habit of furtively mixing with the discharges from her bowels, and had by this means succeeded in deceiving, for several months, her relations and medical attendants; not with perfect impunity, however, for her plan of deception could not be carried on without taking some of the medicines they prescribed.

ART. XIII.—*A Case of Pericarditis.* By JOHN THWAITES, M. D., one of the Physicians to the South Eastern General Dispensary.

THE advantages which the medical profession find daily increasing to them from the use of the stethoscope, have placed its utility, to a certain extent, beyond question, and compelled its most determined adversaries to allow a degree of importance to it.

In diseases of the lungs or heart, an accurate diagnosis cannot conveniently be made without its careful employment, and in the existence of pregnancy numerous instances have proved its efficacy. To pronounce upon a case of pleuritis or pneumonia, of valvular disease of the heart, or of hypertrophy, without stethoscopic observation, would be considered as the act of one totally regardless of professional scientific advantages. To disregard its use because infallibility does not attach to it, appears not a little strange to those whose acquaintance with disease should have long before convinced them of *their own fallibility without it*; while the preponderating advantages which belong to its use should at least gain for it a just and cautious judgment. But while the utility of the stethoscope and the advocacy of its upholders have gained for it the elevated situation which it at present enjoys among the materiel of the medical profession, there is a need for caution among its strenuous supporters and its most skilful applicants lest they retard instead of

advance its progress. There have been instances wherein dissections have proved opinions confidently advanced erroneous, and such have given a momentary triumph to the opposers of the stethoscope; and there have been no few cases in which its use has served to add increasing lustre to the professional character for discrimination and patient research of those whose experience has taught them the benefits of humility of opinion and cautiousness of expression.

The acuteness of hearing which is always necessary to render one master of these symptoms which minute changes, caused by disease, produce in the heart, is not possessed by all; indeed, only by such as enjoy and improve peculiar opportunities; while likewise a conviction of personal capability for forming diagnoses may frequently lead the practitioner into hurried and incorrect opinions. May not also particular prejudices overrule positive evidence in the minds and ears of those who are cultivating a particular doctrine? Let us, for instance, consider the *numerous* causes which produce cardiac disease, and the numerous maladies with which it may be either confounded or combined, and he will find *caution* staring us in the face, and commanding attention. How frequently have nervous palpitations excited the greatest fears in the mind of the patient, friends, and physicians, and time pass over before it is discovered that no organic change has taken place. How often have palpitations and "suffocations" which evidenced derangement of the heart's structure been viewed as merely symptomatic of another disease, or dependent on it, until, too late, the real facts are discovered. With such scenes continually before the practitioner, ought he not to yield to the necessity which exists for obtaining a more accurate principle of judgment, and a more sure means of diagnosis than mere general observation, and having found it, to use it judiciously.

Mark Plant, residing at No. 9, Moore-street, aged $7\frac{1}{2}$ years, of sanguine temperament and slight habit of body, presented himself at the South Eastern General Dispensary in February, 1831, complaining of constant oppression and short, unceasing

cough, increasing to a violent degree upon any great exertion, and accompanied with a sense of suffocation. His mother stated that his health had been exceedingly good previous to the last three years, since which time it has been gradually declining. That this delicacy of health commenced with a "worm fever," in which he had been attended by a respectable apothecary, and that during his illness he was affected with "swelling and loss of the use of his limbs." He had got pills, powders, and bottles of various kinds, without deriving any benefit. Some time after, the use of his limbs gradually returned, and palpitation of the heart, with frequent oppression, commenced. For some months he was able to run about and play with other children, but latterly he has been deprived of that gratification by extreme difficulty of respiration on making the least exertion. His health having thus gradually diminished, and no appearance of amendment presenting itself, his mother became so much alarmed that she brought him to the dispensary for advice.

Upon examination, the left side was considered somewhat more distended than the right; the action of the heart was distinctly visible at some distance; countenance anxious, complexion good, but lips approaching to a purple colour; pulse 100, synchronous with the heart's action and regular; pulsation of the carotid arteries greater than natural, tongue clean, bowels rather costive, appetite good, sleep tolerably well; does not complain of any affection of his head, *bruit de soufflet* heard distinctly over the whole præcordial region, and on the corresponding position of the vertebræ posteriorly. *Fremissement* could be felt on the application of the hand to any part of the left side.

Venæsection ad 3x.

Habt. Bolus Catharticus.

℞ Tincturæ Digitalis ʒi.

Vini Seminum Colchici ʒss

Tincturæ Iodinii ʒss.

Syrupi Simplicis ʒii.

Aquæ font. ʒvi m. ft. mistura.

Sumat Cochl un. qq. 6ta hora.

I directed that he should be brought to the dispensary once a week. At first the accounts were favourable, and he generally found himself somewhat relieved after taking the medicine; his mother stated that he slept better at night.

April 5th. He appears somewhat better than at first visit, violence of heart's action diminished, countenance less anxious, pulse 100, but weaker. *Bruit de soufflet* and *fremissement* the same; complains of some pain of side; tongue clean, bowels free.

Habt. Hirudines octo præcordio

Repr. Mistura sine Colchico.

Upon his next visit, a few days afterwards, the pain of his side was quite recovered, but his other symptoms continued the same.

Continr. Medicamenta

Repr. Venæsect. ad $\bar{z}$ x.

I continued the repetition of the bleeding once a fortnight, with the continuance of the other medicines, until the month of September, when he appeared to me much improved, but still in great suffering.

5th. Action of the heart diminished, pulse regular, 100; tongue clean; bowels free; always gets relief for a time after taking the medicine; complains of some pains in his side; spirits much improved.

Habt. Vesicator pectori, et omittr. Venæsectio.

Repr. mistura.

His absence from the dispensary during the winter months prevented my taking notes of the case, until the month of March 1832. His mother, afraid to expose him to the cold and wet, came herself with an account of his progress.

Little or no variation was to be discovered in her account of him, that could be relied on, and of course no alteration was pursued in the treatment; when he appeared, however, there was a considerable change evident in his whole contour. His left side had become much more projected; the pulsations of the heart

more perceptible ; the blueness of his lips augmented ; and there existed in his very look, a degree of lassitude and anxiety which is not to be described in writing.

I ordered him aperient and alterative medicines, renewed the blisters to his side, and endeavoured, by increasing the dose of the digitalis mixture, to lower the arterial action. He continued to follow the directions which he received very carefully until the latter end of April. On the 21st he came to the dispensary, and I again pursued a careful examination of his symptoms.

His pulse still continued regular, at 110, and synchronous with the heart, but much reduced *in strength*. The carotids beat as violently as usual ; the lips were not so purplish as at last visit ; countenance distressed, and very anxious ; tongue clean ; bowels regular ; extremities warm ; no giddiness of head ; left side increasing in size ; action of the heart more marked and violent ; *fremissement* on the application of the hand distinctly perceptible over the whole side. *Bruit de soufflet* louder, and heard in the same situations as before. Upon applying the stethoscope to the inferior part of the epigastrium, I for the first time in this case heard the musical bruit very distinctly in three different notes, commencing in a grave and rising in the scale to a sharp thrilling tone. I was so struck with its distinctness and accuracy of tones, that I referred to my friend and colleague Dr. Benson, and also to one of the pupils who were present (Mr. Massy), who confirmed my idea of the sound as just described. I then determined to gain the opinion of some more skilful stethoscopists than myself, and I accordingly sent the case to an eminent stethoscopist of this city, from whom I received the following kind opinion, and which I cannot better express than in his own words.

“ The case is one of narrowing of the left auriculo-ventricular opening, with regurgitation into the left auricle. The signs are *bruit de soufflet* under the left mamma, which is produced by the passing of the blood through the narrowed opening ; and

in the same situation very distinct *fremissement* is felt when the hand is pressed flat against the side. My reason for saying that there is regurgitation, is, that there is very distinct *bruit de soufflet* heard in the back on applying the stethoscope over the fourth dorsal vertebra, which I believe is produced by the passage backwards into the left auricle of some portion of the blood first sent forwards into the ventricle. I should be inclined to say that there is not hypertrophy of the left ventricle, but I cannot be positive, and it is a matter of very minor importance in the case."

Such was this gentleman's opinion of the case, and such was my own, with this exception, that he did not believe in the existence of hypertrophy—I did. The distention of the præcordial region, and the *violence* of the pulsation, made me lean strongly to the opinion that it was so. In other respects he confirmed my private diagnosis. I afterwards sent the child for examination to another skilful practitioner, from whom I received the following answer: "I am not satisfied as to whether the lung is diseased or not. But if not, then the signs appear to be hypertrophy of the right ventricle, and probably a narrowed state of the auriculo-ventricular opening. I know nothing that could be done except to apply an issue and counter irritation."

This advice was accordingly followed forthwith; but before sufficient time had elapsed to enable me to form any just opinion of its effects, a paper appeared in the Dublin Journal for May, in which the hydro-sulphuret of ammonia was so strongly recommended, that I determined to commence its use immediately, without communicating with any person on the subject. I accordingly prescribed four drops to be taken three times daily in some cold water, gradually increasing the quantity. The child was to be brought to me every three or four days. He had not continued the use of the medicine for more than a week before the most marked relief was obtained. His countenance was quite altered, as the great anxiety which had been so strongly depicted on it was much lessened, and when spoken

to he smiled, and said that he "liked to take the medicine, as it made him so much better." His mother stated that he had not been taking the medicine long ere the oppression was so much relieved, that he began to talk and to play as he was wont to do before he got so bad; and that she came to have the medicine renewed, as he had not got any thing which gave him so much relief. The *frequency* of his pulse was not in the least relieved, but the *violence of the heart's action* was most perceptibly so. The *bruit de soufflet* and the *fremissement* both continued, but the musical *bruit* was gone, and could never be heard again. But at this period I left town rather suddenly, and the patient came under Dr. Benson's care. Without having learned from me the treatment I was pursuing, he, for the same reason which induced me, also prescribed the hydro-sulphuret of ammonia in doses of six drops, three times in the day.

Upon my return to town we both commented on the plan we were pursuing, and agreed in the opinion that he had used the medicine with the most marked benefit. It was accordingly determined on to continue it, and we persevered in its use until its influence was no longer felt. During this period the issue was kept open, discharging freely. The same expression of relief from the drops was repeated by the patient and his mother at each visit; yet the size of the thorax on the left side was evidently increasing.

Towards the conclusion of August his face and limbs began to swell, and the oppression became very great. Diuretic and purgative medicines were frequently administered with partial relief. The abdomen and scrotum became frightfully anasarous, and he could only lie on his back in a slanting position with his legs kept asunder with pillows, which also served as a support to the enormously distended scrotum.

The pain which he now suffered was so great, and death seemed so imminent, that I was induced to request Dr. Benson to puncture the parts, and allow the fluid to escape gradually, with the hope of affording him temporary relief. A large quantity came

away in the course of the day and night, with much mitigation of his sufferings ; but in the evening of the second day inflammation and mortification set in, and on the following morning I received a message from his mother stating that he was dead.

Dissection, assisted by my colleagues Drs. Houghton and Benson ; present, Mr. Richard Forster, pupil.—The anasarcaous state of the body prevented us from forming a correct judgment of the difference between the size of the left and the right cavities of the thorax.

Upon raising the sternum the heart presented itself greatly enlarged in its general appearance, and occupying the whole of the left inferior and anterior part of the thorax ; the left lung was much compressed and reduced in volume, and the inferior part of the right lung was considerably displaced. Upon cutting into their structure, they did not exhibit any appearance of disease.

The heart was next removed from its situation for the purpose of obtaining a more accurate examination of its state. The sac of the pericardium was not to be found, the membrane itself having formed so intimate an adhesion to the whole surface of the heart and to the roots of the great vessels, that it could only be separated from them by the practised scalpel of a demonstrator, the adhesion having all the appearance of being of very long standing, except at the posterior and superior part of the left ventricle, where it exhibited appearances of more recent inflammation. When we cut into the right ventricle it was found hypertrophied to once and a half its original thickness, of firm consistence, and of a natural colour. Among the cells formed by the carneæ columnæ in the walls of the ventricle, were discovered two substances resembling small lumps of fatty substance firmly attached to the lining membrane, and when cut into presenting a small cavity containing a trace of creamy looking fluid on its surface.* The cavity of the ventricle was

* To the best of my recollection these bodies have been noticed before by Dr. Townsend, but *where* I cannot recal to mind.

dilated, and the auriculo-ventricular opening was of a size proportioned to the adjoining cavities. The auricle was also proportionally enlarged in every respect. The tricuspid valves, the pulmonary artery and its valves, and also the carneæ columnæ, were perfectly healthy.

The left ventricle was considerably thickened in substance, but in no other respect exhibiting an unhealthy appearance. The auriculo-ventricular opening of that side was not diminished in size, but, on the contrary, held a proportion to the rest of the heart. At the insertion of the cordæ tendiniæ into the floating edge of the mitral valve, there were firm depositions of a fibro-cartilaginous consistence, which gave to the edge of that membrane a thickened appearance and feel. The internal surface of the auricle was partially covered with a firm gelatinous looking substance, which was internally connected with the lining membrane, so as to present a roughened appearance when scraped with the scalpel. The valves of the aorta were perfectly healthy. At its origin, and for a short distance, the aorta was considerably dilated, bearing an exact proportion to the left ventricle, but rather suddenly assuming its natural size after giving off the great superior arteries. The exact correspondence in the size of all the parts was very remarkable, as well as the absence of those organic changes which we all had so confidently anticipated.

In viewing the above, as we may safely do, as a case of chronic pericarditis, of which the other morbid changes were but the consequence, the following observations suggested themselves: Why was not the real nature of the disease discovered? Andral, in treating of this disease, says, "*Sans doute il serait à souhaiter que telle lésion fut toujours indignée par tel groupe bien déterminé des symptômes; mais il n'en est ainsi que dans un bien petit nombre de cas; ainsi chercher à rattacher à une lésion quelconque des symptômes toujours indéniables, c'est retarder le perfectionnement du diagnostic en voulant le simplifier.*" Thus we have this great pathologist bowing

at once to the difficulties of what had engaged years of study and of observation, and speaking as one who had long been accustomed to encounter them. He subsequently presents us with ample grounds for the exercise of his caution and experience in the history of those cases: "*Dans lesquelles la pericardite n'a produit d'autre symptome qu'une grande acceleration du pouls, des phenomenes nerveux fort graves, une subite prostration des forces et la mort.*"

Such were, in a great degree, the circumstances of the case just related. The great acceleration of the pulse appears to have arisen first from the stimulus produced by the inflammatory state of the parts, and subsequently to have continued in consequence of the excitement caused by organic derangement. Its regularity seemed to have arisen from the equal and corresponding proportions of the various parts. I should be disposed to view the *bruit de soufflet* as a nervous phenomenon, as we have no means of accounting for it upon other principles. The original complication of the case rendered it much more obscure, and in all probability, in a great degree, concealed the stethoscopic signs (if, indeed, they had been sought for,) from discovery. At all times pericarditis is a rare and very obscure disease, but especially when arising out of, or when combined with other diseases. When it takes place from rheumatic metastasis it may exist for some time ere its true nature be discovered, in consequence of the absence of many of those symptoms generally viewed as characteristic of the disease. When combined with pneumonia or pleuritis the multiplicity of symptoms will serve much to embarrass the practitioner; and pericarditis arising in the course of fever may be long overlooked, the symptoms being attributed to other causes. Moreover, there are phenomena connected with it which occur in constitutions and temperaments of different kinds. The tumultuous action of the heart may exist without being accompanied with pains, while in others there is the most distressing and *peculiar* suffering. Irregularity of the pulse is by no means a constant

attendant on pericarditis.—See Andral, *Med. Clin.*, Laennec, on pericarditis, &c. In the case just related, not having seen the disease before it had assumed a chronic form, I cannot speak of its earlier symptoms, but during the year and a-half in which I attended it, I never perceived any irregularity in the patient's pulse. The violence of the heart's action I attributed to general hypertrophy, and the *bruit de soufflet* as before mentioned, to regurgitation of the blood into the left auricle: but I could not, at any period, discover that pathognomonic sign of pericarditis, spoken of by Doctors Sandies and Kreysig, namely, a hollow produced in the epigastrium, during each systole of the heart: the *fremissement* I cannot attempt to account for.

As to the post mortem appearances, may not the hypertrophy have been the consequence of the pericarditis, alone? and upon the following principles: In the natural and healthy state the motions of the heart are carried on in a fluid, by which means the muscular contractions and dilatations are easy and unrestrained, being free from any embarrassment produced by unequal pressure on one particular part, or by constriction on the whole. But when the fluid in which these motions take place is absorbed, and adhesion of the pericardium ensues, the muscles being called into unusual and violent exertion, to compensate for the loss of freedom of motion, according to physiological principles, they increase in a degree proportioned to the requisite force employed to expel their contents; so that, what at first was the effect of nature's efforts to resist disease, becomes subsequently a disease in itself, and forms the greater evil of the two. This proceeding from such a cause (*viz.* adhesion of the pericardium) produces, necessarily, on similar principles, dilatation of the enclosed cavity. Nature always presents her front to the dangers which approach her, and admirably adapts herself to every situation and circumstance. The restraint thus put upon the external portion of the heart, allows only the *internal* muscular fibres to act with any degree of freedom, and increased growth internally, proceeds in a ratio according to the increased

degree of exertion which necessarily devolves upon those fibres. This would be followed by diminution of the cavity for the reception of the blood, did not nature's efforts still sustain the equilibrium; what is lost in one respect must be gained in another. To accomplish this, the elasticity of the muscular fibre is required to yield to the volume of fluid (fluids being so incompressible) and to permit a gradual dilatation of the cavity, until at length (the muscle and the pericardium both distending *pari passu*) sufficient room is obtained for its tolerably free ingress. But an unnatural state of the parts is produced, arising from a cause which, as no remedy can remove, must ultimately prove fatal. I have been led to the above opinion respecting this case from the course which the disease followed. The hypertrophy and the dilatation of the parts being so exactly proportioned to each other, and most evident where the adhesion was most intimate, left me at a loss to account for it on other principles. Add to these the fact, that there was no disease of the arteries or valves, and the natural appearance of all the parts, except in the one instance of general enlargement—and one cannot rest upon any other than mechanical principles for an explanation.

The preparation which I have made of the heart exhibits the state of the various parts and the pericardiac adhesion very clearly.

ART. XIV. *A Case of Extra-Uterine Foetation: with Dissection, &c.* BY GORDON JACKSON, M. D., Licentiate of the College of Physicians, and one of the Physicians to the Sick Poor Institution in Meath-street.

JUDITH TEGGS, aged thirty-two, and mother of five children, residing in William-place, off Portland place, called on me, May 26th, 1828, and stated to me that she had been ailing for several months past, affected with obtuse pain of the right hy-