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RETROSPECTIVE ADDRESS READ AT THE FIFTH ANNIVERSARY OF THE READING PATHOLOGICAL SOCIETY, JULY 8th, 1846.

By F. A. BULLEY, Esq., F.R.C.S., Surgeon to the
Royal Berkshire Hospital.

Mr. President and Gentlemen,—It is with considerable diffidence that I have taken upon myself the duty, which, through your kindness, it has fallen to my lot this evening to perform,—that of epitomizing the transactions of our Society for the past year; but I trust to your liberal indulgence, and hope that I may be able at least faithfully to acquit myself of the honourable task. There can be no doubt that these duties are of a very responsible and onerous kind, involving an amount of tact and power of condensing a mass of interesting material, which I am fearful I do not possess, but I will use my best endeavours to discharge them, and if I fail I shall even be pleased to think that the failure may be attributed more to a want of actual capability on my part, than to a want of zeal to forward the objects of medical science, which societies like the one I have now the honour of addressing are so unquestionably calculated to promote. Fortunately, others have gone before me in these duties, and have left me very little to say respecting the advantages which our Society offers to its members. I could dilate freely upon the knowledge, which, through its means has been stored for our use, and that of science in general, and on the kindly and harmonious feelings among the members, which it has engendered and encouraged, but the subject has been so ably handled on previous similar occasions, that I feel I shall be excused if I waste not your time in reiterating what has been so eloquently expressed by my predecessors in this duty.

Perhaps I cannot give you a better illustration of the utility of such societies as ours, than by extracting a portion of Sir Benjamin Brodie's Retrospective Address to the Medico-Chirurgical Society of London, which has been quoted by my learned colleague, Dr. Woodhouse, on a former occasion, but which, as coming from so distinguished and observant a member of our profession, cannot on such an occasion as the present, be too often recalled to your recollection. He remarks—"Whatever brings a number of men of our profession into friendly intercourse and scientific conversation will be useful in exciting emulation, exercising intellect, and giving additions to their knowledge; it maintains the zeal of the zealous, while it imparts a spirit of emulation to those who are without it; it removes the distrustful feelings so liable to

be engendered by professional men not personally acquainted; it gives us a better knowledge of ourselves, teaches humility with respect to our own attainments, and respect for the opinions of others."

The annals of the past year contain the records of many interesting papers, several of them remarkable either for their novel views of the theory of disease, or for some important improvements in the means of treating it, and a mass of information of a very valuable kind has been thus accumulated, which cannot but have been extremely beneficial to all who have attended our meetings. Many of them, besides being of high practical interest, evince a deep and intimate acquaintance with the literature of our art, and have been the means of conveying to us an amount of knowledge which otherwise we might not have had the time or the opportunity to obtain.

The shelves of our museum teem with the works of our more active fellow-labourers in the path of science, and during the past year many curious and valuable additions have been made to our already interesting collection of pathological anatomy. Thanks to the skill and industry of our curator, Mr. Dunn, to whom our Society is under great obligations, our museum bids fair to rival at no distant period many others of much greater pretensions and longer standing than the one he has done himself so much credit in arranging.

Partly through the liberality of the Board of Management of this hospital, whose laudable attention to the wants and comforts of the Society cannot be too highly estimated or too frequently acknowledged, we have become possessed of a microscope of the most accurate and powerful construction. Unfortunately, a knowledge of its capabilities to unravel and explain the minute organization of the natural textures of the body, or the causes of the more important changes which take place in disease, cannot be obtained without much labour, observation, and experience, combined with a knowledge of optical phenomena which it falls to the lot of but a few to possess; but I have every reason to anticipate that its possession will, in a little time, prove a source of practical advantage to us all, through the attention of our distinguished colleague, Dr. Cowan, whose efforts to explain its uses by the constant performance of instructive experiments, cannot be too highly appreciated by the Society.

Within the last year we have had to regret the absence of one of our esteemed Presidents, who has retired from the active duties of his profession in Reading. I need not say that I allude to Dr. Smith, the recollection of whose good qualities, both as a gentleman and a friend, must be dear to all who ever

had an opportunity, either social or professional, of enjoying his acquaintance. There is yet another member of our Society whose services I cannot omit to mention, I allude to our remaining President, Mr. Bulley, my father. Without any object of professional distinction, he has watched over our proceedings with an interest which we could hardly expect from a person of his years, and has always evinced the greatest satisfaction when he has observed any improvement to medical science to emanate from the discussions of our Society. May he continue to preside over our meetings, and may he also continue to deserve the respect and esteem which a long and useful life has procured for him.

I cannot conclude these preliminary remarks without noticing the services of your Honorary Secretaries, Dr. Woodhouse and Mr. Harrison. The attention of both these gentlemen to their duties has been such as to deserve our warmest praise, but to Dr. Woodhouse I feel myself personally indebted. The clear and comprehensive manner he has adopted in condensing the somewhat voluminous transactions of the Society has rendered my labours comparatively light, and has afforded to our Society an accurate abstract of our proceedings to which we may be able to refer in after times with gratification and advantage.

Thanks to Almighty Providence I have no such painful duty to perform as to record the death of any one of our members, as has happened in former years. May God preserve you all for many years to come, to enable you to persevere in the prosecution of your useful and scientific labours, and lead you to the gratification of that high ambition, which ought to be the common object of us all,—the ambition of possessing knowledge which may be turned to the benefit of our fellow-creatures.

I shall now proceed without further preface to the more immediate business of the meeting,—that of detailing as clearly as possible the cases and observations which have during the past year been offered to the notice of the Society for discussion; but in doing so I shall adopt a different system to what has usually been employed on these occasions. It has been customary to divide the description of the pathological specimens into systems or groups, but for our present purpose it will be sufficient for me to divide the year into twelve monthly meetings, describing the proceedings at each meeting, in the order in which they have occurred. Of course it will not be required of me to record every observation that has been made in the course of the discussion, but such only as I consider to have a practical bearing upon the points discussed will be particularly noticed.

At the forty-eighth meeting, the first of the season— Mr. Harrison presented the abdominal and thoracic organs of a monkey, about six months old. It had been lately brought over from Calcutta, with a number of other animals of the same kind, and on its arrival in Reading was apparently perfectly healthy. Within a week, however, of its being brought to Reading, it suddenly began to droop, failed in its appetite and strength, and was observed to have a constant cough; within five weeks it died, with every symptom of general and phthisical consumption. On dissection, the lungs, liver, spleen, mesentery, &c., were found to be

crowded with tubercles; they were thicker in the right lung than in the left. In alluding to this case, Mr. Harrison remarked that the discovery of the existence of tubercles in this little animal's lungs was not without its value as illustrative of the cause of analogous productions in the human subject. This monkey was landed in perfect health to all appearance, but rapidly died of consumption. It was well known that this disease was the bane in zoological gardens, of all animals brought from a warm climate, and that rabbits, cows, &c., kept confined in the damp, with poor food and impure air, quickly died from the same disease. Confinement, change of air, diet, and separation from its companions, &c., in this case were sufficient causes, all of which might be, and were occasionally, in operation in the human subject. He thought that the deposition of tubercles in these cases was a strong argument in favour of their accidental production, contrary to the opinion of several distinguished pathologists, Dr. Cowan among the number, who believed in a most universal hereditary predisposition.

Dr. Cowan said, that M. Lugol had found, in almost every case of phthisis he had witnessed, that some member of the family had been previously affected, and that his experience perfectly coincided with that of M. Lugol. It could not be denied, however, that in some cases its production was entirely accidental, and might fairly be said to be so in the case of the monkeys and other animals brought to this country from the tropics, which it could hardly be believed had any predisposition to the disease.

Mr. Walford thought that the change of temperature might have a good deal to do with the development of the disease in animals, in consequence of the relation of the work to be done by the lungs in hot and cold climates materially differing.

Dr. Cowan then entered into a lucid and eloquent exposition of the causes of phthisis. He said that when the system was placed under circumstances unfavourable to the perfect fulfilment of its functions, various abnormal products would be generated, as happened in the generation of tubercles, the secretion of alkaline urine, and in some cases, of *albuminous* expectoration. The cause of this might be some hereditary predisposition,—some hereditary imperfection. It might also be the result of accidental circumstances, or occur at a certain age, when the vigour of the system began to diminish, and that under such circumstances the most trifling causes were sufficient to produce phthisis. He believed that when the body was in full and perfect vigour it might be exposed to every exciting cause with impunity, and that the reason why phthisis so frequently follows the transportation of the lower animals, was because their organization was not fitted to undergo and withstand those changes of circumstances for which the human body was by nature peculiarly destined.

Mr. May presented the kidneys of a man 60 years, old, a carpenter by trade, of very irregular habits, who had frequently during his lifetime passed calculi of lithic acid, the last attack of which had occurred twelve months prior to his death. He kept to his work, however, until three weeks before he died, during which time his symptoms were, loss of appetite, thirst, vomiting of everything taken into the stomach,

bowels confined, vision obscure, sleep disturbed, cramps in his legs, and slight subsultus tendinum. The quantity of urine evacuated was a pint in the twenty-four hours, which gradually became diminished to a quarter of a pint, of a pale colour, and alkaline albuminous character. The vomiting continued to the end, and he died asthenic.

Examination after death:—Both kidneys were enveloped in fat, and their capsules had become much thickened. The right one was small, atrophied, and compressed, the central portion being of a yellow colour, very distinct from the tubular. The left kidney was larger and not so condensed in its structure. The calyces and pelves of both were dilated; and the ureters enlarged. In the right was found some sabulous matter, and in the left a calculus of the size of a filbert.

An animated discussion ensued, several of the members thinking that these specimens of renal affection were the result of the operation of Bright's disease, in which opinion the narrator coincided, and dwelt upon the importance of discriminating these cases correctly, as otherwise the most injurious results might ensue from their nature being mistaken or overlooked.

Dr. Cowan then mentioned the case of a woman, aged 60, who had been suffering from an hypertrophied condition of the heart, combined with an affection of the head, for some years past. She experienced much inconvenience in walking about, moving always with the greatest caution. After a time she was suddenly seized with paralysis and almost total insensibility, and expired in a few hours. On the body being examined after death, the vessels of the brain were found much diseased, and had undergone the steatomatous degeneration. The left hemisphere was gorged with blood effused into its substance from the giving way of one of these altered vessels. It is to be regretted that the examination was not pursued further in this case.

At the forty-ninth meeting, the second of the season— Mr. Jeston related the case of Jane Pratt, aged four years and a half, who the year before had had scarlet fever, followed by dropsy, shortly after which a tumour was discovered in the right side of the abdomen. She died on the 1st of July in the past year. On examination after death, an extremely hard sarcomatous tumour, weighing seven pounds, containing in some parts of its substance cells of pus, and blood was found in the abdomen. The kidneys and liver had continued their functions up to the time of her death. The tumour seemed to have commenced in the cortical part of the kidney; the pelvis, blood-vessels, ureter, were perfect, but the cortical portion had entirely disappeared. The tumour was adherent to the lobulus Spigelii. The urine was not coagulable by heat or nitric acid. The left kidney was hypertrophied, but healthy.

Dr. Wells presented a skull which had been found in a tomb near Naples, which he supposed to be about 1800 years old. He did not present it as a pathological specimen, but as one of curiosity, from its evident antiquity, which was evinced by the coins of Nero found in the tomb, as well as by the old Roman masonry of which the tomb was constructed.

Dr. Cowan related the case of a delicate female to whom he had been called lately. The patient had died shortly before his arrival. She had been under the impression that she was pregnant, and had thought such had been the case two or three times before. She had been to London to consult Dr. Lee, who told her she might be pregnant, but also said her complaints might be caused by a tumour of the uterus. The day before Dr. Cowan was called she was alarmed by the unexpected report of a gun, and suddenly became faint and lost her colour. Stimulants of various kinds were administered, and a slight reaction ensued, but on the following day a greater degree of collapse was evident, and on attempting to swallow some brandy and water, she fell back and expired. On examination after death the vital organs were found to be perfectly free from diseased appearances. The uterus was enlarged as if pregnant in the fourth month, very symmetrical in shape, and smooth on its surface. On opening it a fibrous tumour was found lodged in its anterior wall. The womb had increased uniformly with the tumour, covering it closely; the cavity of the organ, upon which it did not appear to encroach, was beneath and behind it. Dr. Cowan supposed that the death in this case had been occasioned by a collapse of the system, producing congestion of the great vessels and the heart, from which from her anæmic condition she had not the power to rally. Two years before her death she had given birth to her third child.

Your reporter observed, that in this case the tumour found in the uterus might have in reality little to do in causing the sudden death of the patient; its existence, however, as a slow growing and perhaps painful disease, might, through the constant anxiety of mind it would produce, so affect the vital functions, as to bring on that depressed anæmic condition of the system which Dr. Cowan considers (by its not permitting her to rally from a shock,) occasioned her death. There are cases, however, on record, of the *post-mortem* appearance of tumours found in the uterus in old persons, and your reporter has himself observed such instances, which have not been complained of, or even suspected, during the lifetime of the patients, and where they must have remained in a stationary state during the latter years of life. Again, they are sometimes observed to undergo an osseous degeneration and enlarging, to quit their original seat, and to project and even fall into the cavity of the abdomen, a remarkable instance of which came under the notice of Dr. Cowan and your reporter some time since, and constitutes one of the finest specimens in our pathological collection.

At the fiftieth meeting, the third of the season— Mr. May exhibited a calculus, of the mulberry kind, which he had a short time before extracted from the bladder of a patient in the hospital by the lateral operation, at the same time reading a history of the case, which differed in no respect from that of the generality of such cases. He had employed in the operation a staff, considerably more curved than those in ordinary use, but which, however, he would not give the preference to in future, and had made the external incision much lower down than usual, his reasons for doing which he explained, and, as far as we could catch his meaning, we understood that by so doing all the vessels of the part, which might otherwise be wounded, were more certainly avoided, and the stone was capable of being

extracted in a more direct line. In this case, through the stone being of a large size, and exceedingly rough upon its surface, the extraction was rendered very difficult, but by gentle and sustained traction it was safely removed. The case proceeded favourably, and the patient had, at the date of Mr. May's observations, nearly recovered from the operation.

Mr. Field (whose recent retirement from the Society I will here take occasion to notice with regret,) presented a morbid specimen taken from a girl who died from what he considered to be acute stricture of the œsophagus, and from the history of the symptoms, it would appear that such had been the case. On examination after death, an enlarged tuberculous bronchial gland was discovered lying on the right side of the trachea, a little above its bifurcation; another longer than this, and also tuberculous, situated immediately below the right bronchus, was so placed that it pressed on the œsophagus and closed its canal, which was slightly dilated above this point, and contracted below it, leaving no doubt that death resulted from this cause. A section of one of these tumours displayed a mass of tuberculous matter, containing two or three cells filled with pus, and some streaks of carbonaceous matter, the whole being enveloped in a tolerably firm capsule. The base of the right lung contained several small tubercles, one of which was rapidly advancing to suppuration.

In the course of the discussion which followed, Dr. Cowan took occasion to observe, that a tumour similar to that of the bronchial gland existed in the lower lobe of the lung, while there was no tubercular degeneration in the upper lobe, and said he thought the case came under what the French called bronchial phthisis, the chief diagnosis of which was the age of the patient and the absence of the usual signs of phthisis of the lungs. The age at which this affection is generally found to occur, is from 6 to 12 years, and the disease is produced by the deposit of tuberculous matter in the bronchial glands. It was not improbable, that in this case, the pressure upon the blood-vessels by the tumour might have so altered the condition of the lung, as to occasion a tuberculous deposition in its lower instead of its upper portion, and it was fair to infer that if this pressure had not existed, there would have been an equal and extensive distribution of deposit throughout the whole of the lung. A conversation upon this ingenious explanation concluded the discussion.

Dr. Cowan was then requested to read his promised paper on statistics, the object of which was to prove the value of the method of registration in public institutions as well as in private practice. He exhibited a series of elaborately-constructed tables drawn up from the records of 4443 dispensary cases, according to the method recommended by Mr. Farr, which for perspicuity of arrangement and accuracy of detail, was as perfect as the most sanguine enquirer after statistical information could desire, and at the same time he read an explanatory report for the four years in which the recorded cases had occurred. This report, from its locally-interesting character, excited considerable attention, as a complete tabular history of the registration of an institution which admitted from 1000 to 1200 cases annually, out of a population of little

more than 20,000. The charity, including every district of the town, was scarcely, (to use the words of the narrator,) attended at all by country applicants, and might be said fairly to represent the average diseases of Reading. I will not enter at large into a description of the tables, which are complete as far as they can be made so. Every circumstance has been stated to render them highly valuable to medical practitioners, especially to those residing in the town; and Dr. Cowan deserves the thanks of the profession for this instance of his industry and method. The tables as well as the report has been published in the "Transactions" of the Provincial Association. There is one part of the report, however, which so immediately concerns the sanitary condition of the town in general, and is so important to us all, as guardians of the public health, that I cannot close my notice of this valuable paper without offering to your observation one of the remarkable truths which it develops. Speaking of the general health of the town, he says, "Though Reading may be considered as on the whole decidedly healthy, its immunity from febrile disorders would be still greater were hygienic arrangements more effectually carried out. It still contains many miserably constructed houses, badly-drained and badly-ventilated courts, the supply of water is insufficient, the sewers are often injuriously exposed, and in one or two limited districts the under soil is saturated with water. The sewerage of some of the principal streets, though from soil and inclination easily accomplished, is also far from being satisfactory, and the grated openings of the main drain are, in warm weather, the sources of noxious and disgusting effluvia."

(To be continued.)

ON THE MEDICINAL LEECH: (SANGUISUGA OFFICINALIS, SAV.)

By THOMAS BRIGHTWELL, Esq., Norwich.

(Read at the Anniversary Meeting of the Provincial Medical and Surgical Association, at Norwich, Wednesday, August 19th, 1846.)

The existence in Norwich of an artificial pond or reservoir, in which for many years from twenty to thirty thousand of the medicinal leech are kept, has enabled me to investigate the natural history of this animal, and to offer some suggestions by which, perhaps, we might at least aid in supplying the quantity needed for our own consumption, instead of being almost entirely dependant, as we at present are, on a foreign supply. Any information on this subject is the more important, as it is stated, that, from a variety of causes, there is an increasing scarcity of the animal. It appears that at least ten millions of leeches are imported into London alone every year, and from the extent of the demand it is obvious that any suggestions for the preservation and rearing of the medicinal leech in this country, are not undeserving attention.

The medicinal leech, *Hirudo medicinalis*, or, according to modern nomenclature *Sanguisuga medicinalis*, is found throughout nearly all Europe, and, in small quantities, in this country. The greater number of those imported are sent from Hamburgh, and are obtained in Hungary, Austria, and Prussia; some are also imported from France and Portugal. The dealer