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OBSERVATIONS ON VALVULAR DISEASE OF THE HEART: ILLUSTRATED BY CASES.

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[*Read at the Medical Society of London, Oct. 19th, 1850.*]

There is, perhaps, no department of medical science in which such rapid and satisfactory progress has been made of late years, as in the Diagnosis and Pathology of the Diseases of the Heart. At the commencement of the present century, very little accurate knowledge was entertained concerning the morbid conditions of this important organ; and it is painful to reflect upon the serious errors in practice, which must have arisen when cardiac pathology was in a state of obscurity. The great work of Laennec, while it investigated and described with considerable accuracy the diseases of the lungs, and threw a flood of light upon their treatment, failed in giving a similar degree of precision to the physical examination of the central organ of the circulation. When I was a student in this metropolis, the Diseases of the Heart were in progress of investigation by a number of acute and laborious observers; but, even in the best schools of medicine, the nature of the healthy sounds was still a matter of doubt, speculation, and discussion; while the morbid sounds, although attentively observed and accurately described, were not attributed, in all cases, to their real causes, or connected with their true pathological conditions.

At the present day it may be said, I think without exaggeration, that the diagnosis of the Diseases of the Heart is now so well understood, that it may be almost ranked among the number of the exact sciences. The labours of our illustrious countryman Dr. Hope, and the no less important researches of Dr. C. J. B. Williams, have left hardly any room for doubting the accuracy of the laws which are now laid down as guides for the physical investigation of the Heart. The healthy sounds have been referred to their true causes by experiments and reasonings so satisfactory and conclusive, as to carry conviction to all rational minds; while the morbid sounds have not only been accurately connected with their true pathological phenomena, but have been localised

with such precision, that it may be almost said, that we could hardly discern the morbid condition of the Heart with greater clearness, if the organ itself, and its thoracic coverings, were constructed of transparent materials.

By this species of knowledge, diligently acquired and faithfully followed up,—the facts and conclusions of our great writers being carefully stored in the mind, and subsequently confirmed by physical examination during the life-time of the sick, and by the revelations obtained by the scalpel after death,—by such means, the knowledge of the nature and treatment of cardiac disease has been improved to an incredible extent: human sufferings have been often alleviated, or abridged; latent mischief has been detected, and arrested in its progress; and life in many instances, has, undoubtedly, been prolonged. But it may, I think, be fairly asked, whether this branch of medical science has not been pushed somewhat too far in modern days; and whether, led away by the brilliancy of the researches into cardiac diseases, and fascinated by the simplicity which now attends their physical investigation, some practitioners do not now lay too much stress upon the aids derived from auscultation, and neglect the attendant phenomena, which modify the healthy and morbid conditions of the central circulatory organ?

The structural derangements of the Heart have always been justly regarded as matters of the highest importance, and as demanding the utmost attention on the part of the medical profession. The deep interest attached to this class of diseases, by the profession, has been extended to the public in general; and an anxiety, of the most painful nature, is often entertained by patients, and their relatives, regarding the real, or supposed, existence of organic Disease of the Heart.

It would be insulting to a Society so enlightened as that which I have now the honour to address, to point out the marks of distinction which exist between real, and supposed Disease of the Heart; between the symptoms which sometimes spring from the exalted imagination of the patient, and those which denote actual organic mischief; between the indications which involve only partial and, perhaps, transient derangements of its functions, and those which prove an alteration in its structure. But I may be permitted to observe, that notwithstanding the excellent books and lectures published upon the subject, and notwithstanding the facilities offered by our great hospitals, the diagnosis of Heart-disease is by no means so generally accurate as it might be; and it has fallen to my own lot to find members of our profession, even among those who hold a very respectable rank, commit rather serious errors in this respect. Still, setting aside the mistakes of inaccurate observers, there can be no doubt that organic affections of the Heart are at present among the most common, as well as among the most fatal diseases.

Of all the organic diseases of the Heart, the morbid conditions of the valves have, perhaps, been regarded as the most formidable. It is easy to conceive that either hypertrophy or dilatation, or both, may exist, and yet, if the valves be sound, the life of the patient *may* not be seriously threatened, nor his health materially impaired; the channels of the circulating fluid are still free and patent, and the condition of the heart's muscular structure would not appear, arguing *a priori*, to

influence the current to a dangerous extent. But when there exists a diseased state of the valves, whether it consist of thickening, of rigidity, of ossification, of vegetations upon their surface, of malformation, or of deficiency; then it is clear that a material impediment is opposed to the circulation of the vital fluid, just as the current of a river would be impeded if a mechanical obstacle were placed across the stream. When we observe the beautiful mechanism of the cardiac valves, and contemplate their functions in health—the facility with which they make way for the passage of the blood, and immediately stretch themselves across the aperture to prevent its return—we could not but conclude, if we argued from physiological data alone, that any causes which should mechanically impede the onward passage of the blood, or which, by preventing the closure of the valves, should allow of its regurgitation, would be followed necessarily, and rapidly, by the most alarming and fatal consequences. But clinical observation teaches us, that while distressing symptoms, and fatal results often follow hypertrophy and dilatation without any disease of the valves, yet that the most serious diseases of the valves may be unattended with any remarkable symptoms, and may not tend either to shorten life, or to derange materially the health. I wish that I may be understood not to express an opinion that *any* organic diseases of the heart are without danger; but, I think, I may appeal to the records of clinical medicine to support the propositions just laid down.

The fact that murmurs of a very loud and distinct character have often been heard during the course of several years, without serious derangement of the patient's health, has been admitted, and commented upon, by authors; but, as far as I can learn, the explanation usually given is, that the morbid condition, whatever it may be, is only in a nascent or a rudimentary state, and that its development has been arrested by the conservative powers of the system, or by the appliances of medical art; and, indeed, it cannot be denied, that such an explanation is, in many cases, quite satisfactory. And it has been very correctly stated that the loudness and distinctness of the murmurs are by no means proportionate to the extent or importance of the diseases which originate them; and a very trivial cause, such as the presence of a slight vegetation upon one of the valves, has often produced a very loud murmur. Dr. C. J. B. Williams, in a very valuable paper on Organic Diseases of the Heart, published in the LONDON JOURNAL OF MEDICINE for April last, gives an admirable case in illustration of this point. The patient was a man aged about thirty, in whom there was a very loud murmur, following the second sound; it was most distinct in the midsternum, but it was also heard in every part of the chest, in the arteries of the neck, and, although faintly, even in the radial artery at the wrist. This patient, as Dr. W. informs us, was kept in the hospital as a kind of stethoscopic curiosity. But it unfortunately happened that he caught typhus fever, of which he died; his death being quite unconnected with any severity of cardiac symptoms. On examining the body, the ventricles were found moderately enlarged and thickened. The valves were all healthy, except the aortic; and the only morbid appearance was, that one of them had the free margin neatly retroverted, so as to leave a fine, smooth chink for regurgitation.

It is evident, I think, from the tone of Dr. Williams's remarks, that he considers the loudness of the murmur to be no criterion of the extent or importance of the cardiac disease, in which opinion he is undoubtedly confirmed by abundant facts: but I think that he, and many other authors, conclude that, when a patient exhibits for a considerable period a cardiac murmur, the disease is generally of a slight or rudimentary, and therefore not of a dangerous character. I think I am in a condition to prove that *Valvular Disease of a most formidable and extensive nature, may exist for several years without compromising health to a serious extent, and without abridging the usual term of human existence.*

The cases which I am about to adduce are, I think, quite decisive, and, I believe, free from objection. I have carefully excluded the cases of persons still living, and also cases in which I had no opportunity of making a post-mortem examination; because I maintain that however veracious may be the character of the observer of cardiac disease, it is impossible, without observation of the phenomena exhibited after death, to consider any case as complete and wholly satisfactory. I may here observe, in passing, that without absolutely discrediting the accounts of cases which are continually published, wherein the patients have recovered, or in which no post-mortem examination has taken place, I am extremely sceptical upon the subject; and when I read of wonderful *cures* of fatal diseases, such as phthisis, and cancer, by the appliances of hydropathy or the trivialities of Hahnemannism, I am led to say "*Credat Judæus Apella, non ego.*" The fact is, that our knowledge of pathology is still in its infancy, and the most accomplished and eminent members of our profession are as much distinguished for their modesty as for their splendid abilities:—but "*fools often rush in*" where "*angels fear to tread.*"

My cases therefore are limited to three. In all of them I think it must be admitted that Valvular Disease of the most serious character had existed for a considerable number of years, without entailing upon the patients any remarkable amount of suffering, and without shortening the period to which human life is generally extended. Such cases as those I am about to offer to the notice of the Society may be, and no doubt are, often met with and described; but I confess that the history of chronic diseases and of latent organic defects in the human system has hardly seemed to me to meet with the attention which their importance deserves.

With the first patient I was but little acquainted, having seen him only for a few days before his death; with the second, I was acquainted for upwards of ten years, although not in a medical capacity, and simply because the patient never felt any symptoms requiring professional notice; with the third patient, I was also well acquainted for about ten years, and had abundant opportunities during that period of studying the stethoscopic phenomena.

CASE I. DISEASE OF AORTIC AND MITRAL VALVES, APPARENTLY OF LONG STANDING. DEATH AT SEVENTY YEARS OF AGE. J. H., æt. 70, formerly a seafaring man, had been ill for some months before I saw

him, which was in November 1846. I was asked to see him at a house where he lodged; he was standing up and dressed, but he complained of great debility, with cough, and some expectoration. He made no particular complaint concerning his chest, but on applying the stethoscope, I found that he was affected with serious Valvular Disease of the Heart, the indications of which will be presently noticed. I recommended his removal to the Islington Infirmary, in order that he might have more care taken of him than he experienced in his lodging, and also that I might examine the progress and result of the case with greater accuracy. He was accordingly removed, and I saw him again on the 9th of November 1846, when the following symptoms presented themselves. He was lying in bed, still complaining of great debility, with cough and some difficulty of breathing. The urine was scanty and high-coloured, but he had no swelling of the legs, nor any appearance of dropsy in any other part. The pulse was 104, very feeble and regular, the bowels open, the tongue moderately clean.

Physical Signs. Percussion gave no peculiar sound. Auscultation of the lungs gave no morbid indications. Auscultation of the heart gave a distinct but not very loud bellows murmur, accompanying the first sound of the heart, and prolonged so as in great measure to conceal the second. This murmur was heard at the apex of the heart as well as at the base, and there was no appreciable difference in the quality of the sound in either situation. The murmur was not to be traced far above the base of the heart, and it was not heard at all over the carotid arteries. The impulse of heart was not increased.

Diagnosis. Disease of mitral and aortic valves. I find it recorded in my notes made at the time, that the general appearance of this man was not indicative of the serious disease under which he laboured, and he merely looked like a person suffering from age, poverty, and privation. He was ordered to have a light and nutritious diet, and to take a mixture containing some tincture of henbane and a little ipecacuan wine; but he died the next morning rather suddenly and unexpectedly, after passing a restless night.

Post-mortem Examination twenty-four hours after Death. The body was that of a somewhat spare man, but was not emaciated. The *Head* was not examined. *Chest.* There were numerous adhesions between the costal and pulmonary portions of the pleura, which membrane was thickened in some parts. The lungs themselves were not materially diseased. The heart was somewhat enlarged, the apex being situated below the sixth rib. The right auricle and ventricle, with their valves, were quite healthy. The left ventricle was slightly thickened. The mitral valves were thickened with a cartilaginous deposit, but the auriculo-ventricular opening was patulous. The aortic valves were excessively diseased. Viewed from above, they appeared to be stretched entirely across the aorta, meeting in the centre, and allowing only a very small chink for the passage of the blood. Each valve was encrusted by a thick osseous deposit, of a nodulated character, which rendered the valve perfectly rigid. Viewed from below, the convex surfaces of the valves were seen to be also thickened with osseous deposit. There was likewise a deposit of bony laminæ in the aorta itself, a little above the valves. *Abdomen.* The liver was of natural size, but congested, and when

cut, it presented the nutmeg appearance. The kidneys were healthy. The other viscera were not minutely examined.

In this case, there was obstructive disease of the aorta of the most formidable character, together with regurgitant disease of the mitral valves. It is, I think, impossible to doubt that the disease must have lasted for a considerable time, and yet the man attained an average old age, and did not, so far as I could ascertain, suffer any very severe or distressing symptoms.

The next case, however, is more satisfactory, because I was personally acquainted with the patient, and I know that she suffered no remarkable symptoms whatever.

CASE II. DISEASE OF THE MITRAL AND AORTIC VALVES, APPARENTLY OF LONG STANDING. SUDDEN DEATH WITHOUT ANY PREVIOUS ILLNESS AT SIXTY-NINE YEARS OF AGE. Mrs. K., æt. 69, was a lady of very active habits, of mild and benevolent disposition, temperate and abstemious, of rather tall stature and spare figure; she had always enjoyed good health, with the exception of an inflammatory attack about twelve years before the date of the present history, but the exact nature of the disease I had no means of ascertaining. Although intimately acquainted with her and her family for ten years previous to her death, and although I was the medical attendant of the family, I had never known her to complain of any illness. Since her death, however, I was informed that she suffered occasionally from slight attacks of dyspepsia, and also from difficulty of breathing and faintness, but the symptoms were very transient, and never required medical assistance. From personal knowledge I can state, that she was by no means a person of sedentary habits, as she was continually attending to the duties of a large house, and I met her walking in the streets almost every day. On Monday, June 27, 1843, about four in the afternoon, I was requested to see her immediately, as she had fallen down in a fit, although she had been previously in perfect health. At the time of the attack she was standing in the kitchen, superintending the affairs of the family, when she suddenly fell down. As I lived at that time next door to her, I arrived immediately upon being summoned, and found her lying on the floor with a pale countenance and very feeble pulse, and quite insensible. I was wholly at a loss how to account for her condition, as I had never known her to be ill during my whole acquaintance with her. I succeeded, with assistance, in placing her upon a sofa. Mustard poultices were immediately applied to the feet, and spirits of hartshorn held to the nose, but we had scarcely laid her down, when she expired.

Post-mortem Examination forty hours after Death. There was lividity on many parts of the body, apparently from gravitation, the lividity being chiefly observable on the under surface. Very little fat beneath the skin. *Head.* The vessels of the scalp were somewhat congested. The skull presented no remarkable appearance. The dura mater was slightly adherent to the inner table of the skull on the left side. Some fluid blood was found lying between the skull and the dura mater. The arachnoid membrane was somewhat opaque, and there was a considerable quantity of thin serous fluid effused beneath it; the veins of the pia mater were congested, especially in the posterior part of the

brain. The brain itself, with the exception of being a little softer than is usual in persons of the age of the deceased, was quite healthy; and the only appearances worthy of notice were the effusion of some fluid and the congested state of the meningeal vessels above described. *Chest.* The lungs were quite healthy, with the exception of slight congestion. The heart appeared externally to be larger than usual, but not remarkably so. There was very little fluid in the pericardium. The right auricle and ventricle, with their valves, were perfectly healthy. The left auricle was also healthy. The mitral valves were thickened by a deposition of semi-cartilaginous substance. The parietes of the left ventricle were very much thickened, but the cavity was of the usual size. The aortic valves were found very much diseased, and on looking at them from above downwards from the aorta, they appeared completely to close the passage. They were found to be converted into masses of bone, which nearly filled up the valvular orifice, leaving only a small chink for the passage of the blood. These bony masses were rough and nodulated, and were deposited apparently within the sinuses of the valves, and one portion of great size extended from one of the valves down into the cavity of the ventricle. The lining membrane of the aorta also presented a great number of bony plates. *Abdomen.* The liver presented no remarkable appearance. The stomach was full, the deceased having eaten her dinner a short time before the fatal occurrence. The kidneys were congested, and their cortical substance presented a somewhat granular appearance.

In this case of remarkable disease of the valves, the patient had enjoyed almost uninterrupted good health, and was in much better health, indeed, than most persons at her age. Nor can it be said that her immunity from unpleasant symptoms, and the delay of the fatal termination, was owing to care on the part of her friends, or to the indulgence of rest; for she was a person of great activity, both of mind and body.

The next case, however, is the most satisfactory of all; for the patient, who suffered from Valvular Disease of the Heart to an enormous extent, actually lived to the age of *eighty-three!* and died, eventually, of another complaint. With the history of this case I was well acquainted. I made the diagnosis of serious Valvular Disease nearly ten years before her death; and in the spring of this year, 1850, I had the gratification of confirming the correctness of my diagnosis, as well as of strengthening the opinion which I have been lately induced to entertain, that Valvular Disease, to a very great extent, *may* exist without shortening human life, or much impairing its comfort. I brought the heart, with a great portion of the aorta, and of the arteries of the head, to the Westminster Medical Society; and those who were present on the occasion will recollect the immense accumulation of osseous matter in the aortic valves, along the course of the aorta, and in the carotid and cerebral arteries.

CASE III. EXTENSIVE DISEASE OF AORTIC AND MITRAL VALVES. DEATH AT THE AGE OF EIGHTY-THREE. Grace Darton died on the 4th April, 1850, æt. 83. The history of the case was as follows. The patient was a thin, emaciated woman, of a pale complexion, and mild, submissive appearance, who had long been an inmate of the Islington Workhouse.

I began to attend her in 1840, and had seen her from time to time since that period. She stated that she had had several attacks of rheumatism previously to my attending her, and that she had been bled three or four times for those attacks. She had not suffered from any of those symptoms which are usually considered among the prominent rational indications of Heart-Disease; such as swelled legs, palpitation, shortness of breath, etc.; and although she came into the infirmary at various times, for several ailments, it was never on account of any cardiac symptoms: and it was only by auscultation that I became aware that she had any affection of the heart. In fact, I was disbelieved as to the existence of any serious disease in her heart; and although I frequently recommended that she should be kept in the infirmary, and be constantly under medical superintendence, my recommendations were disregarded.

In the year 1840, (æt. 73,) she had an attack of diarrhœa in March, which readily yielded to medicines. In August, she had an attack of chronic rheumatism, for which she was ordered a dose of calomel and jalap, and a purgative mixture: under this treatment she recovered, and was reported cured on the 11th of September.

Feb. 8, 1841. She had an attack of influenza; for which she was ordered a mixture, consisting of tinct. hyoscyani ʒij, sulph. magn. ʒss, inf. sennæ, aq. menth. aa. ʒiij. During this attack she had some dyspeptic symptoms, for which she took carb. of magnesia, with sulph. of magnesia, and aqua menthæ. She was reported cured on Feb. 20.

January 1842. She was seized with an attack of catarrh, for which she was treated with mild purgatives: but an attack of chronic bronchitis supervened, for which a blister was applied to the chest, and she was ordered to take gr. xij of ipecacuan immediately, and afterwards to take the following: R. vin. ipecac. ʒiij; sulph. mag. ʒij; inf. sennæ ʒvj. Sumat coch: ij magna 4tis horis. During this attack the state of the heart and lungs was particularly examined, when it was found that, besides mucous, sibilant, and sonorous rattles over the lungs, there was a loud rasp sound over the region of the heart. This sound was very loud, and much prolonged, taking the place of the first natural sound, and almost obscuring the second. This sound was heard most loudly over the base of the heart, and extended over the region of the arch of the aorta, and the right side of the neck. The impulse of the heart was not stronger than natural; pulse 80, regular. I should here notice that the pulse was always regular, and feeble, whenever I examined it. The treatment was directed, in the first place, to the relief of the bronchitic symptoms, which were removed by the measures indicated above, and by others of the same nature; and on the 4th of Feb. 1842, the expectoration had diminished, and the râles had disappeared. The rasp sound, however, still remained as loud as ever, and I was convinced that the woman had confirmed and serious disease of the aortic valves. I thenceforward, therefore, always adopted a somewhat tonic method of treatment; recommending vegetable tonics, with light nutritious diet, and avoidance of exertion.

May 30, 1842. She had an attack of lumbago. A mixture was thus prescribed:—R. vin. colch. ʒij; inf. gent. co. ʒvj. Sum. coch. ij magna 4tis horis. Under this treatment she was again reported

cured. On the 19th of October 1842, she had an attack of English cholera, which was successfully treated by carbonate of magnesia, and sulphate of magnesia in peppermint-water. On the 2nd of July 1843, she had an attack of common fever, from which she suffered for a week, but eventually recovered, by the use of febrifuge medicines, and diluent drinks.

Sept. 8, 1845. She had a cutaneous eruption, attended with great itching, which I determined to be *prurigo senilis*. This was treated by mild aperients.

June 12, 1846. She had another cutaneous affection, attended with itching, which I regarded as lichen, and for which I ordered her twenty minims of liq. potassæ, in one ounce of compound infusion of gentian, three times a day. This treatment was continued till the 17th of June, and the eruption disappeared.

Oct. 5, 1846. She now complained of faintness, nausea, want of appetite, and a disagreeable taste in her mouth. She said that she had lately suffered from palpitation of the heart, and difficulty of breathing, when she exerted herself. She passed her water freely; never spat any blood; and had no swelling of the legs: bowels open, tongue clean, no thirst, pulse 58, quite regular, and weak. *Physical Signs.* The impulse of the heart was not increased, but the loud, sawing murmur was heard over the base, completely superseding the first sound, and was much prolonged; but a second, though much shorter murmur, was heard after it. Towards the apex of the heart, this murmur was also heard, but not so distinctly; it was distinctly heard over the region of the arch of the aorta, and over the right carotid artery. The diagnosis was still, of course, that the chief disease lay in the aortic valves. She was directed to take a moderate diet, consisting of mutton-broth, bread, milk, and tea; and to take the following medicine: *R. Acidi sulphurici diluti, m. v.; inf. gent. co. ʒi. Quartis horis sumend.*

Oct. 7. Much the same; dyspeptic symptoms remain; she complains of great faintness. She was ordered, in addition to the above treatment, to have half-a-pint of porter daily, and to remain in the infirmary.

From that time, until very lately, I had not many opportunities of seeing this woman; and I heard that she died (without manifesting any particular symptoms beyond those resulting from her great age) on the 4th of April 1850, aged eighty-three.

Post-Mortem Examination thirty-six hours after Death. The body was emaciated; the legs were slightly œdematous; right side dull on percussion. *Head.* Scalp natural; cranium very thick, especially at its posterior part; sutures all obliterated; dura mater healthy, very firm, and dense; arachnoid membrane of a pearly, opalescent appearance, due to the presence of serum below its surface, which escaped on making an incision. The brain itself was moderately healthy; no softening, nor extravasation, in any part; arteries of the brain rigid and patent, owing to osseous and cartilaginous deposition,—this was especially the case in the ophthalmic, vertebral, and internal, carotid arteries; very little fluid in the ventricles. *Chest.* Left lung appeared of its natural colour and consistence; right pleural cavity contained a large quantity of fluid. About ʒxx of serous fluid were removed from this part; and in the fluid there was a

large mass of coagulable lymph, very soft, and of the consistence of thin jelly. Right lung healthy, and crepitant at the apex ; but below, the texture was of a very dark colour, friable, and heavy, so that it sank in water. On cutting into this portion of the lung, it was found very much congested, did not crepitate, and, on squeezing it, a bloody serosity flowed out. On this side, therefore, there was acute pleuro-pneumonia, which was probably the immediate cause of the woman's death. The heart, seen *in situ*, occupied its natural position, and the apex was placed between the fifth and sixth rib. After removing the lung on each side, the heart, with the arch of the aorta, the innominate, the left subclavian and carotid, and the whole of the thoracic aorta, were all carefully dissected out, and removed together. The right auricle was natural ; the tricuspid valves were patent, and admitted three fingers ; but the attached margins were rather hard, and thickened. The semilunar pulmonary valves were natural ; but the orifice was somewhat contracted. The left auricle was natural ; the mitral valves admitted two fingers, but they were thickened and hardened, and contained a considerable quantity of osseous matter ; the walls of the left ventricle were rather thickened, but not very considerably. The aortic valves were completely rigid, and converted into bone ; and they met in the centre, leaving only a small chink at their juncture in the middle line. Looked at from above, the valves were seen stretched across the aorta, and each of the valves contained, in its sinus, a large mass of bony deposit. The ascending and transverse aorta were very much dilated, being, at least, twice their natural diameter ; the innominate was also very much dilated. The lining membrane of all these parts was most extensively diseased, part being converted into atheromatous matter, part exhibiting numerous plates of bone, and part being ulcerated. These appearances were found in many other arteries,—not only in the cerebral arteries already described, but also in the subclavians and carotids. *Abdomen.* Liver congested, of very dark colour, and friable ; spleen very small, congested ; kidneys small, but not apparently diseased.

This, then, was a case of extensive Valvular Disease of the Heart, in a patient who suffered hardly any of the rational cardiac symptoms, but who was attended, at different periods, for various ailments, as diarrhoea, chronic rheumatism, catarrh, chronic bronchitis, lumbago, prurigo senilis, dyspepsia, and, finally, died at the advanced age of eighty-three, of an acute attack of pleuro-pneumonia.

1. GENERAL REMARKS. The cases which I have ventured to bring before the notice of the Society, are of very considerable practical importance. Whatever theoretical views may be entertained to account for the endurance of life, and the possession of a moderate degree of health, under circumstances apparently so unfavourable to either, it is impossible to deny that the facts themselves are of great value.

In the first place, if it can be proved that actual organic Disease of the Valves of the Heart may exist for a considerable period, and without shortening the average duration of life, such a conclusion may tend to divest this class of maladies of some part of the terror which their existence now so commonly inspires ; and a patient, who is unfortunately

labouring under a disease of this description, may nevertheless be encouraged by the reflection, that a Disease of the Heart, although of a decidedly serious character, may not prematurely put a stop to his career. And if such be the consolation which may, I think, fairly be afforded to those suffering under confirmed and extensive disease, how much more applicable is it to those who are affected only by some of those minor affections of the heart and its valves, which occur so frequently among the sequelæ of rheumatism?

In the second place, the subject is one of great importance in its relation to the average duration of human life, and the practice of life insurance. The existence of any disease of the heart is, I believe, an insurmountable barrier to effecting a policy of insurance; but I think it probable, that in proportion to the accumulation of facts bearing upon the subject, the deductions drawn only from the physical exploration of the heart, will not be so exclusively regarded as they have been of late years. But upon this point I wish to be understood as offering a very guarded opinion; for I have no wish whatever to undervalue the importance of the information derived from auscultation; nor do I pretend to assert that the existence of cardiac disease is a matter of slight moment. All I presume to argue is, that cardiac disease, even of a very decided and extensive character, *may* be compatible with long life and with moderate health.

2. THE TREATMENT of Valvular Disease of the Heart is a subject of too great extent and importance to allow me to offer more than a few very general observations in the present paper. Notwithstanding the opinions which I have ventured to express, I consider the existence of Disease of the Valves to be a matter deserving the closest attention of the practitioner, and the most zealous application of the resources of his art. Hence it is essential that the disease should be checked, if possible, at its *commencement*.

"Principiis obsta; sero medicina paratur
Cum mala per longas convaluere moras."

In the early stage of Valvular Disease, the stethoscope is invaluable; it gives us the earliest intimation of its existence, and we are supplied with means for its repression. The patient suffering under the agonies of articular rheumatism is often unconscious of the mischief going on at the fountain-head of life; the stethoscope reveals the latent evil—vegetations of albumino-fibrine are encrusting the surface of the valves—but the judicious administration of mercury causes the absorption of the peccant lymph, and the channel of the blood is restored. And even when the disease of the valves is unfortunately confirmed, medical appliances may do essential service in alleviating the sufferings which often ensue, and in delaying or averting the fatal catastrophe. The palliative measures which ought then to be adopted, it is almost unnecessary to insist upon. The injunction of the necessity of rest, both of mind and body, will be frequently repeated; and the state of the digestive system will, of course, form a prominent subject of inquiry and of treatment. The use of digitalis, which I believe to be of the utmost value in some of the organic Diseases of the Heart, is, I think, contra-indicated in most cases of Valvular Disease, in which the current of the

blood is diminished, and the vital energies consequently impaired; in such instances, digitalis must undoubtedly do more harm than good, by lowering the force of the heart, and still farther enfeebling the circulation. In such cases, it is better to rely upon those measures which are calculated to strengthen the system, and to stimulate the heart to propel the blood through its diminished channel; and I adopt a somewhat tonic system of treatment under such circumstances, as the best calculated to counteract the effects of the valvular obstruction.

8, Torrington Square, October 1850.

CASE OF SOFTENING OF THE CERVICAL PORTION OF THE SPINAL CORD.

By EDWARD C. SEATON, M.D.

[The substance of the following Communication was read before the Western Medical and Surgical Society of London, October 4, 1850.]

It is remarked by Dr. Graves, that "Inflammation of the Spinal Marrow is a disease so liable to be confounded with a great variety of painful affections, that every ascertained case of it ought to be recorded, for the purpose of rendering more perfect a department of pathology already diligently, but not completely, cultivated." Obeying the injunction laid down by this great authority, and believing that the following case is not without its points of special interest, I venture respectfully to submit it to the notice of the profession through the pages of the LONDON JOURNAL OF MEDICINE, in which so many valuable contributions to our knowledge of Diseases of the Nervous System have lately appeared.

Mr. H. W., æt. nearly 50, by trade a wholesale and retail cheese-monger, and a man whose circumstances enabled him to command every comfort of life, consulted me on the 29th of July 1848. He was a spare man and rather short, of very temperate habits, married, and the father of a large family. He had enjoyed good general health, though he came of a rheumatic stock, and had himself suffered occasionally from rheumatic pain. During the preceding year and a half or two years, he had noticed that his urine was frequently turbid, and he had had one or two attacks of gravel. The complaints for which he sought relief of me were stiffness in the arms and thighs, and excessive debility on undertaking any exertion, so that he was hardly capable of lifting anything, and could not work in his shop for half an hour without becoming tremulous and unable to continue his labour. He had frequent cramps in his legs, but no persistent pain anywhere. At all times irritable in temper, he had become latterly much more so. His appetite failed him of a morning, but not in the latter part of the day. He said that his digestion was good, his bowels regular, and his urine at present clear. His pulse was feeble.

At the end of a fortnight his condition was the same. I thought I