In regard to sutures, he had seen at Gettysburg two cases of amputation of the thigh, in which the silver suture was used, unite by first intention.

Dr. CALHOUN greatly preferred the silver suture; it saves time, being readily applied, and is more easily removed. In a recent operation for phymosis, he had, by means of the silver suture, obtained union by first intention throughout.

Dr. KING referred to irrigation of wounded parts by means of a siphon, as requiring constant attention and supervision; it is a most powerful method of applying cold, and unless great care is exercised the vitality of the parts may be lowered to an injurious extent, and the death of the flap may follow. He had seen one instance in which injury had been caused in this way.

Dr. CALHOUN, in calling attention to the importance of keeping the cavities of wounds well cleaned, cited a paper lately published by Dr. J. B. Smith, on resections and amputations, in which Dr. Smith states the good results of introducing a small catheter into the cavity of the wound, to drain it of the offensive pus. In resections of the shoulder, this is of special importance.

Dr. HOUCH related a case of amputation of both legs in a young man, in which both stumps healed by first intention.

At a meeting of the Medical Society of the Surgeons of the 2d Division, 3d Corps, Army of the Potomac, held March 2d, it was voted, "that the essay read by Dr. Jewett, with a report of the discussion following, be forwarded by him to some medical journal for publication."

---

DEATH FOLLOWING THE EXCISION OF A NÆVUS.

BY SAMUEL CAHOOT, M.D., SURGEON TO MASS. GEN. HOSPITAL.

[Read before the Boston Society for Medical Improvement, March 14th, 1864, and communicated for the Boston Medical and Surgical Journal.]

MARCH 8th.—A child 7 months and a few days old was brought to my office for advice, in reference to a vascular tumor (raspberry), situated on the right side of the os frontis, at some distance in front of the coronal suture. As it was increasing rapidly in size, I advised that it should be removed at once, and as it was situated over a smooth bony surface, favorable for the easy arrest of bleeding, I decided to excise, rather than to apply ligature. Assisted by my neighbor, Dr. J. C. White, who kindly attended to the etherization, I cut out the