ON THE DIAGNOSIS OF INFLAMMATORY DISEASES OF THE CERVIX UTERI;

AND ON THE USE OF POTASSA FUSA OR POTASSA CUM CALCE
IN THEIR TREATMENT.

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It is not my intention in the following paper to enter at length into the consideration of the symptoms of Inflammatory Disease of the Neck of the Uterus, but merely to give a brief and concise analysis of those symptoms, and of those moral rules which guide me in the cases requiring surgical examination and treatment. In the second edition of my work on *Uterine Inflammation*, I have already described the semeiology of these affections at such length, and with so strict an adherence to nature, that it would be mere repetition to do more. Indeed, although I have now had several years' additional experience since it was written, I find that I have but little to add, and nothing to alter.

The discussions which have taken place in this Society during the present session, have painfully convinced me that a less elaborate and more concise statement of the rules which I follow myself, and which I have laid down in the above-mentioned work for the guidance of others, in the diagnosis and treatment of these diseases, is required to justify my practice. My name and authority have been positively appealed to, as a sanction for the surgical scrutiny of the uterine organs of many hundred females who had no uterine disease; and this extensive scrutiny appears only to have led to the discovery of a limited number of instances of disease, so slight as to give way to mere injections and general treatment. Now I must be allowed, before I proceed, most emphatically and most solemnly to repudiate any connexion, as an author or as a practitioner, with such unheard of and such unwarrantable practice. The rules of diagnosis which I have given are meant to lead to the recognition of positive disease, and not to sanction the satisfaction of a morbid curiosity as to the state of organs, which there is no excuse for bringing into view by surgical means, unless we have the conviction that they are the seat of disease, and of disease not to be cured by other than surgical appliances. That the conscientious application of these rules by all practitioners, imbued with a due sense of the great responsibility of their position, does lead, all but invariably, to the recognition of such disease, is proved by my experience, and by that of hosts of talented practitioners, whom I may claim as converts to my views, and whose names I could mention, were it necessary. I may safely say, that I do not make an instrumental examination of the uterine organs once in six months, without finding sufficient disease to justify the step, so careful am I first, by oral inquiry, to be all but certain that disease really exists. Indeed, the mistakes I myself make are generally on the other side; for it not unfrequently occurs, that after treating a patient in vain by general means for several months, without making a surgical examination, on account of the obscurity of the local symp-

toms, I at last find a key to the failure in the existence of local disease, which I did not at first consider myself warranted in looking for. That such will generally be the case I am convinced, however fully the pathological views I defend may be adopted,—at least with all conscientious practitioners, who treat with due respect the females who entrust themselves to their care; and who, acting thus, are as careful and as mindful of the delicacy and the feelings of the patients who come under their notice as claimants on the funds of medical charities, as of those belonging to the higher ranks of society. With a conscientious observance on the part of the profession of those moral scruples which guide surgeons in all painful and repulsive surgical examinations, such, for instance, as that on the bladder for stone, or on the rectum for polypus or fistula, there will be always more risk of uterine disease being overlooked, than of undue interference with the female organisation.

It is for the heads of the profession, for those who take upon themselves to guide their fellow practitioners, to prevent *abuse*, by accepting the legitimate and rational *use* of those surgical modes of exploration and treatment, which modern research has proved to be absolutely necessary to restore the uterine organs to integrity, in a very numerous and distressing class of diseases. This few have as yet done. Some, appealing to their past experience, which, however extensive, is in reality valueless, when brought to bear on newly-developed pathological facts with which they were unacquainted at the time it was gained, have boldly and openly negatived the facts and doctrines I have brought forward; others have attempted to investigate the subject, but, for want of practice in the necessary instrumental explorations, have often failed to detect disease when present,—a circumstance which I am continually seeing exemplified; whilst one or two, by an indiscriminate and senseless abuse of these means of exploration, have fairly exposed themselves to the inculcation of having abused them to an extent of which the records of the profession, either at home or abroad, can afford no parallel. Craving indulgence for these preliminary remarks, I will now proceed to the consideration of the subjects upon which I more especially wish to dwell.

The cervix uteri and its cavity are lined by a mucous membrane, highly organised, and abundantly supplied with mucous follicles, which is very liable to take on inflammatory action, like all other functionally exposed mucous membranes, and to subsequently become the seat of inflammatory ulceration. This important pathological fact, which has only recently been brought to light on the continent by the instrumental exploration of the organ, was not acknowledged or acted upon in this country, when I first drew the attention of the profession to it some years ago. At the same time, its recognition is of the most vital importance to science and humanity, as, in uterine pathology, all is and must remain in inextricable error and confusion, if it be repudiated. The frequency of ulceration in this region, in well marked cases of disease, as compared with other uterine lesions, is, indeed, so great, that out of 243 cases of inflammation of the uterus or its neck, treated by me at the Western General Dispensary, and given at the end of my work, ulceration of the latter part existed in 222. The

explanation of the frequency of ulceration in the cases examined by me is to be found in the facts, firstly, that slight fugitive catarrhal inflammation in this region often no doubt occurs, but without giving rise to sufficiently marked symptoms, local or general, to warrant any kind of local examination at the hands of a really scrupulous observer, such as I trust I may claim to be, and consequently is not often seen by him; and, secondly, that when inflammation does not subside spontaneously, it is aggravated by each successive menstrual congestion,—menstruation feeding uterine inflammation, and exercising a most pernicious influence over it in the great majority of cases; and thus is called into action the peculiar liability to ulceration presented by this mucous membrane. The tendency in this region to the perpetuation of inflammatory and ulcerative disease, when once it has manifested itself, is certainly most remarkable; it is greater even than in the fauces, and impresses upon the inflammatory affections of the cervix and its cavity many of their peculiar characteristics. Indeed, it is owing to the obstinacy, and to the intractable nature of the disease in those cases which alone ought to come under the *eye* of the practitioner, that surgical appliances, and consequently surgical examinations, become necessary.

The symptoms presented by patients suffering from inflammation and inflammatory ulceration of the cervix uteri, may be summarily divided into local and general. The local symptoms are: pains in the lumbo-dorsal, ovarian, and hypogastric regions, and down the thighs, with, in some instances, difficulty of walking; a sensation of bearing down on standing or moving; vaginal discharges; modifications of the menstruation, giving rise to dysmenorrhœa, menorrhagia, or amenorrhœa; constipation or diarrhœa; and irritability of the bladder. The general symptoms are principally dyspeptic, neuralgic, and hysterical conditions; entailing, secondarily, defective general nutrition, and consequent debility and anæmia.

All these symptoms, local and general, have been analysed so minutely in my work on Uterine Inflammation, that it is unnecessary for me to do more than to enumerate them. Were they always combined in each patient, nothing would be easier than the diagnosis of the disease; but such is by no means the case. Sometimes well marked local symptoms of disease will exist for years, without any general reaction, the general functions and health resisting and remaining good. In other instances, with the same amount of disease, there will scarcely be any local evidence of its presence, but the health will fail from the first, the disordered general condition resisting every means of treatment, until the local disease be treated and removed. These are the difficult cases in practice. From the extensive connexion between the nervous system of the uterus and other parts of the sympathetic and cerebro-spinal systems, the general morbid reactions to which disease of the uterus may give rise are protean. There is scarcely an organ in the economy, or any portion of the cerebro-spinal nervous system, which may not be sympathetically affected when uterine disease, and more especially inflammatory ulceration of the cervix, exists. Such being the case, it behoves us, in chronic general derangement of health in the female, not to omit analysing the state of the uterine organs; and, if the general morbid condition prove intractable, not

yielding to those medicinal and hygienic means which, in such conditions, are *habitually successful*, we are warranted in suspecting uterine disease, and in investigating the state of the uterine organs, provided one or more of the local symptoms enumerated be decidedly and constantly present.

If, in obscure cases, these elements of diagnosis are conscientiously and carefully weighed and acted on, without rashness or precipitation, the patient having the benefit of any doubt,—that is, being first treated generally, and by simple local means, such as injections, etc., if the local symptoms are so slight as to render the existence of decided uterine disease dubious,—very few errors of diagnosis will be committed, and very few females will be submitted to surgical examination who are free from disease, or only present such slight morbid conditions as not to require surgical assistance.

Were inflammatory and ulcerative disease of the cervix always limited to the external region of the uterine neck, and were it always discovered and treated before induration and hypertrophy had taken place, and before the ulcerative process had become chronic and confirmed, simple non-surgical means of local treatment, and attention to the general health, would no doubt suffice to cure the greater number of those so affected. But such is very far from being the case. Owing to the frequently obscure nature of the local symptoms, and to the length of time during which the disease may exist before it reacts sensibly on the general health, it has generally long been present when complained of and discovered, and has thus become so deep-seated and confirmed, and has given rise to so many structural changes, that surgical treatment alone can remove it; and hence the unavoidable necessity for the use of the speculum, in aid of treatment as well as of diagnosis. Moreover, there is an important feature in the history of these affections, which would be of itself sufficient to convince the most prejudiced of the necessity of surgical interference, were they to carefully observe nature, and not merely to reason on past experience, which, as I have already stated, is useless when new facts are brought forward. I allude to the circumstance of the inflammatory and ulcerative element, in the immense majority of cases, passing into the os and cervical canal. Owing to this very general extension of disease to a region which is beyond the reach of mere injections, these latter remedies, the only efficient local means of treatment that can be used without instrumental assistance, are, as a general rule, powerless to eradicate the disease. Indeed, we might as well try to cure gonorrhœa in the male by merely washing the gland with medicated lotions.

When properly used, however, injections invariably do a great deal of good; they remove inflammation and congestion of the vulva and vagina, diminish and limit the cervical inflammation, and, in some instances, lead to the healing of the more external and exposed part of the ulcerated surface. If, at the same time, strict attention is paid to the digestive functions, and to the health generally, the patient generally improves; the leucorrhœa, if present, is arrested; she loses many of the symptoms from which she is suffering, or at least they become mitigated; and both she and her medical attendant think that the morbid state is subdued. As soon, however, as the patient is left to herself, the disease, which has only been modified, not cured, begins to regain the

ground it had lost. Each successive menstrual period aggravates the symptoms, and in the course of a few months, the patient finds herself as bad as, or worse than before she was treated. She then, probably, consults some other practitioner, leaving her former attendant in the happy belief that he has cured her.

To resume: the physical examination of the uterine organs may be not only warranted, but rendered necessary by the presence of the local or general symptoms enumerated. If all, or nearly all the local symptoms I have mentioned are present, the case is a model one, respecting the nature of which there can be no doubt; and, as the local lesions are nearly invariably such as to require surgical treatment, the sooner the state of the patient is thoroughly cleared up the better. If one only of the local symptoms is present, but constantly present, and in a marked manner, and general symptoms are met with which do not give way to properly conducted treatment, there is also sufficient reason to suppose that local disease exists to warrant an examination. The mere existence, however, of disordered general health in a female, of dyspeptic and nervous symptoms, of debility and anæmia, is no proof whatever that she is labouring under uterine disease. These conditions may be the sympathetic result of scores of morbid causes and diseases.

The practitioner having thus acquired, by a careful oral analysis of his patient's symptoms, or, if in doubt, by the test of treatment, the conviction that she is labouring under decided uterine disease, what is the next step to be taken? Is she to be at once examined with the speculum? Most undoubtedly, most unquestionably not, until the state of the uterine organs has been ascertained by a digital examination. The condition of the body of the uterus, its size and position, can only be ascertained by the finger; and this may also be considered the best guide as to whether an instrumental examination be required or not. As I have elsewhere stated, when the mucous membrane covering the cervix uteri is ulcerated, the ulceration nearly invariably occupies the circumference of the os into which it dips, and which is more or less patent. Simple inflammation also, passing into the cervical canal, expands and dilates the os. Hence we have a very valuable diagnostic rule, which is now my principal guide as to the necessity for a specular examination. The latter I consider indicated and warranted, whenever the os is sufficiently open to admit the end of the finger. When this is the case, there may be either ulceration requiring local surgical treatment, or inflammation passing into the cervical cavity, which also necessitates surgical appliances. I would likewise add, as requiring instrumental examination, the cases in which the finger detects marked induration and hypertrophy of the cervix. When these latter conditions exist, it is impossible to judge what precise course of treatment is to be followed, unless the diseased parts be brought into view. The open state of the os is a most invaluable guide as to the presence of inflammatory disease, and the fact of its being so ought to be generally known. It is mentioned by Pauly in his edition of *Lisfranc's Lectures*, but has been lost sight of by French writers, and is generally, if not always, only alluded to by them as a physiological condition, which it is not. It is only within the last few years, that I have myself appreciated its great importance as a means of diagnosis. The os uteri, in

the healthy state, is perceptible to the finger as it passes over it, but the finger, or even its tip, does not pass into it; and, if it does, we are warranted in suspecting disease, unless the patient be pregnant, or recently confined, or the uterus be aggrandised by the presence of a fibrous tumour, etc.

When an instrumental examination has been decided on, it must be efficiently made. Whatever speculum may be used, the result cannot be considered satisfactory, unless the entire organ be brought within the field of vision, and unless it be so illuminated by daylight that a speck of dust would be visible, on any part of its surface. If the os be very open also, a bivalve speculum will alone enable the practitioner to correctly examine the state of the parts. By the expansion of its valves, the open lips of the os can be separated so as to allow the eye to penetrate more or less into the cervical canal, especially if, at the same time, these lips are depressed or elevated with the uterine sound. For a practitioner to state that he is never able to bring into view the interior of the cervical canal, with the assistance of the above rules, when the os is morbidly open, is merely to acknowledge his want of surgical dexterity or practice. Such an assertion proves, at the same time, that a host of important lesions must have escaped notice.

The cases for examination having been thus properly selected, and the investigation having been carefully and efficiently carried out, we find that the lesions brought to light are those which characterise subacute and chronic inflammation of mucous membranes in any and every part of the economy, including ulceration, which is found to exist in the great majority of cases. This latter assertion has been contested and even denied, but without any real foundation. Some of those who have taken this position, have done so from positive ignorance; they have attempted to negative facts, the result of extensive and amply corroborated experience, without endeavouring to test those facts. Others, not able to deny the frequent existence of inflammatory lesions in this region, have asserted that these lesions are seldom or never ulcerative, and that they constitute a form of granular inflammation. No one as yet, however, has deigned to give a definition of what this nondescript granular inflammation really is. French pathologists, and myself, following in their footsteps, have described as granular inflammation of the cervix uteri, a morbid state characterised by chronic inflammation of the mucous membrane, and of the mucous follicles with which it is studded, without abrasion or erosion of the epithelium,—in a word, without ulceration. When the cervix presents this form of the disease, the inflamed and hypertrophied follicles stand out prominently, and give to the organ a kind of strawberry appearance. Some of these follicles are occasionally ulcerated, forming small separate aphthous sores; but this is rarely the case.

In common with the continental pathologists who have preceded me in the study of these diseases, I give the name of ulceration to a state characterised by the absence of the epithelium, as the result of a morbid action, and by the presence of erectile granulations, similar to those which cover all granulating sores or wounds healing by the second intention. It is of little importance whether these granulations are so small as to be microscopic, or so large as to be fungous; in both cases the morbid condition is identical; in both cases there is loss of

substance, although there may be no excavated surface or raised margin; although even the granulations may overtop the surrounding surface. Indeed, we see this occurring daily, in all suppurating sores on the skin, as well as in the deeper tissues. That there is loss of substance, becomes evident if a granulating surface like this is submitted to maceration after death, as is seen in a pathological specimen, consisting of the uterus of the young virgin female whose case I have narrated in my work. In the diseased region there is found evident loss of substance, an *excavated* ulceration of the mucous surface surrounding the os. The mucous membrane is absolutely destroyed in some places, and the proper tissue of the cervix underneath neatly dissected out. How it can be said that there is no proof before the profession of inflammatory ulceration of the cervix in the virgin, considering the publicity given to this case, I cannot conceive. Moreover, this case is not mine, but one supplied to me by my late colleague, Mr. Anderson, the senior-surgeon to the Western General Dispensary. I have no hesitation in saying that, in this instance, during life, the evident loss of substance was certainly concealed by the erectile granulations (pus and sanies-secreting), which cover all suppurating sores; and that, consequently, according to the "new pathologists", it would have had to be called a granular inflammation. In the wax model of inflammatory ulceration, the condition during life of such a surface is well demonstrated.¹

That the views, which I have just explained, agree with the definitions of ulceration given by the most classical writers, will be evident to any one who gives himself the trouble to refer to them. Thus, to cite only two or three authorities, Samuel Cooper says, that "ulceration is the process by which sores or ulcers are produced in animal bodies"; Boyer, that "an ulceration is a solution of continuity of the soft parts, more or less ancient, accompanied by a purulent secretion, and kept up by some local or internal cause"; J. L. Petit, that "an ulceration is a solution of continuity, from which is secreted pus, or a puriform, sanious, or other matter."

With reference to inflammatory ulceration in virgins, I can only repeat what I have stated elsewhere, that I am never without well-marked cases under my care, and that, in the results obtained, these cases are amongst the most satisfactory that I am called upon to treat; young females, to whom life had been a burden for years, and who had lost hope, being frequently restored to robust health. I do not mean to say, for a moment, that such forms of disease are common, but that they exist; and, in large consulting practices, they must be not unfrequently met with. If I have myself seen so many, it is, no doubt, from the circumstance of my having been the first to direct the attention of the medical profession to the existence of such disease. Thence it is, that I am frequently appealed to in cases in which it is suspected. At the same time, I now most emphatically repeat what I stated when I first made my views known: that I consider that a surgical investigation, in such cases, ought to be adopted only as a last resource,—as one that ought not even to be thought of, until every pos-

¹ The diseased uterus, above referred to, and the wax model, were exhibited to the Society.

sible and available means of treatment has been tried, and has failed ; and until it is evident that the patient is doomed to hopeless misery, unless the disease, which is known to exist, be brought to light and grappled with. Then, and then only, is the medical attendant authorised to contemplate such a step ; and, even then, the responsibility is so great, that, as I have stated, it ought to be shared, and a consultation held, unless the practitioner be himself a consulting accoucheur, and sufficiently confident in his own experience and judgment to assume the entire responsibility of his conduct. This is the advice which I have ever impressed, in all my writings on the subject. I can also most positively say that, although I have treated many patients of this class, I have never made a physical examination in a virgin female, in a single instance, unless the patient had been treated in vain for years by others, or for months by myself, by means directed both to the uterine and to the general symptoms.

The treatment of the local element in inflammatory affections of the neck of the uterus, which I adopt, may be given in a few words ; it is the treatment followed in all chronic inflammatory diseases situated in a position attainable by surgical means. If there be any acute or subacute inflammation present, it must be subdued by antiphlogistics and astringents. When once this has been accomplished, the morbid action still persisting must be modified and converted into healthy vital action by stimulants. Thus, in the first stage of treatment, we use emollients, leeches, and astringent lotions ; in the second, we apply to the diseased surface caustics, in order, secondarily, to set up healthy action. The eschar, which they produce, is eliminated and thrown off by a process of vital inflammation, which tends to restore the healthy condition of the diseased surface. The intensity of the stimulant to be used depends on the chronicity and sluggishness of the disease, and on its resistance to therapeutic means. In recent and slight cases, the nitrate of silver is sufficient ; but when the morbid state penetrates below the surface, and the submucous tissues are diseased and hypertrophied, it is generally insufficient, and stronger agents, agents which produce a greater reaction, are required. Then it is that the mineral acids should be used. Occasionally, however, even these fail when the disease has existed many years, and there is considerable deep-seated chronic inflammation and hypertrophy. It is in such instances that *potassa fusa*, or *potassa cum calce*, proves a most invaluable remedy ; inasmuch as, by its means, any amount of vital reaction, that is required, can be obtained. Since I have known its use, that is, for the last fourteen years, I have not met with any case of inflammatory disease of the cervix which has not eventually given way. But it is more especially since I have simplified the application of *potassa cum calce*, by running it into fine cylinders, like those of nitrate of silver, that it has proved invaluable to me ; inasmuch as it has thus been rendered nearly as easy of use, and as free from risk in application, as the nitrate of silver ; moreover, it may thus be much more easily graduated at the will of the operator. I must, however, again impress on my hearers that I never apply *potassa cum calce* to destroy tissues, but merely to set up healthy eliminatory inflammation, under the in-

fluence of which, indurated and hypertrophied tissues melt and are resolved, and morbid surfaces become healthy and heal.

I was induced, some years ago, empirically to apply, with great caution, the smallest sized potassa cum calce cylinders to the cervical canal, in intractable inflammation, as a last resource; and with great success. This success I now attribute to the fact of its reaching, by its more powerful action, the inflamed mucous follicles which lie between the radiations of the arbor vitæ, and are thus subtracted from the influence of milder agents.

Potassa fusa was first introduced as a remedy in these forms of uterine inflammation by M. Gendrin of Paris, but had not been adopted by the profession when I left that city, nine years ago; although, I believe, it has since been more favourably received. I can myself claim the merit of having introduced it into practice in this country, and of having simplified its use as above mentioned. I am continually using it with proper precaution, avoiding scrupulously the acute or sub-acute stages of disease, and never meet with any accident. I may say the same, as far as I am aware, of the numerous practitioners who have adopted it, throughout the country, on my recommendation. I must, however, caution those who would use it inside the os, to apply it very gently, and to guard against the too great closing of the cervical orifice, as the surface touched heals. For want of these precautions, in several cases treated in the country, in which I have been consulted, the os uteri has been all but closed. The dilatation of the contracted os is always easily accomplished when this is the case, by means of graduated bougies; but each contraction had better be prevented by proper judgment and care in the first treatment of the patient.

9, Cambridge Square, Hyde Park, April 1851.

BIBLIOGRAPHICAL RECORD.

ANNUAL ADDRESS DELIVERED BEFORE THE HUNTERIAN SOCIETY OF LONDON, Feb. 19th, 1851. By JOHN C. W. LEVER, M.D., Physician-Accoucheur to, and Lecturer on Midwifery at, Guy's Hospital. Printed for the Author. 8vo, pp. 23. Southwark (London): 1851.

PUERPERAL FEVER is the subject of this address; and it is very ably and very instructively handled by the author. Dr. LEVER's opinions being those of an accurate, independent, and accomplished observer, and being based on a twenty years' experience, in a very wide field of observation, have special claims upon the notice of the profession. They coincide, to a great extent, with the views of Dr. Fergusson, as to the nature of the different forms of the disease; of Mr. Nunneley, as to the relationship between puerperal fever and erysipelas; and of Drs. Simpson and Henry Kennedy, as to the analogy between surgical and puerperal fever.¹ Dr. Lever emphatically reprobates the recklessness of those practitioners who attend women in labour, immediately after dressing erysipelatous sores, performing *post-mortem* examinations, or visiting those labouring under puerperal fever, or bad forms of erysipelas. He thus concludes his remarks on this subject: "So convinced am I of the contagiousness of this disease, that I confess I have no

¹ LONDON JOURNAL OF MEDICINE for January 1851, p. 77.