Lectures on Surgical Pathology. Dr. Atlee mentions a very interesting case where this change had taken place in a fibroid.

He first saw the case in July 1852, when a large fibrous tumour, of the size of a seven months impregnated uterus, was diagnosed. In the September following, the tumour had greatly enlarged, and exceeded in size that of gestation at the full period; and the upper part of the abdomen had become elastic, and fluctuation was evident. In the October following, two large cysts were tapped, giving exit in the first to three pints of a dark coloured fluid, with a small quantity of blood. From the second cyst, the same quantity of clear transparent fluid was drawn. On manipulation now, the original fibrous tumour was readily felt. Although several mishaps occurred in the progress of this case—air entering within the sacs, and subsequently fetid serum and gases were drawn out by tapping, it ultimately did well, all traces of the tumour having disappeared. (*Surgical Treatment of Fibrous Tumours, Transactions of American Medical Association*, vol. vi, p. 558.)

Dr. Jackson (*Boston Medical and Surgical Journal*) relates an example of multilocular cyst developed in the fundus of the uterus.

The symptoms during life were those of a fibroid. This patient was tapped several times. The cysts varied from the size of a walnut to that of a foetal head. These cysts contained variously coloured fluids.

The French authors mention several examples of this disease also.

M. Barth (*Bull. Soc. Anat.*, xxvii, 55) found an abdominal tumour attached, and taking origin in the posterior wall of the uterus, which was very large. It was a fibrous tumour, furnished also with a cyst in its interior, and holding within it about half a gallon (3 litres) of a citrinous albuminous liquid. There were two other small fibroids in the anterior wall, one in the fundus.

M. Gaubier (*Bull. Soc. Anat.*, xv, 234) describes a case, also mistaken for ovarian disease, in which a large three-lobed fibroid, of two pounds weight, filled the greater part of the iliac fossa, in which cysts were found containing a bloody serosity. M. Rotureau (*ib.*, p. 135) mentions another case, also mistaken for ovarian disease, where a fluctuating tumour existed in the right iliac fossa, and was found after death to be a pedunculated fibroid, with cysts attached to the fundus. Another is mentioned by M. Icery (*ibid.*, xxviii, 135), where ovarian and uterine cysts coexisted. The uterine cyst was very large, with thick parietes attached to the organ. M. Rieux (*ib.*, xxiv, 19) gives an account where cysts of the uterus were found. The patient was tapped three times. The diagnosis during life was cancer with ascites. The *post mortem* examination revealed a fibrous tumour, with a unilocular cyst, filling the abdominal cavity.

In the table which I have prepared to illustrate the effects of gastrotomy in fibrous tumours, several cases by Messrs. Brown, Wells, Hakes, Fletcher, etc., are recorded, and, with those before given will suffice as examples occurring in British practice.

[To be continued.]

DEATHS FROM FEVER. Within the brief period of seven months three physicians, who have successively occupied the responsible position of medical superintendent of the Dundee Royal Infirmary, have been cut down by fever; and of this disease the matron has quite recently died. The professional loss sustained by the deaths of Dr. Glen Dr. Hamilton, and Dr. Grant is very great. (*Edinburgh Med. Journal.*)

Lectures

ON

CERTAIN MUTUAL RELATIONS OF PHYSIOLOGY, PATHOLOGY, AND THE PRACTICE OF MEDICINE.

BY

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LECTURE III. (Continued.)

On the Pathology and Treatment of Certain Forms of Delirium. Therapeutics. The Physiological and Therapeutic Action of Alcohol. The Present State of Therapeutics, and the Direction which Therapeutical Inquiries should take, etc.

BUT, passing from this subject of pathology, I must come to the more direct object of my concluding remarks, therapeutics; and, perhaps, I could have no better example of the improvement that has taken place, in their practical application, than in reference to the very symptom to which I have just referred. Is it not true that fewer cases of violent delirium are met with at the present day than was formerly the case? that in our surgical wards the occurrence of traumatic delirium is comparatively rare? and are not these results to be attributed to that modification in treatment, which has led both the physician and the surgeon to maintain a due nutrition of the body, wherever injuries are to be repaired, or disease controlled? And here I would remark on the importance, not only in disease, but in the treatment of all accidental lesions, of endeavouring to anticipate symptoms which may arise and complicate the case, by an early recognition of the pathological state of the various organs of the body. In the treatment of all cases of acute disease, a knowledge of this kind is of the greatest importance to the physician, for upon it will depend the nature of the treatment by which the local affection shall be met; and is not this knowledge of equal importance to the surgeon in dealing with an accidental lesion? Do we not sometimes see that a patient, ignorant of some existing organic disease, nay, thinking himself in a state of perfect health, meets with an accident of a more or less grave character, but which necessarily confines him to his house, his sofa, or his bed; that this interference with his usual habits of life, and the depressing influence which necessarily ensues, becomes the means of accelerating the progress of the existing disease, or, if there be a feeble or fatty heart, acts as the determining cause of sudden death. Nor should we forget, in the application of therapeutic measures, the way in which this fatty disease of the heart may complicate certain more chronic ailments. Its frequent association with various gouty affections shows us the importance of caution, in the administration of depressing remedies in these conditions, and the danger we may incur by the sudden withdrawal of their habitual stimulants from those who suffer from these gouty attacks.

And here I would remark that one of the great aims of the practice of medicine should ever be to postpone the approach of death. The modes of dying have always formed a subject, not only of phi-

losophical interest, but of great practical importance; and is there one amongst us who will not say, that he is often guided, in his treatment of disease, by a knowledge of the way in which, by the derangement of some physiological process, death is threatened? It is easy to see the application of these principles, in reference to diseases of an acute character; but, perhaps, we are too apt to lose sight of them, in relation to diseases of a more chronic nature; and yet it is probably in these latter, that, although we could not produce results occasionally so striking, in the main our practice would be most successful.

It would be simply impossible, in the scope of a single lecture, to dwell at any length on so large a subject as therapeutics; and the only alternative which remains to me is, to glance in a very cursory manner at some of the leading features which characterise the practice of the present day. And, amongst these, there is nothing more striking than the adoption, especially in the treatment of acute diseases, of a more generous system of diet, and the more frequent administration, in various inflammatory affections, of alcoholic stimulants.

The whole question of the action of alcohol is so closely connected with the subject of my lectures, the remedy is so essentially what I would call a physiological one, it is used in so great a variety of diseases, and under pathological conditions apparently so diverse, but really having therapeutically similar indications, that I have felt I could not pass it over without something more than a mere cursory notice.

Whatever may be our views of the physiological action of alcohol, our belief of its therapeutic value rests on no mere speculative notions, but is supported by the testimony, the observation, and the experience of almost all practitioners of medicine. Like many other remedies, however, our knowledge of its action is imperfect, and we greatly stand in need of correct principles as to its administration. Its general applicability to various conditions of the system, as a potent health-restorer, has been almost universally recognised; and in all ages, physicians have resorted to its use. It is only, however, of late years that it has risen to the position of one of the most important, and most freely used, of our *materia medica*; and that its employment has been sanctioned, and its value demonstrated, in numerous diseases, in which, not only was it previously considered altogether useless, but in which it was thought it would be highly injurious. Both in medical and surgical practice, there can be no doubt that, for some years past, a larger quantity of alcoholic fluids has been used, than during any other equal period in the history of medicine in this country. The statistics of our hospitals would at once prove this. As to the influence it has had on the rate of mortality in these institutions, we cannot now stop to inquire. It would be very satisfactory, if statistics on a large scale could be drawn up, which would show the rate of mortality and the duration of diseases during two given periods—one before, the other since, the present system of treatment has become more general.

But, whilst unable to test the effects produced by alcohol by a direct appeal to statistics, I may, perhaps, be allowed to offer an opinion, founded on a careful observation for some years past

of cases, both in hospital and private practice. Speaking generally, I believe it may be said, that the early administration of alcoholic stimulants has reduced the rate of mortality of some diseases; and that, in a far larger proportion, it has diminished the intensity of the disease and accelerated convalescence.

In expressing my own opinion of the value of alcohol as a therapeutic agent, I would do so with feelings of diffidence. There are, probably, many here who may have had larger opportunities than myself of judging of its value; and they may have arrived at conclusions at variance with my own. At all events, my views have not been formed without careful study and observation. I have seen alcohol used, and I have used it myself, largely. I have given it under circumstances when I could carefully watch its effects; and I have noted the influence it has produced both in acute and chronic diseases.

And here I would lay down a general principle, which is, I think, applicable to all remedial agents; viz., that the therapeutic value of alcohol does not rest on its supposed use as an article of diet, nor on any supposed chemical change it may undergo. It would be very satisfactory to know, by incontrovertible evidence that, after, or whilst, performing its therapeutic action, it was used up in the system, either as a heat or fat producer, or in affording nourishment to the nervous tissue. The establishment of such a fact on a sound basis, would increase our estimate of the usefulness of alcohol; but its value as a therapeutic agent rests on no such assumption, and may be altogether independent of any such assumed action. We may grant all that some chemists have of late advanced; that the substance is not oxidised in the system; that every particle of it is eliminated unchanged; that, contrary to our long cherished notion, it does not form fuel for the combustion process going on in the body—but we do not, by all this, in anywise impugn its therapeutic value, nor is our confidence shaken in its applicability to various conditions of the body, even when taken as an article of habitual use.

Amongst the most important, if not the most important, of the actions of alcohol, in a therapeutic point of view, is the influence it produces on the circulating system. That the administration of alcohol increases the power of the heart, diminishes the frequency of its beat, and augments the force of its contraction, under conditions of debility, are facts which must be familiar to all who are in the habit of prescribing it. And there is nothing more striking, and I will add more satisfactory, than to watch the effects of the remedy in those cases of inflammation, which are denominated asthenic, and which are marked by a rapid and weak pulse.

But the effects which alcohol produces on the circulation cannot be accounted for, I think, simply on the ground that it acts as a stimulant and tonic to the heart. It has been proved by some physiologists, that the introduction of certain substances into the blood has a tendency to increase the rapidity of the circulation, whilst the introduction of others has a directly opposite effect. Amongst the latter is alcohol; and, according to the observations that have been made, when this substance is injected into the vessels of a living animal, there is a retardation of the circulating current, apparently from some physical influence which the alcohol produces, either on

the blood itself, or on the coats of the vessels, or on both. And I would here remark, that when alcohol is taken into the stomach, although we have evidence of increased action of the heart, this by no means proves that the blood is circulating more rapidly through the capillaries of the body. Nay, the very symptoms which follow the administration of a small dose of alcohol—namely, a sensation of fulness and heat of skin—and the congestion which ensues when the dose is increased, tend to prove that there is some impediment to the peripheral circulation. Such a state of capillaries must necessarily give rise to an increased tension of the arterial system, and a fulness of the pulse; more especially when taken in connection with the effects produced on the heart itself by the local action of the alcohol.

It appears to me, that a knowledge of this local action of alcohol on the capillaries, serves to explain, in some measure, the effects which we witness, in certain cases of disease, from its administration.

Is it not true, in certain wasting diseases, in various forms of acute inflammation, where there are rapid changes going on in some particular organ or part—a rapid development of inflammatory products, of serum, of lymph, of pus; that, under the influence of alcoholic fluids, these changes are checked, and the wasting processes arrested?

Now, there can be no doubt that, in these cases of inflammation, the vital changes of the part involved are *too active*. I do not say that the vital powers are *too high*—that there is *increased vitality*; but that the molecular changes of the part are *too rapid*.

When, in such cases, we administer alcohol, we often see a rapid arrest of these changes, and an absorption of the effused products; and I cannot but think that this result is due, not simply to the general influence of the remedy in improving the nutrition of the body, and in giving increased power to the heart; but, also, to its local action on the capillaries and tissues of the affected part.

It is very remarkable to see the large quantities of alcoholic liquids—wine, brandy, etc.—that are borne in disease, and that by persons who have previously taken, whilst in health, but little or none, without any of the ordinary physiological effects being produced—without the occurrence of intoxication, of headache, of furred tongue, or of disturbance of the stomach.

It would take me far beyond the limits of this lecture, were I to attempt to consider the effects produced by alcohol in certain chronic affections; but I cannot dismiss the subject without one or two as to the ordinary use of the agent.

From the influence which it exercises in certain states of disease, indications may be gathered for its use in conditions of health. From the various circumstances of constitution and habits of life, the moderate use of alcoholic beverages appears, in many persons, to be attended with great benefit. Those who argue against the proper use of alcohol from the ill-effects produced by its abuse, appear to me to miss the question entirely; and they might, on like grounds, attack the use of tea or coffee. No doubt, the highest development of physical strength can be obtained without the use of spirits in any form whatever. Could we, indeed, all live the life of the athlete—breathe pure air, take exercise

largely, and keep our digestive organs in such a state as to enable us to digest all the food which the system requires—we might dispense with alcoholic fluids. Whilst, however, men lead sedentary and laborious lives; working their nervous system, and breathing an atmosphere itself depressing; whilst the organs of digestion are scarcely able to perform the work which is required of them in order to supply the waste of tissue which is going on; whilst, even constitutionally, the circulation is languid, and the assimilative processes are weak; a substance, like alcohol, dietetic or medicinal, whatever we may call it, may be used in moderation by many, not only without disadvantage, but with decided benefit. And in forming an opinion of the value of alcohol, we must never lose sight of the fact, that just as the pathological conditions of certain acute diseases modify its physiological action, so the various constitutional defects which, in a large proportion of the population, detract from the standard of perfect health, may be indications for its habitual temperate use.

But, whilst I have expressed my opinion of the value of alcohol in disease, and as an article of diet, I would warn against the danger we may run of indiscriminately using it. It was impossible, in the scope of these lectures, to refer specifically to many modes of treatment, or to the therapeutical value of many remedies; and although I have singled out this particular remedy for a few remarks, in consequence of its present prominent position as a medicinal substance, I would emphatically protest against any extremes with reference to our practice, or any careless administration of the remedy without due consideration of the particular pathological conditions to which it is applicable.

But passing from this subject of alcohol, there is one point in connection with therapeutics on which I cannot refrain from expressing an opinion. I think it is, to a certain extent, a fault of the present day, that we sometimes lose the full benefit of our remedial agents from the simple fact that we prescribe them in too small doses; that the existence of a certain amount of scepticism with reference to the power of drugs, which has crept in, perhaps, as the necessary result of an overweening confidence in their value, has produced, with some, a more or less timidity of practice, which, I venture to think, is injurious. It must often have occurred to most of us, that, in the treatment of a particular case, after trying the ordinary doses of various remedies, all of the same character, without any beneficial results, we have given one in increased doses, and have rapidly produced a therapeutic effect. I have frequently found in cases of ague, that the ordinary doses of quinine have utterly failed; whereas a larger dose has effected a rapid cure. I might illustrate this principle by a reference to cases; but I must not trespass on your time with unnecessary details; one case, however, I cannot refrain from giving, as it shows, in a remarkable manner, the effects which may be produced by pushing a remedy far beyond the ordinary limits.

I had under my care in the Northern Hospital a case of chylous urine, in which I determined to try the effects of gallic acid. I gave it in gradually increasing doses, beginning with ten grains three times a day. But little effect was produced on the disease until the quantity given was two drachms daily,

and then a marked result followed. For nine days, the patient took two drachms of the acid daily; and then, the urine being still slightly turbid and milky, the quantity was increased to two drachms and fifteen grains daily, and was continued for seven days. On the fourth day of this dose being taken, the urine became perfectly natural, and the chylous condition did not return.

Now, had I been content with the ordinary dose of the remedy in this case, I believe that, although I might possibly have cured my patient, the time occupied in the cure would have been much longer than it was. And a very remarkable circumstance occurred in the case, showing the tolerance of the system of this large quantity of acid under the influence of the disease—a tolerance which ceased when the disease was cured. As soon as the urine assumed a healthy character, lithic acid appeared in it in large quantities, a circumstance which had never happened whilst the urine was chylous. The diminution, and subsequent stoppage, of the gallic acid caused a disappearance of the lithic acid deposit, showing the relations which the administration of the one bore to the formation of the other.

[To be continued.]

Illustrations

OF

HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

ST. GEORGE'S HOSPITAL.

HISTORY OF A RECENT EPIDEMIC OF PHAGEDÆNA OR HOSPITAL GANGRENE.

By THOMAS P. PICK, Esq., late Surgical Registrar.

MANY writers have observed that, individual epidemics of phagedæna differ essentially in their characteristics; it becomes, therefore, of interest to the surgeon to note each attack of this disease, so that he may be prepared for any phase in which it may show itself.

St. George's Hospital has, within the last few months, been visited by an epidemic of phagedæna which presents several points of interest, and which differs in many particulars from recorded accounts, particularly those of recent writers, and more especially from those cases recorded by Dr. Macleod as having occurred after the storming of the Redan, in June 1855, and by Dr. Hennen during the Peninsular War.

In order to discuss the subject systematically, it will be advisable to consider it under three heads; 1, the Cause; 2, the Symptoms; and 3, the Treatment of the disease.

1. *Cause.* In 1785, the first accurate description of this disease was given by Mr. Gillespie; and about two years later, Dr. Trotter described the same disease, and distinctly denied its contagious nature; more modern writers, however, have not agreed with this gentlemen. Mr. Blackadder, who wrote largely on this disease, believed in the complaint being *only* communicable by the direct application of the infectious matters to some part of the body from which the cuticle had been removed. The observations of Professor Thomson convincingly prove that hospital gangrene may be communicated by direct contact. He

adduces the following arguments. 1. It may be communicated by sponges, bandages, and clothing to persons at a distance from those infected with it. 2. It has been observed to attack the slightest wounds of surgeons, nurses, and others who were employed in handling and dressing infected persons, and that even in circumstances where the medical man so employed lived some distance from the patient. 3. We are often able to trace its progress distinctly from a single individual through a succession of patients. 4. We are able to prevent the progress of the disease in particular situations, by removing the infected person before the contagion has had time to operate. 5. It continues long in one ward or room without infecting others, if pains be taken to prevent intercourse between the infected and the non-infected.

Though these observations, if correct, remove all doubt as to the contagious character of this disease, there can be no doubt, at the same time, that it is also often due to the agency of some unknown poison, which finds for itself a soil fit for propagation; and I shall endeavour to prove that the late outbreak we have had in this hospital has been entirely due to infectious causes.

And to me there seems nothing incongruous in saying that a disease may be both contagious and infectious; since in all cases the disease is conveyed from one person to another by particles of matter, whether those particles be in a solid or in a gaseous form, whether they be imparted by direct contact of the two human bodies, or wafted through the air.

But the epidemic at present under notice appeared to partake most of an infectious character; and in order to prove this, I shall take the same arguments that Professor Thomson adduced to prove its contagious character in the cases he observed. 1. In no instance was it proved that it was communicated by sponges, bandages, or clothing to persons at a distance from the infected. 2. In no case did it attack any surgeon or nurse, though no special care was taken to guard any slight wounds in those dressing the patients. 3. The disease could not be traced from a single individual through a succession of cases. 4. We were not able to prevent the progress of the disease by removing patients from an infected spot. 5. It did not continue in one ward particularly without infecting others, but invaded the whole house.

The following is a brief sketch of the history of this epidemic, as it occurred among the patients who fell more especially under my notice.

In the early part of March 1863, a woman was admitted into the Hospital for necrosis of the tibia; she was placed on the operating table, and the diseased bone removed; a few days afterwards, the wound took on a phagedænic character; this, however, soon yielded to treatment. Nothing more was seen of this disease for four months. On July 14th, 1863, a patient was admitted into the accident ward, with a slight wound on the leg; on the 21st, seven days after admission, phagedæna attacked the wound. This was the first case which had occurred since March. The following day an out-patient was admitted with phagedæna. Two days afterwards, July 24th, two more cases were admitted, and were placed in separate wards. On the 27th, another case was admitted, and on this day a case broke out in the house; but, strange to say, it did not occur in any of the wards where there were phagedænic patients, but in a private room, where a patient had been totally isolated from the other patients, after undergoing amputation, for fear of the supposed contagious nature of the disease. The next case which was admitted, was on August 3rd (a large gangrenous sore on the back of the arm.) On August 5th, two cases were admitted; on