

Observations on the structure of the corpus luteum : and its value as a test of early pregnancy / by Robert Lee.

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OBSERVATIONS

ON THE

STRUCTURE OF THE CORPUS LUTEUM,

AND ITS

VALUE AS A TEST

OF

EARLY PREGNANCY.

BY ROBERT LEE, M.D. F.R.S.

(From the LONDON MEDICAL GAZETTE.)

LONDON:

PRINTED BY WILSON AND OGILVY, 57, SKINNER STREET.

1844.

OBSERVATIONS,

&c. &c.

FROM the dissection of five human corpora lutea, after recent impregnation, and from an examination of all the preparations of human corpora lutea in the Hunterian Museum of the College of Surgeons, I concluded that the corpus luteum "is neither produced by a thickening of the inner layer of the Graafian vesicle, nor by a deposit of a new substance between its coats, but that it is formed around the outer surface of both these coats of the Graafian vesicle, and that the stroma of the ovary is in immediate contact with the external surface of the yellow matter."

Before the paper containing this conclusion was presented to the Royal Medical and Chirurgical Society, these five corpora lutea, resulting from impregnation, were often examined by

Sir Astley Cooper, Mr. Wharton Jones, and other distinguished anatomists, who were all satisfied that both layers of the Graafian vesicle were within the yellow matter, and that this had no membranous layer, or any thing else, interposed between it and the stroma of the ovary. Dr. Todd, who was appointed by the Society to examine the preparations and drawings which accompanied the paper, came to the same conclusion. Sir Astley Cooper took a great interest in this subject, and after much investigation, said there was no fact in anatomy more completely demonstrated.

Soon after the publication of this paper on the structure of the corpus luteum, in the 22d volume of the Medico-Chirurgical Transactions, 1839, there appeared in the 53d volume of

the Edinburgh Medical and Surgical Journal, January 1840, Observations on Corpora Lutea, by Robert Paterson, M.D., in which the following statement was made:—"Professor Baer, of Königsberg, believes that the corpus luteum is nothing more than the internal membrane of the Graafian vesicle in a state of hypertrophy. This opinion, from the celebrity of its author, has been extensively adopted by the profession. The other view, which has been lately advanced by Dr. Lee, of London, is that the substance of the corpus luteum is deposited external to both layers of the Graafian vesicle, and consequently between it and the proper substance of the ovary. This opinion Dr. Lee has been led to advance, from having noticed in *one or two* early cases that he could divide the thick internal lining of the corpus luteum into two layers, while the external covering of it appeared to be simply the condensed cellular tissue of the ovary*. Before the appearance of Dr. Lee's paper, I had frequent opportunities of observing that the proper substance of the corpus luteum was covered by two membranes; first, by its cellular envelope, a continuation of the proper cellular tissue of the ovary; and, secondly, by an immediately investing thick and distinct membrane. Since then, however, I have paid additional attention to this subject, and have had much pleasure in demonstrating both these layers to Dr. Simpson, and a number of professional friends, as well as to the members of the Anatomical Society of the town. Any one may satisfy himself of this by a very simple experiment. Let him procure the ovary of a cow containing the corpus luteum. In this animal the parts are so large as to be easily distinguished. An incision is to be carefully made through the peritoneum and proper tissue of the ovary, and then turning their edges aside no difficulty will be experienced in turning out the corpus luteum from the ovary. On examining it we find that it is still covered with its cellular envelope. Upon cutting gently through this, and reflecting it, we find that the orange-coloured corpus luteum is still covered by a proper tunic, and when

this is cut through, and elevated with the forceps, the naked corpus luteum comes immediately into view. Now what else can this second tunic be but the external membrane of the Graafian vesicle? This arrangement may be demonstrated not in the cow alone, for it is easily to be seen in the sheep and pig, as well as the human subject. We cannot understand how Dr. Lee has fallen into this error, unless it be from the circumstance of not having examined the state of parts in the lower animals, where, as in the cow, they are exceedingly manifest."

Before the publication of my paper in the Medico-Chirurgical Transactions, I had examined the corpus luteum of the cow and sheep, and had ascertained that it is not covered by two membranes, but is likewise in immediate contact with the stroma of the ovary.

Dr. Paterson says, he "had many opportunities of observing that the proper substance of the corpus luteum was covered by two membranes," but his paper contains a reference only to five recent human corpora lutea, and in three out of these five there was no ovum found within the uterus to prove that impregnation had ever taken place, and that they were true corpora lutea, in the ordinary sense of the term. Dr. Paterson merely presumed that they were corpora lutea resulting from impregnation, and stated that they were so without furnishing proof. On what evidence his presumption rested that they were corpora lutea resulting from pregnancy, the following singular history will shew:—

"A lamplighter, residing in the Canonsgate, was indicted for the murder of his wife. It appeared that the parties had been married eight years, and had had no family. The man was a sober and decent person, while the woman was addicted to the use of spirits. Latterly she had become acquainted with a young man, whose frequent visits to her in the absence of her husband excited suspicion against them. This man, in a fit of passion and jealousy, inflicted on her head wounds which proved fatal. The uterine organs were removed at the inspection, and examined afterwards. The right ovary presented externally an enlargement of the size of an ordinary marble, of a dark purple colour, having several mi-

* The number of corpora lutea referred to and described by me in the paper, was five, and in all there was an ovum in the uterus or fallopian tube. Dr. P. reduces their number to one or two.

nute vessels ramifying on its surface; a distinct depression in its centre, and the appearance of a minute cicatrix. On cutting into it, the structure and appearance of a very early corpus luteum was observed, which was formerly described. The uterus contained an extremely soft decidual membrane, *but no ovum* could be detected, although minutely and carefully examined. Indeed, although this person had conceived, there can be little doubt, from the puckered and contracted appearance of the fimbriated extremities of the fallopian tube, which would hardly admit of a small probe to enter, that no ovum could have passed into them. In this case it is possible that the woman had conceived by her husband; but it is more probable that she had not, and that the husband had great cause of provocation.* But let us suppose," adds Dr. P., "that the husband had been absent for a month or so, and had inflicted similar blows on his return, it would have become a question of the greatest importance to have determined not only if that was a true corpus luteum, but whether or not it was possible to have been produced—the result of a conception before his departure. Although this case is in so far imaginary, yet the circumstances supposed are very likely to have happened, and the appearances observed in the ovary, if carefully examined, would either have been set down, on the one hand, as a clot of blood, or as bearing at least none of the marks of the corpus luteum, as described by authors."

The following description is given of this body by Dr. P. :—

"Upon making a section of this corpus luteum, blood exuded abundantly from the whole cut surface of the ovary. This blood having been gently removed, it presented very nearly the appearance seen in fig. 2. The cellular tissue of the immediately surrounding portion of the ovary was very much filled with blood, and the external margin of the corpus luteum was of an intensely dark colour; thicker, however, on one side than the other. The internal membrane, which was of a bluish colour, and partly filled with blood, was irregular in its shape; and between it and the dark external margin, formerly mentioned, the substance was of a brighter red colour, having dark striæ

or folds running through it. After immersion in spirits, these striæ assumed a yellow colour, and the internal membrane could, with delicacy, be raised up from the substance of the corpus luteum. The uterus of this case was a little enlarged, and contained an extremely thin and soft decidual membrane*."

From the preceding history and description, and coloured representation of this body in the ovary in a recent state, I was led to conclude that it was nothing but a coagulum of blood, such as I have seen in a multitude of cases where impregnation had never taken place, nor any suspicion of pregnancy been entertained. I had never observed a corpus luteum, in the earliest stage, undoubtedly resulting from impregnation, so completely resemble a mass of coagulated blood in the ovary. To call this a true "corpus luteum," or one resulting from pregnancy, seemed unwarranted. In all the true corpora lutea in my possession, the convoluted yellow matter was seen outside the two layers of the Graafian vesicle, interspersed with radiating bands; but nothing of this appeared from Dr. P.'s delineation, but the appearance of a clot of blood, with a layer of lymph or fibrine in the centre. These circumstances, conjoined with the following striking facts, viz. the appearance of a single layer, alleged to be the internal layer of the Graafian vesicle, in the interior, whilst there was said to be a proper capsule outside,—no ovum found within the uterus,—and the still more striking fact mentioned by Dr. P., that the fallopian tube was so contracted "that no ovum could have passed into it," fully justified me in drawing the conclusion, that this *red body* in the ovary was not the result of impregnation, and was *neither* a true nor a false corpus luteum, but a clot of blood.

With this conviction, I stated in my fifth lecture that I believed this to be a false corpus luteum (the term corpus rubrum would have been more correct), and made the following remarks upon it in a paper On the Value of the Corpus Luteum and Deciduous Membrane as Tests of Early Pregnancy, published in the MEDICAL GAZETTE, December 12, 1842 :—"It is inferred from this sin-

* The preparation is stated by Dr. P. to belong to Dr. Simpson, to whom he expresses his obligations for allowing him to examine it.

gular history, although no ovum, nor any vestige of an ovum, could be detected on the most minute and careful examination, neither embryo, vesicula umbilicalis, amnion nor chorion, that this murdered woman was pregnant, and that she was an adultress. Not only is the pregnancy considered a fact of absolute certainty, but the red clot of blood in the ovary, which does not present one of the characters of a true corpus luteum—into the composition of which there does not enter a particle of yellow matter—is described as a corpus luteum ‘a very short time after the rupture of the Graafian vesicle and escape of the ovule.’ An ovule which was never seen is presumed to have escaped from this ovary; but on dissection, though hunted out with the greatest care, it was nowhere to be found. My conscientious belief is, that a *fecundated ovum* never existed here at all, and that this woman, who had lived eight years with her husband, and was barren, and whose internal uterine appendages were in a state which rendered pregnancy impossible, or at least highly improbable, died during menstruation. I have so often seen all the appearances here described in the ovaria and uterus of women who have never been pregnant, that I have no doubt of the fact. If I were summoned into a court of justice, I would have no hesitation in declaring upon oath, from the evidence furnished, that the proofs of pregnancy were wholly wanting. With this deep conviction upon my mind, I could not avoid drawing the attention of my class to this case, and imploring them to be cautious how they gave evidence in courts of law to criminate unmarried women who have committed suicide, or died suddenly from any cause.”

“But,” says Dr. P., “the uterus of this case (woman?) was a little enlarged, and contained an extremely thin and soft decidual membrane. The utter worthlessness of the decidua as a test of pregnancy found in the uterus of this case (!) will easily be estimated from the following quotation from Dr. Blundell’s Lectures, and also the real value of the microscopical researches determined which have led to the revival of an antiquated and exploded error, viz. that the decidua is nothing but the altered mucous membrane of

the uterus.” The decidua is sometimes produced in cases of difficult menstruation; and it is important to remember that it may be mistaken for abortion. It resembles it in the pains, discharge of blood, &c. But the one presents an embryo, at various stages of increase, while in the other that is altogether wanting. It seems now agreed that the discharge of this membrane (recognised by Dr. Baillie to be similar in structure to the decidua) occurs frequently in unmarried females. It would appear to be generated spontaneously by the inner membrane lining the uterus.”

It was observed at the commencement of this paper, that “If from conviction I could alter my opinion on Dr. Paterson’s corpora lutea it would afford me the greatest satisfaction to do so; for I know from experience that the pleasure of renouncing an error is only equalled by the delight felt on discovering a new truth.” No opportunity, however, was ever offered me of arriving at this conviction.

Dr. Paterson considered these criticisms unjust, and as calculated to put an “incubus,” as he says, upon his character as an observer. Nearly two years after they had been published, he “resolved, by the advice of some professional friends (whose names are not mentioned), to submit the preparation to my inspection.” “My friend, Dr. Bowman, of Sunderland,” he says, “submitted it to you, not suspecting it was the identical specimen so much discussed.” It will be seen by the following letter that all the facts of the case were carefully concealed, in order that I might arrive the more certainly at a correct conclusion, and avoid the danger of error! To render the opinion which I was to give of the greatest weight, the preparation was wrapped up in linen rags, having the appearance, from their colour and smell, of having recently been employed at a post-mortem examination at Monkwearmouth! Nothing was said about the murder of the woman, of the decidua in the uterus, of the contracted tube, of the bright red colour of the mass in the ovary, and the blood which escaped in profusion when it was opened, nor of the four years the preparation had been in alcohol. It was not considered necessary for the re-

removal of the "incubus" on Dr. Paterson's "character as an observer" that any of these facts should be revealed.

Monkwearmouth, May 9, 1844.

Dear sir,—I venture to encroach on your valuable time, to ask your opinion of the accompanying preparation illustrative of a point to which the medical world knows you to have paid much attention.

Is the corpus luteum in this case a true or false one? It was taken from the body of a female upwards of thirty years of age. She died suddenly, and no accurate information could be gained regarding her last menstrual periods. Several medical gentlemen have examined the corpus luteum, and are so much divided in opinion about it, that they would feel deeply indebted to you to examine it, and favour us with your *decision* upon the question.

I hope you will have the goodness to excuse the great liberty a stranger thus ventures to take; but knowing your kindness, and having every confidence in your opinion, I have the honour to remain, your obedient servant,

HENRY O. BOWMAN, M.D.

Dr. Lee.

P.S.—As the preparation belongs to a medical friend, who was so kind as to allow me to examine it, I shall feel obliged by your returning it with your decision. If it were mine you would be heartily welcome to it; indeed I should have considered it my duty to have presented it to you.—H. O. B.

The following was the condition of the uterus and its appendages when they came to me:—

The *uterus* was not enlarged in the slightest degree beyond the ordinary size at the middle period of life in women who have never been pregnant. Its walls were compact, and the strata of muscular fibres could not be separated from one another as they always can be after recent impregnation. The lining membrane of the uterus was unusually thickened, but no part of it was covered with deciduous membrane. Under alcohol and water, with the naked eye and with the magnifier, I could not detect the slightest portion of this membrane adhering to the inner surface of the uterus, nor did the lining membrane of the organ present the appearance which it usually does when the recent decidua has been removed with the utmost care. The glands of the orifice and cervix uteri were not developed, and there was no change in

the walls, cavity, cervix, or orifice of the uterus, to indicate that recent impregnation had taken place. If, therefore, as Dr. Paterson states, "the uterus of this case was a little enlarged, and contained an extremely thin and soft decidual membrane" when first opened, the enlargement had entirely disappeared, and the thin and soft decidual membrane completely vanished, when the uterus came into my possession. Why "no ovum could be detected, though minutely and carefully examined, was now fully explained."

The *fimbriated extremity of the right fallopian tube* had adhered throughout nearly its whole extent by old, dense, false membranes, so as to fix the tube immoveably in its unnatural position, and render it incapable of performing its functions. Neither spermatic fluid could have passed from the uterus to the ovarium, nor could an ovum have been transmitted from the ovarium to the uterus. These firm false membranes had been extensively divided artificially, but by placing the cut ends in apposition, it was obvious that the corpus fimbriatum had been extensively, if not completely, adherent to the ovary, and that the tube must have been impervious. The condition of the tube and ovarium, therefore, fully confirmed the accuracy of Dr. P. when he stated, "that from the puckered and contracted appearance of the fimbriated extremity of the fallopian tube, which could hardly admit of a small probe to enter, that no ovum could have passed into the uterus." But, though "no ovum could have passed into the uterus," he nevertheless maintained "that this person had conceived."

A section had been made, as Mr. Wharton Jones describes, dividing the ovary and the body it contained into two similar halves. The appearance which this section of the body presented was like that of a firm dark clot of blood, having in its centre an elongated membraniform shred, one end directed towards the interior of the ovary, the other towards the exterior. From this shred, which was smooth on its free surface, processes extended here and there in a radiating manner into the substance of the clot-like body. The body in question was of a lenticular form, about six-tenths of an inch in diameter, and about four-tenths thick,

and projected on the surface of the ovary by somewhat more than half its diameter. The prominent part being covered only by the indusium of the ovary, the dark-red brown colour of the body shone through.

As Mr. Jones has further stated, I was disposed to consider the body in the ovary to be what to the naked eye its general appearance seemed to indicate, viz. a clot of blood containing a flake of fibrine, from which the red corpuscles had been separated. And on making a fresh section of one of the halves of the body in the same plane as the first, my belief was strengthened that it was not a corpus luteum resulting from impregnation; for the appearance which presented itself was such, that the naked eye could not well recognise it to be any other than that of a clot of blood. The extraordinary manner in which this body projected beyond the surface of the ovarium was the first circumstance that attracted my attention on examining it, and satisfied me that, although it had a yellowish colour, it was a false corpus luteum, and wholly unconnected with pregnancy. In no true corpus luteum resulting from impregnation had I ever witnessed this remarkable projection; but in several false corpora lutea in the Museum of St. George's Hospital it is so obvious that it immediately attracts attention. The appearance of the membrane in the centre of the clot was also widely different from the appearance presented by the empty Graafian vesicle within the yellow matter in all the early corpora lutea resulting from pregnancy which had ever come under my observation. The absence of the decidua within the uterus, the morbid condition of the fallopian tube, the unusual projection of the body in the ovary, the colour both of the old and fresh sections of it, which presented nothing but the appearance of a clot of blood, were the circumstances that led me to conclude, though totally ignorant of the history of the case at the time, that it was a false corpus luteum, and did not result from pregnancy. This opinion I expressed to Mr. Wharton Jones in the clearest possible manner before he commenced the microscopical examination of the body in the ovary, and during the investigation.

Mr. Jones thought that no conclusion should be come to, considering the

gravity of a decision on such a point, until the body had been subjected to a most careful microscopical examination, without which, indeed, he believed any decision would be mere guess work; coinciding in the propriety of this, I gave over to him one half of the ovary and the body in it for microscopical examination. Had I been aware that the preparation had been four years in alcohol I should not have permitted an appeal to be made to the microscope at all, knowing how little trust Mr. Jones puts in results obtained under such circumstances. I would have decided with the naked eye that it was a mere clot of blood in the ovary, and not a corpus luteum resulting from pregnancy, and on communicating this decision to the stranger at Monkwearmouth, would never have discovered the treacherous purpose for which he had sent it to me. The incubus would have lain on Dr. Paterson's character neither heavier nor lighter than before, and the ridiculous conspiracy into which he and his friends had entered would never have been revealed.

"Examined microscopically," says Mr. Jones, "the central membranous shred was found to present the following structure:—

"1. On its free surface a fine film of tessellated epithelium. 2. Invested by this epithelium was a stratum of finely interwoven transparent fibres, with dark contours, somewhat like elastic tissue. 3. Outside all was a layer identical in structure with the stroma of the ovary; the same structure as that composing the principal thickness of the walls of Graafian follicles."

"The membranous processes possessed a similar structure, and were found to be continuous with the stroma of the ovary. That part of the body next the substance of the ovary had, by its pressure, so condensed the stroma at the place, that the latter looked somewhat like an external capsule sending processes inwards, which met and interwove with those sent outward by the central membranous shred. But that the appearance of external capsule was the result simply of matting of the stroma of the ovary by pressure, is shown by the circumstance that it was absent at the peripheral part of the clot-like body, there being there, as already said, merely the indusium.

"As to the microscopical characters

of the clot-like matter itself:—this was found to consist of granulous corpuscles, somewhat like so-called compound inflammation globules closely aggregated, and red blood corpuscles interspersed amongst them. The latter had lost some of their colouring matter, but the granulous corpuscles were tinged red, as if they had imbibed it.

"The conclusion which is to be drawn as to the nature of the body from this investigation is, that it is a true corpus luteum in an early stage; that the central membranous shred is the wall of the Graafian follicle, from which the ovum had escaped; and that the clot-like mass (which would have by and by acquired the characteristic yellow appearance of the corpus luteum, traces of which, indeed, could in some deep places be detected), together with the membranous processes extending through it from the central shred to the stroma of the ovary, is the stroma surrounding the Graafian follicle infiltrated with bloody-looking matter.

"I say *bloody-looking*, for although it is certain that there is some blood present, it remains a question what sort of matter the granulous corpuscles were developed from—blood effused in substance, or exuded lymph?"

Here it is evident Mr. Jones employs the term true corpus luteum from a consideration of its anatomical structure alone, not venturing to decide positively on the nature of its relation to conception.

"According to this view," adds Mr. Jones, "the formation of a corpus luteum would be quite independent of the contact of seminal fluid with the ovary or ovum, and consequently independent of impregnation. And that it is so has been already established, as regards the lower animals, by the experiments of Haighton and Blundell on rabbits, viz. that though by obliteration of some part of the female genital passages, the access of semen to the ovary was prevented, still Graafian follicles were observed to have burst, and corpora lutea formed *post coitum*.

"The same circumstance appears likely to have held in the case of the woman whose ovary forms the subject of the preceding observations, for Dr. Lee informs me that the fallopian tube of the same side was diseased and contracted, if not obliterated, and that

the uterus had undergone none of the changes usually observed in its cavity and cervix after recent impregnation."

On the microscopic evidence thus furnished to me by Mr. Jones, and upon that alone, in opposition to the opinion I had formed with the naked eye, I admitted that this body in the ovary was a true corpus luteum; but the term was employed by me in the sense in which it is understood by Mr. Jones, and as furnishing no proof of impregnation. I never for a moment contemplated going to the Medico-Chirurgical Society and describing this body as a true corpus luteum resulting from impregnation. Had I not been most happily prevented by want of time, the whole truth now stated would have been communicated to the Society, and it would never have been discovered that the ovarium belonged to the lamp-lighter's wife.

And that the same view regarding the nature of the body in the ovary as that which I originally took will still be taken by the greatest anatomists, appears certain from the following opinion given of it by Professor Owen on the 7th of August last:—"Independent of any history connected with it," said Mr. Owen, in the most positive and unhesitating manner, after a careful examination, "I would give the opinion that it is a false corpus luteum. It would formerly have been stated to be a true corpus luteum, and affording undoubted evidence of pregnancy; but I do not think that any person conversant with the structure of corpora lutea resulting from pregnancy would regard this as a normal specimen of that structure. I should never have thought of giving a decided opinion of impregnation having taken place from the presence of this extravasated blood in the ovary around an ovisac." Professor Owen's opinion, therefore, coincides with that originally given by me, and may be considered as settling the point in dispute.

If I were now summoned into a court of justice, I would have no hesitation in declaring upon oath, from the evidence furnished, that the proofs of pregnancy were here wholly wanting.

I would now willingly take leave of this subject, feeling that enough has been done to establish the truth, but there are other circumstances connected with the affair which it becomes abso-

lutely necessary for Drs. Paterson and Bowman to explain to the satisfaction of their professional brethren. Three letters were sent by me to Dr. Bowman respecting the preparation in question, but no copies of these were kept by me. The first of these letters, I recollected distinctly, was written about the middle of May, 1844, the second about the 20th May, and the third near the end of June. The second and third of these letters were duly acknowledged to have been received by Dr. Bowman, but no acknowledgment was given by him that the first letter had ever reached Monkwearmouth. This circumstance was remarked at the time, but it raised no suspicion that anything wrong was intended, or that the fact would be questioned that such a letter had been sent. All these letters Dr. Bowman positively affirms were sent forward to Dr. Paterson, and they were all consequently in his possession when he wrote to me as follows on the 26th July:—"Under these circumstances, I resolved, by the advice of some professional friends, to submit to your inspection the preparation of the disputed corpus luteum itself. My friend Dr. Bowman, of Sunderland, submitted it to you, not suspecting that it was the identical specimen so much discussed. You have declared to Dr. Bowman, in two letters which I have now before me, that the body which had not one of the characters of a true corpus luteum is really a true corpus luteum in an early stage." In reply to this, I stated that I had not preserved copies of my letters to Dr. Bowman, and requested Dr. P. to send copies of them to me. On the 2d August this request was complied with, but in an imperfect manner, the second and third being sent, but the first not. The second bore the date of May 22d, the third of June 26th. My first letter to Dr. Bowman, which had been written previous to the 22d of May, continued to be unacknowledged. Dr. Paterson made no mention of it whatever, though I considered it absolutely impossible for the opinion given by me in the second letter to be understood at all without the first. No time was lost by me in writing to Dr. Bowman for information respecting the three letters I had sent to him, but the only circumstance he could recollect about them was that

they were all in Dr. Paterson's possession.

Monkwearmouth, 6th August.

My dear sir,—As soon as I received your letter, I wrote to my friend Dr. Paterson, who *had your letters in his possession*, to furnish you with copies of them as you requested, which, from a letter I received yesterday, I hear he has complied with. This is my apology for not having acknowledged your letter ere this.

I take this opportunity of assuring you that I was totally ignorant till some time after I had forwarded the preparation to you, that this was the corpus luteum about which you and Dr. Paterson had differed in opinion.

The trouble you have taken and the kindness you have shown in complying with my request, place me under an obligation which it will be my study at the first opportunity to repay.—I remain, your obedient servant,

H. O. BOWMAN.

Dr. Lee.

Monkwearmouth, 7th August.

My dear sir,—In reply to your letter I received this morning, I beg to inform you that my friend Dr. Paterson has *all your letters at present*, and I do not recollect their dates; but should you desire it, I will apply to him for the information you request.

I remain, ever yours,

Dr. Lee.

H. O. BOWMAN.

Finding that Dr. Bowman did not furnish me with the dates of my letters, I wrote to endeavour to ascertain their number; but his answer in regard to this point also supplied me with no information. He affirmed, however, again positively that they were all in Dr. Paterson's possession.

4, Saville Row, 8th August, 1844.

My dear sir,—I have again to request that you will, by return of post, inform me whether you did not receive from me more than *two* letters relating to the preparation in question. The dates are of no importance, but it is of the greatest that I should receive a positive answer to my simple question. You cannot fail to remember the number of my letters.—I remain, dear sir, very faithfully yours,

ROBERT LEE.

Monkwearmouth, 9th August, 1844.

My dear sir,—I cannot at present give you an answer to your question, as *Dr. Paterson has all your letters referring to the preparation in his possession, and my memory will not allow me to speak positively*. I will write again to Dr. P., and will be able, in the course of a day or two, to give you a

positive answer.—I remain, dear sir, your obedient servant,

H. O. BOWMAN.

Dr. Lee.

The following letter was addressed to Dr. Paterson on the 5th August.

London, 4, Saville Row,
5th August, 1844.

Dear sir,—I wrote another letter to Dr. Bowman, before the 22d May, 1844, of which you have not forwarded a copy to me. I am much obliged to you for the copies of the *two* you have sent, and I trust you will feel entirely satisfied with the account which Mr. Wharton Jones will give in the next number of the Medical Gazette of his microscopic examination of the body in question.—I remain, dear sir, very faithfully yours,

ROBERT LEE.

To Dr. Paterson.

Leith, 10th August, 1844.

Dear sir,—I beg to acknowledge the receipt of your letter dated August 5th, which would have been replied to sooner, had it not been that I expected, ere this, to have heard from Dr. Bowman in answer to a letter sent to him immediately after the receipt of yours. You *accuse* me of having kept a letter which you wrote to Dr. Bowman, of a previous date to those copies of which were sent to you. In reply to this *accusation*, I have to state that I never received any letter of yours from Dr. Bowman of a prior date to those the copies of which were sent you. In addition, you make no reference to a previous letter in the first one I received of the 22d May, and I am convinced, that, had any previous letter arrived, such would have been immediately communicated to me by Dr. Bowman. As soon, however, as I receive an answer from Dr. B. I will write to you.

I shall be glad if Mr. Jones's statement of the question in dispute between us shall be satisfactory to me.—I have the honour to remain, your obedient servant,

ROBERT PATERSON.

Dr. Robert Lee, London.

On receiving this letter I resolved to have no further correspondence with its author, and stated this to him.

The following letter has been published by Dr. Paterson in the last number of the Edinburgh Medical and Surgical Journal, No. 9, in the correspondence said to have taken place with Dr. Lee. This letter was never sent to me (at least no such letter was ever received by me), but the date and other circumstances prove that it is a spurious edition of the last letter, and it shows how Dr. Paterson was

actually employed at the time in raising up an insinuation of his own, into an accusation against himself, which had never been made by me. The reader will see that there was no insinuation or accusation made in my letter of the 5th August against Dr. P., nor did I suppose, at this time, that there existed an individual in the medical profession, or any other profession in Great Britain, so base and unprincipled as to attempt to suppress a letter in a scientific correspondence for the purpose of convicting another of a gross contradiction against himself.

Leith, 9th August, 1844.

Dear sir,—I beg to acknowledge the receipt of yours of the 5th instant, which would have been answered sooner, but that I have been waiting for a reply to a letter sent to Dr. Bowman, for the purpose of ascertaining whether or not there was a previous letter to those, copies of which were sent to you. I was astonished to observe your *insinuation* that I had kept back a letter which you wrote to Dr. Bowman, of a previous date to those copies of which were sent you. In reply to this accusation, I may state, that I never received any letter which you had communicated to Dr. Bowman prior to the date of those the copies of which were sent you. In addition to this, however, in your letter of the 22d May, you refer to no prior communication to Dr. B. which I think under the circumstances, would have been referred to. I am equally convinced that Dr. Bowman did not receive any previous letter, otherwise it would have been forwarded to me. I am sorry that I have not heard from Dr. Bowman before this time, for it has delayed my reply to your last letter longer than I intended.

I shall be glad if Mr. Jones's statement of the question in dispute between us shall be satisfactory to me.—I remain, your most obedient servant,

(Signed) ROBERT PATERSON.

Dr. Robert Lee.

Dr. Bowman, whose memory, on the 9th of August, would not allow him to speak positively about the number of letters he had received from me, would appear to have had this faculty restored to him in a miraculous manner the following day, for he then distinctly recollected their number and their dates, as is shown by the subjoined letter from Dr. Paterson. In this letter Dr. P. now acknowledges the existence of the letter from me to Dr. Bowman which he had previously denied, and

complained of my accusing him of suppressing it.

Leith, 12th August, 1844.

Dear sir,—I presume that you will by this time have heard from Dr. Bowman himself regarding the number of your letters to him. I may state, however, that they were three in number. The *first*, dated May 13, acknowledges your receipt of the preparation; the *second*, dated May 22, contains your opinions regarding it; and the *third*, dated June 26, accompanies the return of it. These, Dr. Bowman distinctly states, were the only letters received from you in connexion with the preparation sent you.

I have just seen Mr. Jones's description of the preparation, and more especially of the corpus luteum in question, in the *Gazette* of Saturday last. It contains one or two most important errors which it will be necessary to have corrected. Before doing so, however, I am anxious to know if Mr. Jones's letter contains all the statements you propose to make public regarding your unjust criticisms on the case, and as more especially stated by me in a former letter?

I should feel obliged by your communicating to me, with your earliest convenience, if any further statement on the subject is to be made public.—I have the honour to remain, your obedient servant,

ROB. PATERSON.

Dr. Robert Lee, London.

This acknowledgment of the receipt of my first letter of the 13th May, was not, however, accompanied with a copy of this letter. It was still withheld, and is now withheld, for no duly-authenticated copy of this letter has yet reached me: nor have any authenticated copies of the second and third yet been obtained, though I have applied to the proper quarter for these. Considering the inaccuracy of the published copies of the letters Dr. P. sent me, no dependence can be placed upon the accuracy of the copies he has published of those I sent to Dr. Bowman.

W. J. Dodd, Esq. of Monkwearmouth, called upon Dr. Bowman, at my request, to demand an explanation of his conduct in this affair, and to inform him that until he revealed the whole of the circumstances I would consider him to have acted throughout with anything but professional honour and honesty. Mr. Dodd informed Dr. B. that I would not free him from knowing collusion in the transaction unless he wrote a full and satisfactory account of his share in it. He told Mr. Dodd that he was to be away from home for

a day or two, but that on his return he would write to me. Fourteen days elapsed, but Dr. Bowman remained silent, and insensible to the accusations personally made against him by Mr. Dodd. With the view of once more testing the retentiveness of his memory, and obtaining a more full development of his character, I addressed him as follows on the 24th of August, with the desired effect:—"You have now had abundance of time to refresh your memory, and can tell me, no doubt, every thing respecting the first letter I wrote to you, and whether it was impounded at Monkwearmouth, or actually sent forward, with the others, to Leith, as you stated in a former letter. Your friend in the north threatens to publish the correspondence between you and me. I hope you will take care, before he does so, that my first letter is forthcoming, and that it is published with the others. Truth has nothing to fear. A man who conscientiously tells the truth has only to go on in his course; but a man who departs from the truth has everything to dread. Mr. Dodd will again soon call upon you to receive from you those explanations which are evidently required to clear your character from the suspicions under which it must lie until you reveal all the circumstances connected with this affair. Your first letter to me led me to form a very favourable opinion of your candour and integrity: I pray that my good opinion of you may continue unchanged."

After receiving this letter, Dr. Bowman went to his old and intimate friend and associate, Dr. Paterson, of Leith, where not only his memory, but all his other intellectual and moral faculties, appear to have become bewildered. Once more it will be seen, in the following letter, that he denies the existence of my first letter of the 13th May, which he distinctly stated to Dr. Paterson on the 12th August had been received by him, and which he had before thrice affirmed was in Dr. Paterson's possession. It will be further observed, that Dr. Bowman suggests the propriety of my forging a letter to supply the place of my first letter, which, in his loss of memory, he wished to annihilate, but which was at the time in Dr. Paterson's possession. In his state of

bewilderment, Dr. Bowman steps boldly forward to give an implicit denial to an insinuation that another letter was received by him than those that had been acknowledged. The insinuation is contained in no letter written by me; it is made by Dr. Bowman himself, like the insinuation and accusation justly made by Dr. Paterson against *himself*. It is made by Dr. Bowman obviously for the purpose of perverting the truth, and causing it to be believed that I claimed from him the restitution of a fourth letter, which had no existence. In the Edinb. Med. and Surg. Journal, Dr. Paterson has followed the same course, for a similar purpose—misleading the reader who is unacquainted with the facts. Dr. Paterson says, Dr. Lee “declares that there was another letter to Dr. Bowman (the gentleman who sent the preparation for me) more than those the copies of which I transmitted to him.” I repeat the declaration, that no copy of my first letter was sent to me by Dr. Paterson at the time its existence was acknowledged both by him and Dr. Bowman, and, therefore, that there was another letter more than those the copies of which were transmitted to me. The acknowledgment was made, but the letter was still withheld.

Leith, 27th August.

Sir,—Your letter of the 24th August, through Mr. Dodd, has already been duly acknowledged, and I have now again to state that no refreshing of my memory can ever make me produce a letter which had no existence. You are already in possession of the dates and general import of all the letters I received, and Dr. Paterson has transmitted copies of them. I now give an

implicit denial to your insinuation that another letter was received than those that have been acknowledged. The *onus probandi* therefore lies with you. Probably you will be able to concoct a letter for the purpose, and to favour me with a copy of it, and add an additional eulogium on *truth*?

The freedom of access which I at once gained to you, and your obliging letters to me, a stranger, gave me a favourable opinion of your goodness. Your last discourteous letter, however, has dissipated all such ideas, and renders it necessary for me to refuse all further correspondence with you.—I have the honour to be, your obedient servant,

H. O. BOWMAN.

Dr. Lee.

To complete the portrait of H. O. Bowman, M.D., of Monkwearmouth, it will only be necessary to add the following letter:—

Monkwearmouth, 27th May.

My dear sir,—I feel exceedingly obliged and grateful for the attention and trouble you have taken in examining and giving me your opinion of the preparation I took the liberty of forwarding to you. It is very gratifying to me that you, whose opinion bears such weight in the medical world, should have come to the same conclusion *I had already formed*, namely, that it is a true corpus luteum.

I have communicated with my friend, who will be happy to let you retain the half of the ovary as you request, but as he has some intention of publishing the case at some future period, he would wish you to return the remainder as soon as convenient.

I take this opportunity of returning you my sincere thanks for your kindness and attention.—I have the honour to be, your obedient servant,

H. O. BOWMAN.

Dr. Lee.

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