Dr. Sandwith, on December 12th, 1860. His countenance was pale and haggard, and indicative of distress. He complained only of pain in the abdomen. No particulars of his history could be obtained, merely that he had been ill about six days only. He was at once put to bed; and on being seen a short time afterwards, was found in a very depressed state. The warmth of the body was greatly reduced; pulse very small and feeble. Abdomen decidedly tumid, but not particularly painful on pressure, except over the region of the bladder, where there was some dulness on percussion. The catheter was introduced, but only a few ounces of urine were withdrawn. A turpentine fomentation was ordered to be applied to the abdomen:—

℞ Ammon. sesquicarb ℈ij; spiritûs æther. nitr. ʒiij; mistura camph. ad ℥viij. M. Fiat mistura, cujus sumat partem 8vam 3tis horis.

℞ Calomel. gr. j; opii gr. ¼. M. Fiat pilula cum singulis dosibus misturæ sumenda.

He was ordered to have three ounces of brandy. There being no evidence of his having had any action of the bowels for several days, a common enema was ordered in the evening.

Dec. 13th. He still remained in a state of collapse. The skin was cold and clammy; the pulse at times scarcely perceptible; state of the abdomen was much the same; there had been no action of the bowels. The enema and purgative were repeated, and a grain of calomel (without opium) was prescribed to be taken every three hours. He was ordered to have wine and brandy *ad libitum*. In the middle of the day he vomited a large worm (*ascaris lumbricoides*).

Vespere. The vomiting continued, but he had thrown up no more worms. Ten grains of calomel in powder were ordered to be taken immediately. He died the same evening at ten p.m.

AUTOPSY, fourteen hours after death. On opening the abdomen a quantity of dirty brown fluid, not having a marked fæcal odour, escaped. There was evidence of intense and general peritonitis. The intestines, especially the small ones, were coated with a thick layer of lymph; and, on peeling it off, their peritoneal coat was found intensely congested. The omentum adhered by effused lymph to the exposed surface of the intestines, and the liver was coated with a layer of the same. On separating the coils of intestine from each other, three worms, similar to the one vomited before death, were found loose in the upper part of the peritoneal cavity. Three more were afterwards found, deep in the cavity of the pelvis. The alimentary canal was removed entire, from the termination of the œsophagus to near the anus. In the stomach were found three more worms; its mucous membrane was healthy (rather pale), and no perforation visible. A stream of water was passed through the rest of the canal for the purpose of ascertaining the existence of an opening, through which the worms must have escaped into the cavity of the abdomen. About the middle of the duodenum such an opening was found (through which the water issued in a tiny stream), about the size of the middle of the body of a full-sized lumbricus, perfectly round, with smooth edges, the lymph on the peritoneal surface extending quite up to its margin. The mucous membrane of the canal throughout was paler than natural, otherwise perfectly healthy; there was some little vascularity in the neighbourhood of the perforation, but to no marked degree. At this part, but below the opening, were found three more worms (making in all thirteen). The bladder was empty and contracted; the other organs were healthy. The large intestines contained hardish lumps of pale yellowish-colored fæcal matter.

There being no evidence of disease in the intestinal canal, beyond what has been mentioned, the probability is, that the worms caused irritation and local inflammation in the canal, ending in ulceration; some of the worms, as well as the contents of the intestine, escaping through the opening into the peritoneal cavity, and setting up general peritonitis.

SCROFULOUS DISEASES OF THE EXTERNAL LYMPHATIC GLANDS:

THEIR NATURE, VARIETY, AND TREATMENT.

By P. C. PRICE, Esq., Surgeon to the Great Northern Hospital; the Metropolitan Infirmary for Scrofulous Children at Margate; etc.

III.—TUBERCULOUS DISEASE OF THE EXTERNAL LYMPHATIC GLANDS.

[*Continued from page* 196.]

III. In adverting to the pathology of tuberculous glands, it was stated that the period at which softening and suppuration occur is influenced by certain conditions which can generally be traced to constitutional and local causes. It was further observed that, although suppuration is a destructive process, it must, nevertheless, be sometimes considered a favourable result, especially when cicatrisation follows, and the general health improves.

Suppuration having led to the destruction of a gland, it is a point for consideration, not merely whether direct surgical treatment should be adopted, but of what such treatment should consist.

From the earliest periods in the history of this disease, it has always been a question, when a lymphatic gland has become disintegrated by the formation of abscess, whether an artificial exit should be made by the surgeon, so as to afford relief, and save the complete destruction of a portion of the investing integument; or whether natural processes should alone procure the elimination of the foreign material? My own practice is to treat a glandular abscess, simple or tubercular, much in the same way as the generality of surgeons treat purulent collections in cellular and other tissues. I am convinced that a judicious resort to surgical means not only saves much suffering and cuts short a troublesome process, but prevents that amount of deformity and disfigurement which so frequently follow the unassisted destruction of a tuberculous glandular abscess, and the subsequent closure of its walls.

During the progress of suppuration, local applications should be applied with extreme discretion. When inflammation renders the affected glands more than ordinarily painful, fomentations and poultices may be of use; but they are productive of more harm than good when the destructive changes are free from such complications. In the treatment of glandular abscess, it is all important to prevent the surrounding areolar tissue from becoming too extensively involved; and, for this reason, it has been recommended to continue the local application of iodine, as (to use the words of a practical writer on scrofula) "it tends to circumscribe suppuration, and prevent the implication of the cellular tissue surrounding the glands, which, if left to itself, generally becomes involved to a considerable extent." The advisability of affording surgical assistance in the generality of cases of glandular abscess being admitted, the following methods may be briefly considered.

a. Caustics. The most distinguished of all modern authorities on scrofulous diseases who recommends the treatment of suppurative tuberculous glands by means of caustic, is M. Baudelocque. This surgeon advises that glandular abscesses should be opened by means of a caustic composed of equal parts of quicklime and caustic potash made into a paste with spirits of wine, and that all the implicated tissues should be destroyed, so that subsequent healing may be satisfactorily accomplished. (*Op. cit.*)

To the general use of caustics for the purpose of opening suppurating glands, I have a decided objection; for I cannot believe that the surgeon is acting wisely in allowing the integument covering organs undergoing such destruction to become so extensively involved. Cases, however, occur where the aid of the surgeon will only be solicited at a period when wholesale destruction has advanced; and then the practice of M. Baudelocque will occasionally be of value. A somewhat modified method of cauterisation, consisting in the limited destruction of that portion of the skin which appears more particularly to sympathise with the deeper mischief, is sometimes attended with beneficial results. I have often employed the potassa fusa to destroy the thinned and diseased integument covering a suppurating gland, in instances where a resort to other means has been declined, or deemed improper. As a rule, however, I believe that, unless the skin be extensively involved, caustic applications are of no decided benefit; but, on the contrary, disappointment frequently follows their inappropriate use.

b. The Knife. A much more precise, less painful, and satisfactory method of evacuating the purulent contents of tubercular glands, is that by means of the knife. On this point, I think, the majority of surgeons, who have paid attention to the treatment of glandular affections, agree. But to enable the practice to be effective, not only as concerns the mere evacuation of the tubercular matter, but the attainment of subsequent healing, and the least possible disfigurement, it is all important that attention should be paid to the following considerations:—Firstly. At what period is it most advisable to give exit to the tubercular matter? Secondly. What should be the nature and extent of the incision, and what subsequent treatment should be adopted to procure healing?

Although, as before stated, the majority of modern surgeons lean to the use of the knife in the treatment of glandular abscess, still an unanimity of opinion does not exist concerning the period at which it should be called into requisition. Some authorities are in favour of early incisions, and some postpone a recourse to the lancet till ulceration and other destructive processes have seriously undermined, not only the structures immediately implicated, but those which should not have been allowed to become more than sympathetically included. When there appears no probability of the absorption of the fluid which has resulted from suppuration of the greater portion of the affected gland, my own practice is to give an exit to it so soon as it can be clearly appreciated, and before the covering integuments have had time to become seriously involved.

But it is not always easy to decide on the exact period at which the knife should be used. Although fluctuation may be detected, it by no means follows that the entire gland is involved in suppuration. Very commonly the suppurative process is limited to the circumference of the organ; and it then becomes a matter of moment whether the surgeon should not somewhat indefinitely postpone interfering, in the hope that the confined fluid will be removed by absorption. Unnecessary delay is, however, often fraught with mischief, and I believe that a hesitating and uncertain policy, as to the expediency of giving exit to the pent-up matter, is productive of more harm than is generally admitted.

Although, as a rule, no definite plan can be enforced for the surgical treatment of such cases, still it is more than probable that a timely incision, so soon as matter has formed is the most judicious practice that can be adopted. If this recommendation be followed, I am confident that not merely will the tendency exhibited by the portion of the gland less seriously affected to undergo further destruction be oftentimes lessened, but it will be placed in a much more satisfactory state for regaining its normal conditions and functions. The advantages of this practice may be seen from the details of the following case.

A lad, aged 10, was lately a patient under my care at the Great Northern Hospital, on account of a tubercular gland situated at the lower part of the right side of the neck. At the time of his application, only the superficial portion of the gland was involved in purulent detruction. Fluctuation being detected, an opening was made in the most depending part which allowed the escape of the fluid. In the course of three days, the wound, which was limited, healed, while a gradual but marked diminution in size of the remaining portion of the gland had taken place.

Where only a single gland is affected, comparatively little difficulty will be experienced; but, unfortunately, it more often happens that a series of glands, either simultaneously or in succession, evince a proneness to pass more or less rapidly into suppuration. Cases of this description call for the closest attention of the surgeon, who will have to watch narrowly that the skin does not become extensively implicated, by reason of the close continuity of the various diseased glands.

The rapidity with which suppuration may take place in instances of glandular tuberculosis has already been noticed, and the sad results which so often follow a neglect of local treatment are too plainly evidenced by the occurrence of tortuous sinuses with hard, unhealthy, and secreting edges, and, if these should ultimately heal, by the disfiguring cicatrices which remain till the skill of the surgeon is called into requisition.

I may quote the following case, as indicating the advantages to be obtained from recourse to early and timely incisions into suppurating glands.

A young gentleman had suffered, when five years of age, from tubercular disease of a small cluster of lymphatic glands, situated near the middle and front of the neck. Softening and suppuration ensued, surgical assistance was too long delayed, and the result is that the part is now disfigured by unsightly scars. When he had arrived at the age of eleven years, he experienced another attack of tubercular inflammation of the lymphatic glands, situated somewhat higher in the neck on the same side. Directly suppuration could be detected, I made a linear incision into the gland, and evacuated the matter. The lips of the wound were carefully adjusted, after sponging out its interior; and complete union ensued. No perceptible cicatrix resulted.

One of the very worst cases which I have seen of neglected tuberculous glands, was admitted into the Children's Infirmary, at Margate, about two years since. The patient was a little girl, about 6 years of age. Not only did the face and neck present one mass of indurated, angry, and discharging ulcers at such parts at which lymphatic glands had been allowed to suppurate and ulcerate, but at the armpits, groins, and bends of the elbows, the same piteous condition existed. This is by no means a solitary instance of the lamentable results which I have known to accrue from a want of judicious care and skill in the surgical treatment of suppurating tubercular lymphatic glands. Although strongly advising a resort to the knife for the purpose of evacuating the contents of a tubercular gland so soon as suppuration has converted the gland-substance into an abscess, and before any considerable amount of thinning has injured the integument covering the diseased organ, yet I still more urgently recommend the division of the implicated structures, no matter how much involved, in preference to admitting further ulceration and more serious destruction. The surgeon must, however, not be disappointed if, even after a moderately early incision, the edges of the wound assume a strictly tuberculous condition. I have frequently experienced such a result; but have generally considered that, had ulceration been allowed to proceed, the amount

of subsequent unhealthy action would have been of a still more formidable character.

Much depends on the fancy of the operator as to the nature and extent of the incision. Some surgeons recommend a very limited one; while others, on the contrary, speak favourably of the advantage of freely carrying the knife through the covering integument. Instead of cutting the tissues, it has been suggested that the purulent matter should be evacuated by means of a puncture with a trochar, care been taken that the wound thus made is closed as rapidly as possible. The advan tages of this plan were forcibly insisted on by Henning. (*Op. cit.*)

Lebert recommends, when exit is to be afforded to the matter resulting from suppuration of a tuberculous gland, that a free opening should be made. (*Op. cit.*)

Dr. Ranking advises that the abscess should be punctured with a broad-shouldered lancet, and that, if necessary, a free incision should be subsequently practised. (*Op. cit.*, p. 259).

Dr. Tyler Smith recommends that "a puncture" should be made into a gland when it has suppurated. (*Op. cit.*, p. 103.)

My own experience is in favour of a limited linear incision when the abscess is small, and there is every prospect of the contained fluid being easily evacuated. When, however, the abscess is extensive, and there is reason to suspect that mingled with the purulent secretion will be found shreds of lymph, only partly disintegrated portions of the gland structure, and cretaceous particles, it will be expedient to resort to a freer incision; but, as it is difficult to foretel the exact condition of the contents of the abscess, I would suggest that the use of the knife be, on all occasions, as conservative as possible, as it is always easy to enlarge the outlet should circumstances point to the necessity of so doing.

But little stress has been laid, even by the best esteemed authorities on scrofula, on the importance of judicious and skilful surgical interference with suppurating glands. Mr. Lloyd, who is precise on some points connected with glandular abscess, only cursorily mentions the puncturing of such, and states that he believes "it is of very little consequence whether a puncture be made or not." (*Op. cit.*, p. 66.)

Although it may be immaterial to some surgeons whether they puncture or incise a glandular abscess, and whether the incisions they practise be limited or free; yet to the patient it is of the very highest importance that the end to be attained be accomplished with as little subsequent disfigurement as possible. I cannot too par ticularly insist on the importance of attending to this requirement, as it is one which oftentimes not only materially affects the personal comfort of the sufferer, but tends to enhance the reputation of the surgeon and the credit of his art.

It is often a point of extreme nicety to decide at what particular part of a glandular abscess the incision should be made. This is a question which cannot be satisfactorily answered, and will need a different interpretation on almost every occasion. As a rule, it is advisable not to wound the skin at such points where the infliction of an injury would be followed with destructive consequences, and subsequent disfigurement. I have frequently tapped glandular abscesses through healthy parts, by what is termed the subcutaneous method, and have every reason to be well satisfied with the result, as, among other advantages, it allows the distressed integument, and the tissues which surround the diseased gland, to regain their normal conditions, when not too extensively implicated.

After an incision into a glandular abscess has been practised, it becomes a question as to what shall be the future treatment. It should always be the aim of the surgeon to procure resolution and healing with as little delay as possible; but, owing to the constitutional peculiarities which commonly modify all local tuberculous manifestations, and the varying and uncertain nature and extent of the local mischief, it is next to impossible to sketch any definite practice. Sometimes it will be expedient at once to close the lips of the incision, after having thoroughly evacuated the contents of the abscess, so that union and obliteration of the cavity may ensue. This will be much aided by recourse to pressure, etc. When the abscess is large, and the integument not seriously implicated, it has been recommended, after clearing out all foreign matter, to inject the cavity with iodine solutions. (Ranking, etc.) This plan sometimes succeeds, but it is more often followed by increased purulent secretion, and then the healing which ensues is by granulation.

Lebert recommends that stagnation of the purulent matter should be prevented by the introduction of a wick (*une méche*) into the cavity, whereby the walls may be stimulated to increased and more healthy action. (*Op. cit.*, p. 172.)

My own practice, when I have failed to procure immediate union of the lips of the wound, and a cessation of further secretion, is to endeavour to close the sides of the abscess as speedily as possible by granulation, etc.; for, if this be not accomplished, unhealthy and obstinate ulcerations with fistulæ will, in all probability, result, and cause not only distress and disfigurement to the patient, but annoyance and trouble to the surgeon.

The further consideration of the subject may be advantageously postponed till the local measures for the healing of tuberculous ulcerations are discussed. I cannot, however, refrain from again urging the importance of constitutional treatment when the system is evidently at fault; for, when such is the case, not only will the employment of mere topical means oftentimes prove unavailing, but positively injurious.

[*To be continued.*]

CASE OF EXTRAVASATION OF URINE: RECOVERY WITHOUT INCISIONS.

By WILLIAM LEGGE, ESQ., Surgeon, Wiveliscombe.

A. B. aged 45, a butcher, of highly nervous temperament and irregular habits, first consulted me in October, 1859, for stricture of the urethra of long standing.

The history of the case was obscure. He had evidently suffered from urinary abscess; and there was a fistulous opening in the perinæum from which urine occasionally dribbled; this had existed some three months before I was called to see him for retention of urine. With some considerable difficulty, and at the expense of some time and patience from the irritable sensitiveness of the subject, I passed a No. 1 silver catheter, and relieved the bladder. There were two evident obstructions of the canal; one about three-fourths of an inch from the meatus, the other just anterior to the membranous portion of the urethra, giving the sensation of cartilaginous induration. The instrument was so tightly grasped, that to push it forward after feeling it had passed the strictures was difficult; and even after it had been left in twenty-four hours, there was great resistance to its withdrawal.

For more than two months I persevered in daily passing instruments, and only by that time reaching No. 4, I was anxious to use Mr. Holt's dilator, which I have seen so successfully employed by him at Westminster Hospital; but my patient, (who was the most refractory I ever encountered and who dreaded everything like an operation) refused further treatment, persisting that he was sufficiently relieved, and, despite my warnings, persisting also in drinking.