LECTURES ON CLINICAL PRECISION.

Delivered at St. Bartholomew's Hospital.

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II.

GENTLEMEN,—We come now to the patient himself, and you know that accurate notes have to be taken of each case. Some surgeons, to assist in case-taking, have papers prepared with a variety of headings, so as to direct attention to the points which have to be inquired into. For my own part, I think that for the learner it is better he should make out each case for himself without such assistance. He gives more thought to it, and takes more pains over it, than he does if he has merely to tabulate replies under certain fixed headings. His omissions can be filled in when we go over the case together, and his errors, if any, can be corrected.

It is needless to detain you by mentioning, what have been over and over again spoken of, the routine points to be observed; but let me tell you what every report on a case should give, however trivial the trouble of the patient may chance to be. There should be a thorough family history, and even amongst hospital patients this is almost invariably to be had if a little care and trouble be bestowed upon the inquiry. It is of importance to trace the causes of death in the case of parents and of near relatives, such as the brothers and sisters of parents, and this not merely with regard to such troubles as phthisis or cancer, but with reference to other diseases, such as pneumonia or apoplexy. The note should also include the story of the patient's life so far as health or illness is concerned, and should especially refer to ailments which, if once acquired, are apt permanently, or for many years, to affect the system; in writing of a child, the ordinary infantile disorders through which it has passed should be mentioned, and the dates of such affections should be always given. The habits of the patient must also be noticed. Then, coming to the report of the patient's present condition (and remembering that we should always place in the front rank the evidence given by the three great signs—pulse, respiration, and temperature), the state of internal organs must be noticed, the condition of the contents of the thorax and of the abdomen should be reported on, and the urine should be tested, at least for albumen and sugar. In many instances, we are glad to get the help of the physician to perfect some of these inquiries, and, in a word, we endeavour to learn all that is to be made out respecting our patients before deciding upon treatment or before practising an operation.

Now these, no doubt, are points to which attention has at all times been directed; but as a matter of practice, more especially in cases which are looked upon as trivial, but which occasionally culminate in grave disasters, the due attention has not been systematically given to them; and it has been within my knowledge that patients have died, after, for instance, amputation, when some chest-trouble or some renal disease has been found at the *post mortem* examination, and where, if the disease had been diagnosed during life, and its influence had been duly allowed for, it would have been better surgery had no operation been undertaken.

Besides our written notes, there remains some information to be obtained, the character of which is not easily expressed in writing: a sort of judgment we form respecting our patients, based upon experience, and coming out from a number of small signs which we almost unconsciously grasp; something in the look, in the flesh, in the bearing of the patient, which attracts our attention, and prompts us to have a good or a bad opinion of the case, in the latter instance making us careful to reconsider all details before committing ourselves to a definite plan of treatment. A woman was sent up from Dorsetshire, where she lived by the sea, suffering from a knee which had been so loosened by inflammation, that the leg swung helpless from the thigh; the limb was useless. We did all we could for her in the way of apparatus; but it came at last to this: that we were to amputate above the knee. On going through the history of this woman, there was nothing against her, save that her appetite was bad, and the sister reported that she was very fanciful about food. The patient was ill-nourished, and there was that about her, in her looks, in her sluggish bearing, and faint-heartedness, which made me unwilling to operate upon her, and from

time to time the operation, which did not press, was postponed. After the amputation, she was sick, and this sickness persisted during seven days. It then ceased, but returned the next morning, and continued for twenty-seven days (preventing all food assimilation), when she died. Meanwhile, the amputation-wound healed, and had closed before her death. The weak point with this woman was her feeble digestive power, and her history and the ill-defined symptoms we observed should have warned us not to operate; we did, indeed, hesitate, and, had we abstained, we should have done rightly; for directly, through the action of the anæsthetic, the stomach was thrown out of working order, it was totally unable to right itself, and the patient sank from inanition. Thus, when the strain comes, if there be any weak part or organ, it is sure to give way, and hence the need of searching in every feature of a case for signs to enable us to detect the flaws which should weigh against operative interference.

Children especially need careful consideration before being submitted to operations. In all plastic operations, for instance, you must satisfy yourself that the child is sufficiently well nourished, and likely to have strength sufficient to heal the wound. There are times, too, in their early months, as during teething, when operations are less likely to do well; and children who are tainted with syphilis, or children weakened by what may be termed infantile complaints, such as measles or whooping-cough, are not in a condition favourable for surgical interference. You will watch children closely, and you will put off an operation even at the last moment, if any unfavourable sign, however slight, exist. Thus you should never be without the pulse, temperature, and general report of the morning of the intended operation; for often a sign from the pulse, or a furred tongue, or some complaint of uneasiness, has been brought under our notice in the operating theatre, and the child has been sent back to the ward, there to develop some illness, such as scarlet fever; and the frequency with which this complication has thus come under my notice leads me to suspect that it may give the clue to the explanation of some of those cases in which, after surgical operations, an eruption like that of scarlet fever has broken out upon the patient, such an eruption concurring with the operation, and not being in any sense consequent upon it. We had one remarkable case in which an excision of the knee-joint was postponed because of a sudden rise of temperature, which persisted, as a solitary sign, for some days, and was then followed by dilated and fixed pupils, and, later on, by other symptoms of meningitis. You will, indeed, have acted rightly in postponing an operation, even if nothing come of the symptoms which may have caused anxiety. It will often happen that the alarm is a false one, particularly with children, with whom fright or excitement will send up the pulse and temperature with great rapidity. One child, for instance, was sent away from the theatre as unfit for an operation, and we afterwards found that his troubles were entirely caused by the nurse having moved him from a front to a back ward bed.

With adults, too, you must take into consideration impairments by inheritance. Allowances may have to be made for syphilis, for scrofula, for gout, or for cancer; for, when these troubles are bred in the system, they may be productive of just so much impairment of it as may mar the well-doing of an operation-wound; given the knowledge of the inheritance, you must in each case gauge the extent to which it has weakened the system, and so determine the importance to be assigned to it in weighing the prospects of a case. If a family history of apoplexy is before you, your patient is not unlikely himself to have some degenerate condition of his arterial system; hence you are careful in the tying of vessels; you are watchful against secondary bleedings, and you are cautious in venturing upon those severe operations, after which even a slight error in the nutrition may weigh fatally against the recovery of the patient. Some, again, would seem to inherit a tendency to light up inflammation on slight provocation; and, when this fact comes out in their history, we may expect the repair of a wound to be overdone, too much overaction spoiling the adhesive process, and these patients will, as a rule, tell you that their flesh does not heal kindly. On the other hand, some come of a lethargic stock. Whatever repair has to be effected, is made with a minimum of activity. They escape all overaction after a hurt; indeed, they seem to require a distinguishing term, and may be said to lie under such circumstances in a state of subaction; and yet, whilst slow to resent, they are not slow in mending a hurt; for repair goes on steadily from the first. Indeed, these patients pass best through critical operations, and may be trusted to recover from injuries which to others would be irreparable. They will generally tell you that their flesh heals well.

Allowances may also have to be made on account of impairments of the system which have been acquired during a patient's lifetime. As a rule, syphilis does not in this way interfere with recovery after hurts and operations. You may any day see this for yourselves in the

accident wards, where you will find patients who have suffered from constitutional syphilis repairing their wounds with just the same rapidity as those who have not so suffered. In saying this, I refer to syphilis only. Of course, if syphilis falls upon one whose system is feeble through inherited scrofula, or upon one whose nutrition has been spoiled by drink, it will, no doubt, reduce yet lower the standard of his health, just as any other infection of, or any hurt to the body might; but by itself, and uncomplicated in the manner just referred to, the fact of a patient having suffered from syphilis need not (unlike the case of its inheritance) enter into our consideration when the question of an operation has to be determined. There are, however, other acquisitions which may have to be allowed for. There is the state of ill-health sometimes caused by influences of climate; there are habits of temperance and of intemperance to be asked after; there are habits, too, with respect to food which are less looked after than they should be, and yet they are of importance as influencing our treatment. You should always learn what a patient can and will take; it is vexing to be told, after an operation, for instance, that the patient cannot take milk, or beef-tea, or eggs, or some simple food, upon which you would naturally rely for his support. I have mentioned one case of a patient we lost because we failed to learn beforehand that she had the most feeble assimilating power, and we have to be constantly on the alert to learn what to give and what to avoid, according to the habits (it is more than the fancy) of the patients. Fancies, of course, you will often have to encounter, and usually by tact they can be recognised and disposed of. Amongst such you will class the symptoms arising through excitement of the nervous system, or when that system is not kept under the control which a sound mind should exercise over it. The constant dwelling upon the features of an illness leaves some patients so impressed and the mind so educated, that they really seem to have great difficulty in distinguishing between the symptoms which were and the phantoms of them which alone remain. No cases require more careful observation, as upon the correct reading of their signs the treatment so entirely depends. There is at present in Sitwell Ward a woman who has a stiff knee and thickening of the femur. She complains of pain in the thigh, extending thence into the leg and upwards, and she tells us the pain is so severe, that she would rather the limb were removed than continue to suffer from it. After trying various remedies, we told her that it would be as well to cut off the limb, and she was to be up and about for a week or two before going through the operation. We took no further notice of her for a time, but we learned by inquiry that she remained free from pain. One day, a fortnight later, we remarked to her on the absence of pain, and the same evening it recurred. Who shall say of what nature this pain might be? To her imagination, no doubt, it existed and troubled her; to us it seemed one so likely to be ultimately controlled by a more sound exercise of the will, that we resolved on no account to amputate the limb. And here let me add a word respecting other fancies, as I can but name them, which shape for themselves prospectively the results of treatment. There are some people who habitually anticipate evil, and believe in their bad fortune. Mr. Stanley once operated upon a man who was of this frame of mind, and who had settled that he should die after the operation, and he did die within thirty-six hours. I suppose this would be termed death from shock, yet there was nothing in the course of the operation, or in the loss of blood, or in disease of any internal organ, to lead by anticipation to the possibility of such an occurrence. There was a woman whose breast was removed last summer, who lay so desponding, that we had difficulty in convallescing her, although, so far as the wound was concerned, she made good progress. We could not rouse the nervous system from its state of depression; she refused food, and thought only of dying. If we had made out beforehand this frame of mind (as we ought to have done), we should have thought twice, to use a common phrase, before operating upon her. As a set-off against these patients, we have, however, those who believe in their good fortune. I do not speak of persons of the so-called sanguine temperament; I refer to those, whatever their temperament, who take a cheerful view of things, who would even persuade us to attempt operations against our better judgment. Such patients, as a rule, do well, and heal up their wounds quickly. But, with the best even of patients in this respect, you should never prophesy as to the time it will take to repair a hurt; for, although with an open wound you may count upon a progress at the rate of half an inch per week,* patients differ so much amongst themselves as to the rate at which repair goes on, that all you can venture to say as to time is, that the matter depends entirely upon the patient himself.

You will sometimes be helped in the observation of a case by mea-

surements of various kinds. Quite recently, Dr. W. Hunt of Philadelphia has sent me his observations on what may be termed lopsidedness; it would seem that patients sometimes have one side of the body shorter than the other. It has long been known that differences may exist between the two sides, and this has especially attracted attention with reference to facial structures, as of the nasal cartilages, of the nasal passages, and of the upper lip: parts bordering the points of junction of the higher subaxial arches. As far as the extremities are concerned, we do occasionally meet with tibiae of unequal length, and the foot of one side or the hand, independent of muscular development, is often larger than its fellow; for instance, the bones of the right or left thumb will be the larger as a person is right or left-handed. The question merits further inquiry; at all events, we may be reminded through it of the need for measuring limbs, lest we overlook some difference between them. Quite recently, we found out in this way that one leg (the broken bones were on the same side) had always been the shorter of the two, so that the patient was reconciled to some shortening which followed the treatment, and which might otherwise have been set down to bad management of the fracture. A man from Somersetshire was lately under our notice, on account of great thickening, partly osseous, partly of the surroundings of the right femur. It had followed soon after a fracture, and the question asked was this: Had we to deal with a swelling which resulted from the repair of the fracture, or was there a new growth, such as malignant disease? It was impossible to reply off-hand, although opinion leaned to the first-named alternative; but here we had recourse to measurements, and, after the man had been six weeks under observation, we found that the tumour was not increasing, and we then felt justified in giving the more favourable diagnosis.

Tumours should always be measured. If a chart be thus made of a naevus, you will be able to tell with certainty whether it is increasing or not, and, if it be, whether the rate of increase is simply with that of the growth of the child, or whether, instead of relatively, it is absolutely enlarging; for in the latter instance only does operative interference become urgent. If tumours are situated on the trunk, the best measurements are obtained by casts, and, as instances in which such casts are most useful, we may recall those thoracic aneurisms which project through the chest-wall, and the increase or diminution of which, whilst a patient is under treatment, we watch with so much anxiety. Enlargements of joints of the extremities should always be checked by measurement, taking care, of course, that successive ones are made at the same points as regards the circumference of the joint; any subsidence of the swelling will thus be accurately recorded, instead of being left to be guessed at by the eye; and, lastly, if you would take trouble about your cases, you may measure ulcers and granulating wounds (which are but healing ulcers), and so confirm or otherwise what I have named to you as the average rate of their repair. Anyhow, you will tell if your remedies are closing in the sore with the average speed, and, if they are not, you may see if your treatment cannot be improved.

There is perhaps no question involving greater anxiety than that which relates to the extent to which Nature may be trusted to recover herself from disease or injury. You often, at our consultations, hear it said, after an opinion has been given, that the surgeon in charge must, after all, be the judge to decide when the time has come, for instance, for operative interference. Take the case of a diseased knee-joint; if treated from the first, well rested, and the patient's health attended to, a stiff knee is, as a rule, the worst that will come of it; but if, through neglect of some sort or another, the disease has drifted until ligaments have softened, and partial dislocation is added to the synovial and cartilage disease, how closely you must watch for the signs which tell of failing strength, and which presage the necessity for excision of the joint or for amputation at the thigh. If, however, I were to select any direction in which more than in another advance is being made in surgery at the present time, the growing trust in the reparative power of Nature, when duly seconded by art, should stand first. The class of cases, for example, which used to furnish many of the primary amputations are now found amongst the compound fractures which get well; and that this trust in Nature is justified is further shown by the rarity of a secondary amputation, which in point of fact is an amputation performed under unfavourable circumstances, the attempt to save a limb having failed. We have had no secondary amputation as yet, but occasionally we have nearly passed the line; and, although the limb has been saved, its utility has been questioned. It was so in the case of a man, crushed on a railway, who had a compound fracture of the left leg, great wounds with laceration of the soft parts and arteries, and, unfortunately, destruction of the peroneal nerve; and hence a condition of the leg and foot which only allowed him with pain and trouble to follow his occupation. It was so, again, with a

* For the observations upon which this statement rests, see *St. Bartholomew's Hospital Reports*, vol. ix.

man who had the skin stripped off the forearm and hand on either side. He recovered; but it is a question if the hands are of much use to him, overrun as they are with cellular tissue, which has grown in them from loss of the cutaneous veins, and consequent imperfect return of the blood carried to them through the arteries; but the man says they are of some service to him, and so he is satisfied.

It is impossible to give you fixed rules for your guidance in determining how far you may trust Nature's power to repair disease; if you have a thorough knowledge of a case, and watch your patient closely from day to day, you will rarely err in the decision you may come to. In the case of an injury, when prompt action is needed, you may reckon that you may succeed in saving well-nigh any limb (if the antecedents of the patient are good), unless life be crushed out of it, or unless its main vessels or nerves are destroyed. Whether a limb be worth the preserving, must depend upon the extent of the damage it has sustained short of these major hurts.

PRACTICAL REMARKS ON CONGENITAL CATARACT.*

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IMPORTANT gatherings like the present have two main objects: the consolidation of that which is known, and the expansion of theories which may be to many quite unknown or only dimly shadowed forth. It is probably in the former, rather than in the latter, field that the best work will now be done. There is, however, a third direction in which such a meeting as this may, I think, usefully occupy itself.

There are certain questions of considerable practical interest and importance, involving a right decision as to operative proceedings or the reverse, and as to the methods of operating which should be employed in the event of such being decided upon: questions which may be viewed in widely different aspects by some of the best authorities, and upon which the author of this paper may find himself at variance with some of those for whose opinion he entertains the highest esteem. Under these circumstances, it may be for the advantage of the public and of ourselves that such questions should be freely ventilated and discussed, so that we may, if possible, arrive at some definite and well considered laws which shall give greater uniformity of practice; or, failing that consummation, at some point of divergence where we might agree to differ for reasons that may seem to be sufficient to each of us, since an intelligent and well considered difference of opinion is often the highest point attainable, and is only second in result to complete uniformity. I am disposed to think that these remarks apply with special force to the subject of congenital cataract, more particularly in reference to the question of treatment. The form of congenital cataract to which I would especially direct attention is that which is known as the "cataracte stratifié", in which the opacity is arranged in layers parallel to each other, and extending towards the circumference, leaving more or less of the outer portion transparent, and differing, also, in the degree of opacity of the grey layers.

Before, however, I enter upon this, which constitutes the chief subject of my paper, I would make a few passing remarks upon that form of congenital cataract which comes before our notice during infancy, where the lens or its capsule, or both, are so obviously opaque, and of such a dense white or greyish colour, as to attract our notice, and call for immediate surgical interference. All will probably agree that the best method of operating upon these cases is (having first freely dilated the pupil) to break up the cataract by means of a fine needle introduced through the cornea, and either allow the fragments to become gradually absorbed, or to perform linear extraction. Whichever method be selected, the operation may be pronounced to be very free from risk, although, even in these cases, I have more than once met with a failure. The practical point that I wish to take this opportunity of insisting upon is, that such cases frequently have serious complications at the fundus of the eye; it is, therefore, important to give a guarded prognosis. The eyes may have a perfectly healthy aspect, the

tension may be normal, and the pupil active; and yet the presence of an opaque lens and capsule may be only one indication of an unsound condition of retina. I have met with rather a large proportion of these cases, and I do not think sufficient attention has hitherto been drawn to them. The point that should excite suspicion is the condition more especially of the capsule, and sometimes of the lens itself. In operating on these cases, some difficulty will be found in piercing the capsule with the needle; or, when this is accomplished, and the needle is moved from side to side, in order to effect a free opening and break up some of the lenticular matter, the lens in its capsule will move with the needle; then no further opening can be effected, and no progress will be made, unless a needle be introduced on the other side, so as to co-operate with the first; or an opening may be made in the cornea, and the opaque lens in its capsule be drawn out. It will then be found that the lens-matter is unduly small in quantity and soft in consistence. Whenever this condition exists—and, as I have before hinted, my experience would lead me to say it is not uncommon—the prognosis is very unfavourable: a perfectly clear black pupil may be obtained, but no vision results.

I do not argue from this that the operation should not, under all circumstances, be undertaken; but, until the condition of the capsule has been ascertained, care should be taken on the part of the oculist not to give undue encouragement to parents and friends. I will now revert to the consideration of those partial forms of lenticular cataract, also congenital, to which I alluded at the commencement of this paper, and which constitutes my chief motive for writing it.

Among the various groups of cases that come under our notice, or which seem to call for some operative interference, it has always appeared to me that those cases of partial cataract require to be approached in a very cautious and judicial spirit; so much is at stake, and the risk is by no means inconsiderable. In an ordinary case of cataract, failure following the operation, though very disappointing, has some rays of consolation; the sight has become useless, the individual is usually descending into the vale of years, and his condition is not materially impaired; no positive harm has been done, and he suffers rather from having missed an anticipated benefit. In the case of these partial congenital cataracts, the conditions are very different; the subjects are young, and have all their lives before them, either to be made or marred by the results of an operation; the patient is very far from being blind; the sight may have been sufficient to admit of a certain amount of education, and of the performance of many of the ordinary functions, duties, and even businesses of life; it may be very stationary, or be making slow progress; and we might almost certainly predict that it will not lead to loss of all useful sight, even if left till the term of life. The failure of an operation under these circumstances involves perpetual darkness, the blighting of what might otherwise have been an active and useful career—the taking away of that which the poor patient would give all he possesses to regain even in its former imperfect state; if old enough to estimate his loss, he becomes the subject of painful but unavailing regrets, and his future is enshrouded with gloom. Such cases have happened in my own experience, and they have left a strong and painful impression on my mind. If only one such case occur in the lifetime of any oculist, it must be a source of constant regret, especially if, on a careful review of all the circumstances, it seems that a more judicious course might have been adopted so as well-nigh to ensure a more favourable result. This form of cataract, as its name implies, "cataracte stratifié", having been formed during foetal growth by the deposit of alternate layers of opaque and transparent material, the latter being the last layer deposited, and, constituting a transparent margin, presents slight differences in two directions: (1) in the density of the opacity; (2) in the relative proportions of the opaque and the transparent material to each other, whereby the extent of the clear margin is regulated: and this becomes an important element when the question of treatment has to be considered. There is yet another point in which these cases present a difference the one from the other. In the majority of cases, the margin is perfectly transparent, like a healthy normal lens; but, in some few instances, opaque lines, and even thin flakes, may be seen radiating at certain intervals from the opaque nucleus towards the extreme margin, leaving, however, well defined and clear intervals of transparent material.

Two questions have been broached respecting these cases about which authorities are not agreed. First, it has been asked whether the opacity increases in degree as the patient grows older, or remains *in statu quo* through life? Secondly, does the transparent marginal portion always retain that property, or may it at some period of life become opaque? These questions are not very easy to answer: partly because individual experience is not very large; and partly because we are obliged, in a great measure, to trust to the testimony of patients who are young and inexperienced, and who, unless they were subjected to some accurate

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