to use with greater certainty the remedies we already possess, viz., that of diagnosis, we are constantly adding to the scientific certainties of practical medicine. We need not wonder at the difficulties under which our predecessors of the last century laboured, when we consider how much at fault we should be, in the various diseases which we have to treat, were we ignorant of the practice of auscultation; and surely it is a matter for congratulation that, by the use of other physical means, we are enabled to bring to bear another of our senses to discriminate the healthy and morbid conditions of parts hitherto beyond our reach. What the ophthalmoscope is doing for the diseases of the eye, the laryngoscope is doing for the diseases of the larynx; and there are few of us, probably, who have not had actual experience of the practical value of these instruments; and it is, perhaps, not too much to hope that by a more extended application of similar measures we shall, in course of time, have additional means of discriminating the nature of diseases of organs still beyond the reach of either ear or eye.

With these facts before us, with the knowledge of our increased acquaintance with the nature and causes of diseases, and of the means by which they may be prevented; of the greater precision of our diagnosis, and our more simple methods of treatment, we must be allowed to join issue with those who express a doubt as to the advance of medicine, or assert that there is nothing in connection with it that is characteristic of progress.

Although neither physiology, pathology, nor therapeutics can be ranked amongst the exact sciences, there is much in them that is accurate, precise, and clear. And surely those who boast of the perfection of physical science, and rail against the shortcomings of medicine, would do well to pause in the comparisons which they make. For has it not been shown of late that uncertainties exist even in that most exact of all sciences, that which forms the most complete exemplification of the wonderful genius of man, and of the skill with which he has been able to see into the workings of almighty power? Has not the astronomical world been startled by the assertion that, in calculating the mere distance of our planet from the sun, a serious error, an error to the extent of nearly one-twentieth, has probably crept in?—that, in fact, we are some four millions of miles nearer to the central luminary of our planetary system than has hitherto been supposed? If this be true, our views of the rapidity with which light travels will require modification, no less than the estimated distances, from each other, of the various bodies which we see rolling in space.

If these things happen in relation to physical science, in relation to a question of distance, are we to be surprised that uncertainties should exist in regard to a science like medicine, which deals with the most complex and difficult subjects into the study of which it is possible for the mind of man to enter?

But whilst we claim for medicine a share of that progress which has characterised other sciences, let us not claim too much of the credit for ourselves. We have profited by the experience of our predecessors, and, as we have had additional means of research and observation, we may have avoided some of the errors into which they fell. Let us use these means with diligence. The field of medicine is abundantly large; there is no subject in physiology,

or therapeutics which may not receive additional light from the labours of those who will zealously pursue it, and who may thus contribute to the advance of practical medicine, as they shall more fully reveal the principles of these sciences and their relations to each other.

Lettsomian Lectures

ON

MIDWIFERY AND DISEASES OF WOMEN.

Delivered before the Medical Society of London.

BY

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LECTURE I. (*Continued.*)

ON SOME POINTS CONNECTED WITH THE PATHOLOGY AND ETIOLOGY OF FIBROUS TUMOURS OF THE UTERUS.

d. These tumours are sometimes the seat of *suppuration*. Dr. R. Lee has stated that this change is a rare complication. Still it occurs more frequently than is generally believed. Such a case is quoted by M. Guyon from Huguier, in which death occurred from this cause about twenty-five days after admission. Another remarkable case, which occurred in the practice of M. Huguier (*Union Méd.*, 1860, p. 331), is the following.

A young woman was admitted into the Hospital Beaujon with a fibrous tumour of several years' duration, and so far painless, in the uterus. It was of the size of an adult head, and had produced cedema of the extremities from pressure on the veins. The vagina was contracted circularly, so as to make it difficult to reach the os uteri. Some days after admission, she was seized with fever, the tumour inflamed. An abscess formed in it, out of which from a tumbler to a tumbler and a half of pus came away. The uterus remained intact. The tumour became so soft, that the finger could be pushed through it. The next week, the patient was progressing most favourably. The tumour had greatly diminished in size, but its progress in this respect was slower. The excretion of pus was diminished. All evidence of compression of the veins has disappeared.

Dr. Robert Lee, in a supplementary paper (p. 281, vol. xxxiii) of the *Medico-Chirurgical Transactions*, gives also a fatal case, where a quantity of greenish yellow foetid pus was found to exist in the very centre of a fibrous tumour. Dance also quotes another case referred to by Guyon (p. 95), in which an incision, practised upon an interstitial fibrous tumour after death, gave exit to eight or ten ounces of pus. Lisfranc also (*Clinique Médicale de la Hôpital de la Pitié*, Paris, 1843) mentions a case where an abscess was found in a fibrous tumour.

Marshall Hall relates the case of a woman who died after parturition from inflammation and suppuration of a fibrous tumour of the uterus. (*Cyclop. of Practical Med.*, p. 388, vol. iv.)

A remarkable example of hysteria, followed by death, in which a fibrous tumour in a state of suppuration was found at the *post mortem* examina-

tion, is related by M. Cœurderoy, from the service of M. Lebert.

There was in the upper part of the uterus an immense cyst, with thick fibro-cartilaginous parietes, which had contracted close adhesions. Inferiorly was a smaller tumour, in a state of capillary inflammation, with extravasated pus.

In addition, in this case there was apoplexy of the uterus and ovaries.

Cruveilhier has stated that occasionally uterine tumours remain latent; and that suppuration begins around them, often giving rise to cachexia, the cause of which is frequently ignored. The termination is generally fatal; sometimes, however, recovery occurs; and he mentions a case which occurred to him in Montpellier. A colleague brought him a number of bodies which a woman was passing externally from the vulva. These proved to be fibrous tumours. The suppuration set up lasted a long time. Finally, the woman recovered.

M. de Boscredon records a case which occurred in the service of M. Piedagnel (*Bull. Soc. Anat.*, xxix, 332), of suppuration of a fibrous tumour.

It appears to have suppurated in its centre. The tumour was removed after death. This woman, having suffered much from hæmorrhage and cachexia, died at the hospital. During life, the tumour had been recognised as implanted in the anterior lip of cervix and anterior wall of uterus.

A similar case is mentioned by Foucher; but in this, as in a similar one which occurred to M. Dolbeau, there was an external opening of the tumour, distinct from the os uteri, in the vagina. It is important to bear this in mind in making a diagnosis. A cancerous mass might be supposed to exist, where a simple operation would cure, even if nature itself were not able to do so for the patient. Another case of suppuration in portions is given by M. Grelet de Fleurette (same journal, vol. xxviii, p. 154), where a large uterine fibroid was found to contain several cavities, some containing blood, and some pus. M. Koerberle of Strasbourg and M. Pineau have both met with cases.

c. A more innocent change is that of *fatty degeneration*, described by Dr. Humphry in his *Lectures on Surgery* (sect. xxvii, p. 139). Mr. Paget found, in a large pendulous fibrous uterine tumour, a distinct circumscribed fatty tumour, as large as a walnut. (*Lectures on Surgical Pathology*, p. 480.) An analogous example is recorded by Dr. G. Hewitt (*Pathological Transactions*, vol. xi, p. 173), of a widow lady aged 55, a patient of Mr. Cholmondeley, who had been regular up to the present time.

She had expelled spontaneously, after severe flooding, a fibroid tumour. This had been growing for a long period; and had had its growth arrested some years before its expulsion. On examination, the various centres of development in it were found softened down and converted into fatty matter, giving rise to a cystic appearance. The tumour had gradually disconnected itself. The catamenia was probably a simple periodic discharge, provoked by the irritation of the tumour.

Such are a few of the pathological changes which are observed to occur in the progress of fibrous tumours, when the change is one of softening.

II. HARDENING. Uterine fibrous tumours, when hardened, were long ago shown by Dr. Bostock

(*Med.-Chir. Trans.*, vol. xix) to consist chiefly of, 1, phosphate of lime, which is the salt most abundant; 2, animal matter; 3, carbonate of lime; 4, sulphate of lime in small quantities. Following the general rule of the proportional diminution of animal and the increase of mineral deposits according to age, which is usually observed in such growths, there comes a time when the tumour is converted altogether into a calcareous mass. It is in many instances believed that this calcareous transformation, as in tubercle, is a fortunate and conservative change; and so in fact it is, if the tumour be small. Occasionally, they are spontaneously expelled *per vias naturales*. However, by their pressure on surrounding parts, they produce ulceration, and burst into the abdominal cavity or intestines, it may be the external skin. Cases are on record setting forth these several mishaps. This calcareous transformation is believed by Mr. Paget not to be true ossification, but calcareous degeneration, consisting in an amorphous and disorderly deposit of salts of lime and other bases, in combination with, or in the place of, the fibrous tissue. (Paget's *Surgical Pathology*, p. 479.) This deposit may either be peripheral or interstitial, and may occasionally, in the latter case, constitute a hard coral or ivory-looking mass. (*Ibid.*)

These calcareous tumours are expelled *per vaginam*, a remarkable case of which is mentioned by Dr. Sumpe (*Zeitschrift der Gesellschaft der Aerzte in Wien*, Nov. 29, 1860. Braith., 1861, p. 248.) A considerable number of such examples are also recorded in the *Cyclopædia of Practical Surgery* (fifth vol., in the article on the Uterus and its Appendages). This ossification is much more common in the extra-uterine or subperitoneal varieties of fibrous tumours; and this is so far of importance in diagnosis. The deeper fibroids have not this tendency.

III. INTERSTITIAL ABSORPTION. Any one who has seen many cases of fibrous tumours of the uterus must call into mind several in which, either with very little or indeed no treatment at all, a fibrous tumour has disappeared, or has diminished so far in size as to give no longer rise to any inconvenience. That tumours, even in their active stage of growth, do enlarge and subsequently diminish, and again enlarge and again diminish, is a fact commonly observed. Sometimes this periodic increase is synchronous with the catamenial flow. Here, no doubt, it is due to temporary congestion or serous effusion. Sometimes the growth of the body persists for some months, and then diminishes for other months. The case mentioned by Atlee is one of this kind. The temporary enlargement here may be due to œdema.

It is certain that during pregnancy fibrous tumours do enlarge occasionally. Such a case is recorded by Dr. Priestley in the *Obstetrical Transactions*; and others are on record. Dr. Ashwell long since pointed out (*Guy's Hospital Reports*, 1836) that fibrous tumours especially begin to enlarge at the sixth or seventh month of gestation, thus pointing out the advisability of bringing on premature labour in these cases; and the same observation has been made by continental writers.

It is not, however, always easy to determine whether it is the fibrous tumour which diminishes in size, or the hypertrophied uterine structure around it. Cases of enlarged uterus, as a result of pregnancy, often subsequently undergo evolution; so we

may have hypertrophy of the uterus accompanying a fibrous tumour of the uterus, which gives way. Sir C. Clarke, Dr. Rigby, Dr. Ashwell, and others, have mentioned cases where this absorption had taken place, though in some cases there was probably death of the tumour, which preceded its removal.

But I have met with at least two distinct cases of large fibroid, which, I should say, filled the pelvis, and materially interfered with the functions in that cavity, where the tumours have gradually diminished to the size of small apples. One of these women was a matron in a charitable institution, and was obliged to give up her place, being incapacitated for work by the size of the fibroid, and its interference with the due performance of her functions, and by general discomfort. Two years subsequently, the tumour had diminished to the size of an apple; and she was enabled to become the active matron to a workhouse—no sinecure—which serves to demonstrate the recovery. In both these cases, however, this absorption was synchronous with the climacteric change. This fact is not new. It has been observed by several authors, English and French; and, so far, my cases are only corroborative. In no case have I ever seen a distinct fibroid, during the permanence and activity of the uterine periodic discharge, become absorbed without active surgical or medical measures.

[To be continued.]

AVERAGE ANNUAL PROPORTION OF DEATHS. A return shows the average annual proportion of deaths from "specified causes at specified ages," in England and Wales, during the decennial period 1851-60. In the first named year the population was 17,927,609; in the latter, 20,066,224. The deaths at all ages per 100,000 living, of each class referred to, are given as follows: All classes, 2,217; fever, 91; diarrhoea, dysentery, and cholera, 108; scarlatina, 88; and diphtheria, 11.

THE BIRTH OF A PRINCE. The birth of an heir to the British Crown has given rise to the usual amount of congratulation in courtly phrases in the English papers. The extremely commonplace circumstances, however, attending the birth, have not failed to call out a certain degree of vulgar comment. The Prince of Wales and his wife were engaged on the day of her confinement in skating. Her accouchement was not anticipated until two or three months. She had felt some pain in the morning, but it was not ascribed to the true cause. Towards evening the symptoms became unmistakable. There was no preparation for the coming event; the accoucheur was in London; and there were no attendants worthy of the occasion. Dr. Brown, a country practitioner, had the honour of officiating at the birth. The physician-accoucheur, Dr. Farre, arrived from London just too late. The child was wrapped in cotton in the absence of all baby clothing, and from a neighbouring infirmary plain Mrs. Connor was selected to wet-nurse the infant. The medical attendants issued a bulletin announcing the happy delivery by the Princess of a Prince. Thus ended a scene in high life, not at all unlike that which often occurs in the humblest cottage. The *Saturday Review*, in a very sarcastic vein, ridicules the court customs on such occasions, and takes the medical attendants to task for announcing the birth of a Prince, as though a Prince could be born, and states that it was their duty to declare simply whether the child was a boy or a girl. (*Amer. Med. Times.*)

Original Communications.

PATHOLOGY OF BLOOD AND FEVER.*

By WILLIAM ADDISON, M.D., F.R.S.

[Concluded from page 204.]

Fever. When scarlet-fever is mild—pursuing its normal course—the lips of the patient and spots of eruption are of a florid scarlet hue. But if fever be severe, these parts assume a dusky aspect. And with the darkening hue of the blood, as we have said, cerebral disturbances deepen also. But what are the relations of the fever-poison to the blood-corpuscles? The presumption is that, when the blood is of a florid scarlet, the corpuscles are reacting energetically, expelling the fever-poison; on the contrary, when the hue of the blood is deepening, we say, that the reactions of the blood are languid and diminishing.

In fever, with a greater number of respirations in a given time, the amount of carbon discharged by the lungs has been found below the healthy standard. And: "from my analyses," says Simon, "a decided decrease of urea below the physiological mean is a characteristic peculiarity of the urine in continued fever." In fever, then, the natural excretions of blood are diminished. But a new poison—some form of contagious poison—appears.

The argument is that, the dark hue of the blood, and diminution of the natural excretions (carbon and urea), and the appearance of a new contagious poison, are evidence of disease of the corpuscles of blood, as distinguished from the liquor sanguinis.

In referring phenomena of fever to the blood-corpuscles, it is not difficult to perceive the relation of these cellular bodies to æriiform poisons. The atmosphere is always charged with terrestrial exhalations, which vary with climate, with the season of the year, and with the day and night. A special reciprocal action takes place in the lungs between corpuscles of blood and elements of air, and it is notorious that æriiform miasms give rise to fevers.

On the other hand, local disorders, disorders of diet (gout, scorbutic ulcerations, boils, eruptions, etc.) may be very strongly contrasted with phenomena of fever. The reason is, because the pathology of the liquor sanguinis is different from that of the corpuscles of blood. We have shown that poisons in the liquor sanguinis have a local action. But disorder of the corpuscles of blood is manifested by those general symptoms of distress comprehended under the term fever; because of the great sympathy between corpuscles of blood and elements of the nervous system as shown in drowning, inhalation of chloroform, etc.

It may be objected to this doctrine, which bases the reproduction of contagious poisons upon disease of the blood-corpuscles, and local disorders without fever upon deterioration of the liquor sanguinis, that it must be impossible to discriminate an illness arising from impurity of the liquor sanguinis, from illness occasioned by disorder of the corpuscles of blood; because these two elements are so intimately mingled together, that disorder of the one must be immediately communicated to the other. But this objection has been anticipated by the facts already related, and which are observable by every one; viz: that poisons in the liquor sanguinis act locally; that the brain remains unaffected by a poison in the liquor sanguinis which is severely disturbing some other organ; and, we have said, physiologists explain these facts by re-

* Abstract of two lectures delivered at Brighton, November 1863.