AN
INAUGURAL DISSERTATION
ON
Ulcuration,

SUBMITTED TO THE
PRESIDENT, BOARD OF TRUSTEES, AND MEDICAL FACULTY
OF THE
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FOR THE DEGREE OF

DOCTOR OF MEDICINE.

BY
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of
Ringgold, Georgia.

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To the
Professor of Surgery in the university

Of surgery in the university

as a grateful acknowledgment of the kind
attentions that have so happily placed
him in the form of place of the profession.

These pages are respectfully
inscribed by
The author.
"Ulceration" is generally defined to be the producing of a purulent solution of continuity of the soft parts of the animal body. Ulcers may arise from a variety of causes, and under various circumstances, the character of ulcer varying almost as much as the cause producing it.

The most common causes of ulcer are inflammation and purpura; many other causes, are mentioned as producing ulceration. Specific poisons, such as syphilitic or scrofulous virus, are known to produce ulceration. The modus operandi appears to be the same, from whatever cause the ulcer is produced, all act first by irritation of the part, causing a premature efflux of blood, thereby inducing congestion of the capillaries, a mechanical obstruction, may thus be occasioned, which embarrasses and interrupts the free circulation in the part, causing Stagnation of
venous blood. Superinducing inflammation, the inflamed
part becomes tumefied, red and painful, the tumefaction
being the result of Serum having been thrown out into
the cellular Tissue, after the inflammation has
Continued for Some Time, Small pimples form on the
surface of the inflamed part, filled with Serous fluid
these pimples gradually discharge their contents, and
inflammation being now thoroughly Set up, continues
Secreting and discharging pus for an indefinite period,
until a permanent cure is effected.

I will now report a case of extensive ulceration as
it occurred in my own case. On the 26th day of
November 1857, I was so unfortunate as to meet with
a Rail Road accident, by which I received a slight
contusion about the middle of the Tibia of the
left leg. The bruise at the time appeared to
be Superficial, producing only a slight degree of
ecchymosis, and causing but very little pain, so I gave
it little or no attention, but attended to my ordinary
business, up to the second night after having received the
injury; on that night I applied some opiodoloe, these
being slight Soarens of the bruise of part of the leg,
I rested as well as usual that night, until a short time
before day, I woke up with my leg paining me very
much, upon rising from bed I found it was with great
pain and difficulty, that I could walk.
Being absent from home, and not wishing to commence
my regular course of treatment, until I could get
home, I made some soothing applications, until I
would reach home, which I did about go clock that
day, I immediately had a neighboring physician
called in and put myself under his treatment,
he used every means in his power to arrest the infla-
mation, which by this time appeared to be fully
established, in the part, with a great tendency to
travel upwards into the muscle of the thigh.
The physician commenced with antiphlogistic treatment viz. bleeding, purgation, low diet, horizontal position, with emollient poultices to the seat of the disease. This treatment was kept up for a few days without any perceptible impression having been made on the disease, the inflammation going on unabated, he called in other physicians, with their combine still they were unable to arrest the inflammation, until it had reached the acetabulum, where it was arrested. During the period the inflammation was proceeding so rapidly, there was the most intense suffering, the pain being of the most excruciating character. The limb become very much swollen, red, and hot, accompanying these symptoms was fever of a very high grade, with occasional delirium. When the inflammation had extended as far up as the knee, the pain ceased, the fever diminished, the part became soft, a line of demarcation formed, the part assumed a darker color, and in a few days
began to slough, which process continued to proceed rapidly, until the entire subcutaneous surface of the limb, as well as the Tibialis anticus, with portions of other muscles, blood vessels and nerves, had sloughed away, leaving the whole anterior part of the Tibia exposed for the space of near twelve inches. In the progress of the inflammation, the artery and veins of the part, were entirely destroyed or obliterated. This must have been the case as the slough extended quite to the Periosteum, and covered the whole space usually occupied by these blood vessels, and no haemorrhage taking place, is evidence that the vessels must have been destroyed, previous to the slough's taking place, as the inflammation passed up towards the body. Several ulcers were formed in the muscles of the thigh, which appeared to burrow beneath the Fascia Femoralis, and
extend themselves towards the os femoris. These ulcers continued to discharge pus very freely for several weeks, and resulted in the entire destruction of the cellular tissue of the part, and the vastus externus, which muscle is entirely wanting in the thigh, not having been reproduced.

During the extension of the inflammation, the nervous system became so much deranged, as to cause an almost entire abolition of sensation, in the affected limb. During the latter stage of the inflammation, vitality appeared to be intensely lost in the ulcers of the thigh, as was evidenced by the insensitivity to strong irritants.

As vitality was restored to the ulcers of the thigh, and the process of reparation commenced, the ulcers healed up very kindly, and in a short time, leaving dark colored
Cicatrices, which remain very tender to the touch, the treatment of the ulcers of the thigh, consisted in injections of Tincture of Myrrh, No. 6, solution of nitrate of silver, with warm emollient poultices, followed by mild dressings of silver. Thus much I have thought proper to say of the ulceration of the thigh.

The main ulcer being on the anterior part of the leg, from the knee to near the ankle joint, which as before mentioned was caused by the sloughing of the soft parts of the anterior part of the leg,

The parts contiguous to the ulcer on the leg, appeared to become almost destitute of life, as several ulcers of vary considerable size formed, near without any apparent cause, one of which, was on the internal malleolus, an other over the os calcis, both of which
continued for a considerable time, and were very
difficult to heal,

As the new formations sprang up in the
ulcer on the leg, in the form of small granules,
which appeared to be enclosed in cells, spread over
the entire surface of the sore, forming granu-
lations, and the cavity was being filled up by
the nutritive processes, the veins might be
very distinctly seen forming on the delicate
membrane covering the granulations, the veins
at first appeared to be much larger than the
same vessels in a sound limb. The capillaries of the
veins were much thinner than those of other
parts, when the limb was placed in a
pendant position, the blood would immediately
trickle down the surface of the sore, and appear
to be extravasated from innumerable points on the
sore, but without any perceptible opening in the
in the vessels, as soon as the limb would again be put in the horizontal position, the bleeding ceased.

A deep cavity was formed by the slough and the great putrefaction of surrounding parts, which extended to the inner part of the leg, forming a sack or pocket, which was constantly filled with pus, which rendered it difficult to heal.

Suppuration and granulation went on regularly, for some time, there being a very copious secretion of cream-like pus, with a drop of healthy flored granulations, from some cause these granulations became flaky or of a spongy texture, lost their florescent color becoming of a light ash color, smooth glary surface, insensible to the touch, but bleeding from the slightest friction or irritation. The character of the pus also changed to a thin watery discharge resembling serum.
This condition of the ulcer continued for a considerable length of time, when by the use of different kinds of remedies, healthy granulations were again produced, and kept up for several weeks; about this time, suppuration became very profuse, and the weather being very warm, the character of the ulcer again changed, to that of an indolent ulcer, appearing loose and flabby, the texture being very spongy, and entirely insensible to the most active caustics.

These changes continued to take place for several months, during all of which time the ulcer appeared to be stationary; as regards the healing process, each successive change, appearing to require more active means to bring the ulcer to its normal condition, the vitality of the part became so much impaired, that even the actual cauterizing would not excite sensation in it.
I will now give the plan of treatment adopted from the time the injury was received, up to the present, as before mentioned. The attending physicians used every means in their power to combat the inflammation, and prevent ulceration, or mortification, but all their efforts were of little avail. A line of demarcation was formed, the part lost its sensibility, large pimpls formed on its surface, which extended into sloughs of considerable size, and at length formed the large ulcer on the leg.

The inflammation still proceeding, and by this time the system appeared to be sinking under the great irritation, pain and fever.

The physicians then changed the course of treatment to that of tonics, stimulants, and narcotics.

For this purpose they gave large portions of Brandy and opium, alternately, every
Two or three hours. This course of treatment was kept up for several days, with the best effects, these being a very marked change in all the bad symptoms. The thirst and dryness of the tongue now abated, the delirium, which up to this time had been an occasional symptom, now entirely disappeared. The fever gradually abated, and the inflammation, which had still been going on in the thigh, now abated, and all the bad symptoms gave way, and convalescence commenced. It may be proper to say that although large quantities of opium were administered, nothing like constipation was produced by it, but on the contrary it was with difficulty that the action of the bowels could be restrained, as the treatment of the ulcers of the thigh has already been given, it is needless to say more on that part of the subject, except to state that
previous to the formation of the ulcers in the thigh, Chloriform was applied over the seat of inflammation, and appeared to have some effect in controlling the inflammation.

But to return to the treatment of the ulcer of the leg, it was treated for the first few days by warm emollient poultices, astringent washes, and after continuing the poultices for some time, they were succeeded by dressings of simple salve, with occasional applications of solution of nitrate of silver, and sometimes nitrate in substances.

This course of treatment answered very well for some time, the sore healed up very kindly, and secreted healthy pus very freely.

After this plan of treatment had been pursued a month or so, the remedy gradually lost its virtue; the sore ceased healing, changed its character, poultices were again resorted to, but with little advantage,
The granulations assumed the character of an indolent ulcer, an effort was now made to heal the ulcer by scabing, for this purpose various remedies were resorted to, solution of acetate of lead, lime water, nitrate of silver, actual canteen absorbent powders, of different kinds, sheet-lead worn over the sore, with a variety of other applications, during the whole course of treatment, allatives of different kinds were used, and the limb kept elevated most of the time, and kept bandaged from the toes to the knee, after trying two or three months to cause a scab to form over the sore, and finding it of no avail I again had recourse to other means, at this time the sore was entirely lifeless, in order to restore sensibility, I made an application of a mixture made by taking the yolk of an egg, with about half that amount of common salt, mix into
a paste, spread into a plaster. This plaster was applied twice a day for about a week, at the end of that time, the ulcer become very tender, and in a short time a fine crop of granulations sprung up, and secreted pus very freely.

The sore was then treated by dressings of simple salve, "made of Bees wax, Mutton Suet, elder bark, with extract of Sframoneum."

In conjunction with this treatment the bandage was kept constantly applied, tightly from the Toes to the Knee,

As an alternative, with this last course of treatment, I used a tincture of the Rhodolea, or Pole root. Under this course of treatment, the ulcer is healing up better than from any previous course, the appearance and form of the sore now, I think it will be entirely well in a few days,
I have in a very hurried and imperfect manner detailed, a case of extensive ulceration, I am well aware there are many imperfections in composition, style, &c., for which I would crave the indulgence of the Trustees, and Faculty, as I have been compelled to write under very embarrassing circumstances, as some of you are aware. I doubt not there are errors which I might have detected had I more time to give the subject,

I regret exceedingly not being able to present a better offering, but such as it is, I submit it to the ordeal through which it is to pass.

John, Jabo,

Nashville, Tennessee

January 26th 1853