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General Remarks

ON THE

PRACTICE OF MEDICINE.

BY

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XV.—PAIN.

Remedies for Pain. Anæsthetics. Anodynes.

UPON the all-important subject of Pain and its Remedies, there is still something that I wish to say—a little in the way of speculation, perhaps, but yet soberly. For I cannot help believing that physiological, pathological, and medical research is now at work towards a better knowledge and a better treatment of diseases of the Nervous system, and especially of Pain.

Surprising facts have within these few years become familiar to us respecting insensibility to Pain and the modes of procuring it. Already they have carried with them to the mind and hand of man a knowledge and a power so full of mercy in their use, and so stamped with the character of a divine gift, as to call for praise and thankfulness. Think of the world of Pain that has been spared by the use of chloroform! Think of the lives that have been saved by operations of surgery, which never could have been accomplished without it!

This would, indeed, seem enough, were nothing more to be expected. But there is probably wrapped up in these facts something more yet to be learnt and used for beneficial ends, though it may be of a less splendid sort and pretension. For they must have their own place belonging to them in the sum of our knowledge. And to ascertain what their just place is, and how they fall in with our prior experience of diseases and of remedies would seem to be a first step to any reasonable calculation what more they are likely to teach us.

The observation is as old as Hippocrates (lib. ii, aph. 6), that in states of disease and injury which ought (so to speak) naturally to produce Pain, even extreme Pain, it happens sometimes that none is complained of, and, there is reason to believe, none is felt. But in all such cases, whatever be the present disease or injury sufficient to produce Pain, and yet not producing it, there is, moreover, some present harm sustained by the sensorium. Thus, in the insane, casual hurts and accidents often lead to disease of great amount remaining unnoticed, because uncomplained of. And thus, too, in those who suffer fevers, when they continue long delirious, and so for the time are on a level with the insane, deep ulcers

often appear on the back, or erysipelas spreads over a limb, unaccompanied by the least expression of Pain on the part of the patient.

Here nature offers us her own pattern of things; a sample (as it were) of her own handiwork for us to study. She blunts or she abolishes the perception of Pain; but, in the mean while, she strikes the brain with confusion or incapacity. And it is after this copy that we find ourselves working, whenever we would bring Pain into subjection to the power of medicine. There is nothing which we can administer with such intent but will make itself felt by the sensorium, while it operates remedially upon the suffering part. Be the effect proposed anæsthetic in the completest degree, or anodyne only in the ordinary sense, the sensorium must still be interested.

Hence, when we use such remedies, two things come to be considered and weighed against each other in almost every case; what does the pain need, and what will the brain bear? When all that is needed by the one can be borne by the other, then no restraint is put upon the just use of the remedy. But oftentimes the susceptibility of the brain limits its use to some inadequate measure, or entirely prohibits it. There are some unfortunate cases in which you cannot use opium to abate Pain, because the brain will not bear it.

But an anæsthetic remedy is a new thing under the sun. Therefore let us be sure that we know what it means. And as many things are better understood in contrast or comparison with other things than by themselves alone, so is this. And, therefore, we will still bring the anæsthetic remedy and the anodyne together, and mark the distinction between them; and thus contrive to get a better notion of both.

To make myself better understood, I will define what I mean by an anæsthetic, and what by an anodyne.

The Anæsthetic annuls the capacity of feeling Pain altogether, *without limit* as to its degree. It defies all the powers and methods of torture, all that fire or steel can inflict for the production of Pain.

But the Anodyne mitigates or abolishes Pain *within limits*. Its remedial power is restricted chiefly to Pains which are the adjuncts and consequences of disease. A sharp inflicted hurt from without is enough to break down all the power of defence or resistance it can offer against Pain. Your anodyne has no chance with fire or steel. Chloroform may be taken as the representative of one class of remedies, and opium of the other.

Thus far, tested by their effects upon Pain, the anæsthetic and the anodyne have the same operations in kind—only the one can do more in that kind than the other. The anæsthetic has the greater, the anodyne the less force. Mind, I say, tested *thus far*, and as to the power which each has over Pain.

Well, then, if *thus far* the anæsthetic can do all that

the anodyne can do, and much more, what need have we of both? Why, in our dealing with Pain, should not the remedy which has the greater force be always chosen before that which has the less? And since, for such purpose, the greater force and the greater certainty go together, why should not the anæsthetic entirely supersede the anodyne? Why, as a remedy for Pain, should not chloroform beat opium out of the field? Because, in the very treating of Pain, more is to be taken into account than the mere Pain itself. Because, as aforesaid, the two questions are always to be asked, both, What does the pain need? and, What will the Brain bear? Truly, as regards this intermediate operation upon the Brain, each remedy, anæsthetic as well as anodyne, is tied to its own conditions of doing its proper work. These are such, in the case of the anæsthetic, as will not allow it to fulfil the manifold office of the anodyne; and such, in the case of the anodyne, as will forbid it, by any augmentation of its dose, to reach safely the full power of the anæsthetic.

This sensorial operation is now the thing to be considered.

Prior to experience, one would have thought that, when absolute incapacity of feeling was produced summarily and suddenly at our will, and by an agent at our command, and by one and the same agent, as by chloroform, one would have thought that its sensorial operation would be always the same in every case. But the fact is not so. In one instance, as soon as the insensibility to Pain is complete, and as long as it lasts, there is a profound coma—no sense, no consciousness, no voice, no motion. The lungs respire; the heart contracts; and the blood circulates, telling us that the man is not really dead. The anæsthetic dose is discontinued, and it is not renewed. The sensorium throws off its coma. Sense, consciousness, voice, motion, all return; and with them returns the capacity of suffering Pain. But all has been a blank to the patient, from the moment that the chloroform had its anæsthetic effect to the moment that it lost it.

In another instance, as soon as the insensibility to Pain is complete, and as long as it lasts, there is no coma. Sense, consciousness, voice, motion, all remain; but they exist divorced from the present scene. The man is altogether in some visionary world. He sees and hears and talks with phantoms. But this world is always a happy world, and its phantoms are happy phantoms. And, indeed, it is passing strange to witness the dreadful business of a surgical operation going on, and see something of anguish and doubt and fear in every other countenance, and the patient himself the only person unconcerned and apparently happy. But the anæsthetic dose is not renewed; and its effects are unsustained, and wear themselves out. And then the sensorium wakes up from its dream, and the man returns to the real world; and he brings back with him his senses and his consciousness, his will and his intelligence, to live and dwell and converse again with things as they are. And, moreover, he recovers his capacity of feeling Pain. But he has to be told of all that has happened during his dream.

Ecstasy, trance, somnambulism (for we want a collective term for this class of affections), were things of rare occurrence, until we learnt that the means of producing them were within our own power.

Accordingly, beyond the few striking phenomena, which bear the name, nothing was known about them. The instances were too few to furnish an *experience*. Nobody could tell what conduced to them, or what or how much more than the mere ecstasy, the trance, or the somnambulism, was wrapped up in their essence—what, in short, was the state of internal functions and feelings, what were the capacities and susceptibilities of *pain* in persons so affected.

Whichever of these two remarkable states be induced, the coma or the ecstasy, the anæsthetic effect, which was the thing desired, is equally certain and complete: equally, whether the brain has its actings and its consciousness extinct for the time, or has them still alive and energetic, but under such forms and guises as characterise ecstasy, trance, somnambulism.

The operation of chloroform is one of those things which deserve to be dwelt upon and studied, for the sake of the light it throws upon the effect of medicines which are our daily resource and reliance in the treatment of diseases. Chloroform, administered as an anæsthetic, while it displays much that is properly and exclusively its own, exhibits something that it has in common with other remedies—something, for instance, in which it affords a magnified representation of what occurs whenever we give opium as an anodyne internally. Besides its local effect of abating or abolishing pain, which we desire and aim at, opium has a sensorial effect annexed, which is no part of our purpose, and which we had often rather be without. And it is remarkable that, incident to its operation as an anodyne, the sensorial effect of opium is of two opposite kinds, just as the sensorial effect of chloroform has been shown to be, which is incident to its operation as an anæsthetic.

Opium, administered in sufficient dose to abolish the severer degrees of Pain, such, for instance, as attend the passage of biliary or renal calculus, does not fully compass the purpose until it has made itself powerfully felt by the sensorium in one of two ways, either until it has subdued the sensorium into sleep, or roused it into delirium. The Pain remains in subjection to either of these conditions as long as they last. But when the sensorium awakes up from its sleep, or reposes from its delirium, then the Pain is free to return; and it will return, the cause still existing which first produced it.

But chloroform and opium, both possessing this vast power for the control of Pain, and both exercising it through the sensorium, are nevertheless not convertible remedies. Each can do what the other can not. Each can go beyond the other within the range of its special power. And it is the mode and conditions of their operation upon the sensorium which prevent them from being employed *convertibly* as remedies for Pain.

That appalling impression upon the sensorium, which is essential to its complete anæsthetic effect, chloroform can be made to produce in a minute or two. But the impression does not abide. As in a few minutes it reaches its full amount, so in a few minutes it totally disappears. And if, for the sake of a longer anæsthetic effect, a longer sensorial impression be needed, the chloroform must be applied afresh; and so on again and again. Thus, when we use chloroform for its great purpose of procuring insensibility to pain during a tedious operation, we

seem to be playing upon the sensorium, as it were upon an instrument, sustaining its effect so long as we keep the pressure upon the keys, and letting it subside when we take the pressure off.

Arising spontaneously, or from causes independent of our interference and intention, there are forms of disease, which, in popular language, and, indeed, in medical language, are called Fits. They are of great severity, of great present alarm, and of *short duration*, and belong most frequently to the brain. But Fits, severe as they are, and terrible as they look, and having their root, as they often have, in incurable disease, are themselves seldom fatal. Yet they are so sometimes. A man may die in a Fit. But before this happens, his disease has generally lost the character of a Fit. It has lost its shortness of duration, and its distinctness of attack. Each attack abides longer; and when it is considered to have subsided, something still remains as a memento of it, and occupies the interval until another attack takes place.

Let us take Epilepsy, for instance. Epilepsy is made up of elements which give it, apparently, a fatal stamp. Yet it is not fatal while it retains the character of a Fit; while it is an affair of minutes, or not of more than a quarter of an hour. But when it is lengthened out for half an hour, an hour, or more, it thus loses its character of a Fit, and a fear begins to arise of its proving fatal. Indeed, but for the shortness of its attack, Epilepsy (one would think) must be always fatal.

And, thus, chloroform does not produce its vast impression otherwise than *fitfully*, and the impression itself may be said to consist of Fits of coma or Fits of trance. From its own nature the coma or the trance is ready to pass away every few minutes; but chloroform applied every few minutes succeeds again and again in keeping and retaining it or bringing it back. And numerous Fits procured in this manner serve to give an apparent length and continuity to the impression. But let the impression hold on spontaneously, let it sustain and prolong itself independently, and so lose the fitful character, then peril is nigh at hand.

This sensorial impression, then, produced by chloroform, which looks so formidable, has in its *fitful* character the great condition of its safety. And its subsidence, or inclination to subside, again and again, after being again and again renewed by fresh applications of chloroform for one, or even two hours, is still a condition of its safety.

Doubtless, you can produce as great an impression upon the sensorium by opium, if you only give enough of it, as you can by chloroform; but not an impression as great in degree, and, at the same time, as short in duration. You cannot play upon the sensorium with opium, as you can with chloroform. You cannot urge and take off the pressure of your opium, and so raise, or lower, or stop its effect once produced. Opium once given is gone beyond your power to recall. It must be then left to work according to its nature. And its nature is to exercise its impression, not *fitfully*, but continuously.

Now, *inflicted* Pain is, beyond all experience and conception of Pains, the most severe. No Pain can come near the Pain of the knife. To counteract it, to stop its cry, requires an insensibility which shall equal the insensibility of death. But the world has grown old before the medicine has been found which

can procure the insensibility of death yet not procure death itself. But it is found at last; and that medicine is chloroform; and thus chloroform is peculiarly the remedy of inflicted Pain.

Further, *inflicted* Pain is as short or as long as, guided by the present necessity, we choose to make it. Generally it is short; or if it be long, it is rather several successive inflictions than one continuous Pain. In the meantime, we want to have that deadly insensibility, which is counteractive of it, as much at our command as the injury which we inflict is at our command. To make the insensibility short when we make the injury short, and long when we make the injury long. Chloroform is the medicine which can both procure the insensibility and can put it thus wonderfully at our command. In this respect, also, chloroform is peculiarly the remedy for inflicted Pain.

But opium is no remedy for *inflicted* pain. The conditions of its operation forbid it. Its operation, whether great or small, is always continuous. It can produce the insensibility of death, but not without producing death itself.

Illustrations

OF

HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

LIVERPOOL NORTHERN HOSPITAL.

CASES OF ACUTE DISEASE OF THE CHEST.

Under the care of A. T. H. WATERS, M.D.,
Physician to the Hospital.

[Continued from page 623 of last volume.]

CASE XX. *Pleuropneumonia: Recovery.* Thos. Roscoe, aged 21, a hawker, was admitted into the hospital on December 28th, 1861. The patient stated that he was quite well on December 24th, and was out hawking on that day. On the morning of the 25th, he was suffering so much from pain in the side, that he was unable to leave his bed, which he kept until he was brought to the hospital. Six leeches had been applied to the left side the night before his admission. He said he had been drinking "hard" for about a fortnight before he was taken ill.

When admitted, he complained of pain in the left side, and shortness of breath. The pulse was 116, and hard; the respiration 60 per minute. There was no great heat of skin, but a good deal of general distress. Both lungs were resonant in front, with loud breath-sounds, especially on the right side. The right lung was resonant behind, and there was fine crepitation at the extreme base; elsewhere, the breathing was good. There was loud bronchial breathing, with fine crepitation, over the whole of the back of the left lung, with slight dullness below the level of the spine of the scapula and towards the axilla. The sputum was tenacious and rust-coloured. The urine was free from albumen. He was ordered a calomel and colocynth purge, with a quarter of a grain of antimony in a saline mixture every three hours, and beef-tea for diet.

At 9 p.m., he was breathing very rapidly, with a good deal of distress. The pulse was 110, and strong. He was ordered to take the mixture every two hours.

On the following day (the 29th), he said he felt better, but had not slept. He complained of pain in the side on coughing. The bowels had acted; there