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The Corpus Luteum
Its nature, origin, and
Value as a sign of conception
The subject, upon which I have resolved to write my graduation Thesis, viz. The Corpus Luteum, its origin, nature, and value, as a sign of conception, is one evidently demanding serious, and mature consideration, & on which, however much research may already have been bestowed upon them yet remains a great uncertainty, with regard to it, as still to leave ample room for its further investigation.

When first commencing the consideration of the subject, I endeavoured to divest my mind of any prejudice, on the one hand, or prepossession on the other, towards any view, formerly entertained, with regard to it, but, with a simple eye, resolved as far as possible, to judge for myself, not hesitating to follow the opinion of any authority, if my conviction after a personal investigation led me to do so. The result of my limited, but careful investigation.
of the matter, now seeming to me in a few points, slightly different from the authorities I have consulted on the subject, many of them so eminent, and able; I have been with no small degree of diffidence, that I have ventured to advance my own views.

Many, indeed, most investigators of the subject have described two varieties of Cupra Lutea, the Tree, and the False, the former only and always occurring as a result of impregnation; therefore looked upon as an unequivocal proof of conception, the latter on the contrary, wholly independent of impregnation, and met with under a variety of conditions. It is proposed, however, in this paper, to limit the term Cupra Lutea only to those bodies, which are found in the Graafian vesicles after the expulsion of an ovule, whether the latter be subjected to impregnation or not. The question as to their being any difference in the origin, and constitution of these so-called varieties, as by which, we might have had an opinion, as to conception having or not having
The Graafian follicles, as it were, diminutive uteri, for the accommodation of the delicate tiny germs, prior to their expulsion from the ovary, and further development in the preparatory cavities. They are for the most part situated not in the cavity of the ovary, but toward its periphery, so that on section of the organ, the parenchyma appears to separate into a medullary and a cortical substance, in the latter of which only the sacks are imbedded.

The walls of these follicles may be described as consisting of two membranes, an external and an internal, the former the tunic of the ovule, the latter the corium. It is highly import
that the structure of those linings should be thoroughly understood as they will subsequently be seen. To play a most active part in the formation the body about to be considered.

The external membrane, by its outer surface, is in contact with the stroma of the ovary, a small quantity of cellular tissue being frequently interposed, it can be detached, but with considerable difficulty from the stroma; by its inner surface, the closely applied to the outer aspect of the ovisae, it is not however so adherent to the latter as to the stroma, so that the two membranes can be easily separated from each other. When this is effected, its inner surface is seen to be smooth, glistening, being lubricated by a clear fluid.

In its microscopic structure, it consists of fibrous tissue, intermixed with numerous mostly fanciful cells, this highly vascular, and so capable of being beautifully injected, it possesses considerable strength and thickness.

The inner membrane, or ovid 

The inner membrane, or ovidae, forms the


lining of the Graafian Cavity, it surrounds it entirely, constituting a sort of sac enclosing the fragile ovum in a small quantity of granular fluid, with which, of course, it is in contact by its inner surface. We have already considered its relation to the ooleuc lining, here its structure differs entirely from that of the tunica of the ovule; it is a very thin, delicate, clear, almost transparent, smooth membrane, and is wholly destitute of vessels. By means of the microscope, its minute structure is revealed; it is seen to consist of very delicate roundish, or polygonal cells, with nuclei, and a considerable amount of granular matter, both of which latter characters are invariably as in the case before us, associated with, and indicative of activity of function.

Now it appears evident, that these two membranes are being subservient for the nutrition, as well as use of the ovum, and also for its ultimate expulsion; constitute an efficient though perhaps imperfect form of secretory apparatus; the two combined resemble closely a second membrane.
The internal lining of the follicle may thus be regarded as a secreting membrane. As we have already noticed, it is composed of nucleated cells, to the agency of which structures, so much importance is now attached, in connexion with the secretory process, by these special ingredients of secretion are selected and prepared, and finally discharged, either by exudation, or more commonly by the agency of the cell wall itself; but, in order that they may carry on, and perform this selective function, they are at or the membrane, now under our notice, placed in close intimacy with the reservoirs of material, the arterioles tubes for we have already noticed, that, the external membrane was pelt by supplied with blood vessels, and in intimate, close contact with the inner.

Having thus endeavoured to describe the structure of these vessels, or sacs, in which the oöcytes latra are accommodated, it will now be interesting to trace the peculiar changes.
which take place in those cavities, in connexion with the expulsion of the ovum, and the fixation, and substitution in its place, of the Corpus Luteum.

From the commencement of puberty, up to the point of involution, the ovaries are the seat of internal detachment of ova, by adhesions of the Graafian vesicles, which independently of sexual intercourse, takes place in women and virgins, above all at the menstrual period.

For some time prior to, and on the occasion of each separation of ova, at the catamenial periods, the ovaries are found to be in a state analogous to inflammation; they are at this time characterized by a higher degree of vital action, an increased supply of blood is sent to them, their vascular system is become engorged and turgid, the vessels even more numerous than formerly. The Graafian vesicles partake equally, along with the peel of the ovary, in the increased vital activity. The external membrane has also increased in its bulk.
and became thicker, the internal membrane however does not seem to undergo any change in regard to thickness, but still to retain its own delicate cellular structure. For a considerable time previous to the occurrence of the largest egg, the Graafian vesicle contains a quantity of fluid, evidently secreted and poured out into the cavity by the walls provided for that purpose. This secretory function it during the menstrual period, likewise highly intensified, and as a consequence, a smaller amount of fluid is poured out, and accumulates in the vesicle. The natural result of this is the distention and enlargement of the Graafian cavity, to which its walls are necessarily put upon the stretch. Now in this, as in any other circumcised cavity, where fluid has accumulated, these parts of its walls yield most readily, which are nearest the free surface, the variety of the cavity, therefore becomes thinner and thinner, from the surface of the fluid within, and begins to form a projection from the surface of the ovary, the tuba of which
on their turn, begin to suffer from the increased pressure excited on them by the steady and rapid enlargement of the Graafian sac, so that the tunica Albuginea along with the peritoneal coat become remarkably distended and thinned, and the protuberance on the surface of the ovary more marked. The vesicle is now said to point, and shortly afterwards the walls unable longer to resist the increasing distention at last give way, an aperture or rent is formed, through which the fragile ovum, with its granular matter, and fluid, is liberated from its little prison, now to be carried into the Fallopian tube, and carried to the uterine cavity. These four coats, though without the germ (must necessarily pass, give way on after the others, from within outward,) the ovum being the first the peritoneal that the last to rupture. If a drop of the fluid which filled and distended the sac be microscopically examined, it is seen to consist of an immense number of granules, floating in a thin, and transparent fluid.
The opening, or rent in the walls, through which the contents of the cavity pass, is of considerable size, but the natural elasticity and tendency of the structure of the organ to assume its former condition very quickly closes, a cavity is formed which, in some cases, appears to remain permanent, in others to be rapidly effaced.

It might be supposed at first sight, that after the expulsion of the same had been effected, the secretion arising from the organ would be suddenly arrested, and any further quantity of fluid be prevented from gathering in the cavity. But nature does not thus seem to act. The condition near the site of secretion remain unaltered and entire, the two membranes are not separated, (as is constantly asserted, by the deposition, between them, of the Corpora Cavernosa, they are to firmly adherent to each other; but they remain as formerly in close, and intimate contact, and appear still to continue secreting out a fluid, which, when examined microscopically, reveals itself to be of the same
granular constitution, as that formed in the cavity, prior to the emission of the ovum, but with the addition of a quantity of blood dies and an alteration in colour, for it must be remembered, that from the congested state of the vascular system of the whole organ, at the time of rupture of the vesicle, a considerable quantity of blood escaped, and entered the Graafian cavity so that on examination of the latter, immediately after the escape of an ovule, there will be found in it, perhaps a clot, but more frequently a sanguineous looking fluid, which, when viewed microscopically, is seen to consist of blood corpuscles, a large amount of granules, and a quantity of fluid, in fact the two fluids the granular, and the sanguineous, have intermixed, a circumstance which the microscopically infallibly demonstrates. Of the existence of a clot, has been recognized by many writers on the subject. Thus Mr. Jones, in describing the microscopic appearances of the structure, found in the Graafian vesicle, of a human ovary, very soon after rupture of the cavity, states that...
that it was found to consist of granulous or
pules, and red corpuscles intermixed
among them, the latter had lost some of the
colouring matter, but the granulous corpus-
cules were tined red, as if they had recelved
it." and again he says, "It remains a ques-
tion, what sort of matter the granulous cor-
puscles were developed from."

This red mass of blood, or granular matter
once occupied the whole interior of the vessel,
although it has been avoured by some, that
a cavity exists in its centre from its earliest
period of existence. I have, I never met with
this condition present as an early stage, thou-
gh frequently at a later, the blood now coagul-
ates it becomes slowly absorbed; and in doing
so, proceeds by degrees from the walls of the
cavity, from which the secretion is still lea-
ing poured out, but much slower and in
greater mass, diminished quantity than
formerly, and now the appearance of the ca-
ty on section, is visibly altered, for instead
of presenting, as it did at first, merely a
red
red mass, occupying the whole extent of the
vesicle, a phlobia also, such as Dr.
Paterson has described as occurring in a
branch of a human ovary, about a fortnight,
the trunk, subsequent to impregnation. There
is seen then, a reddish grey Central Coagula-
rum, with a yellowish margin extending
round it. How this grey a dirty red Coagu-
larum in the Blood, undergoing the usual
changes accompanying its absorption, and
the yellowish matter is, undoubtedly, the Se-
cernin, which is forced out from the inner
lining of the Cavity, but mixed the fluid,
for it seems to undergo absorption, very quick-
ly, along with the fluid part of the Blood.
if this yellow matter at this stage, be microsco-
ically examined, it will be found to consist
exactly of the same granular constitution, as
the fluid poured out from the vesic. It con-
sists mainly of an immense aggregation of
granules, this is the first appearance of the
Exsud Lutrum, and at this stage of its de-
development, it is generally of the consistenc
of thick paste, but afterwards, as its fluid is more and more absorbed, it acquires gel or gumness. In the course of time, perhaps three or four weeks after rupture, but the period seems to vary considerably, the clot, still having continued to be absorbed, presents at the time either of the following conditions appear succeed, dependent, it may be, on the circumstances about to be referred to.

1. If the quantity of blood escaped, into the cavity, be small, it may have been rapidly absorbed, and in this case, would leave a distinct cavity in, or near the Cæcum of the Corpus Luteum, lined by a true white membranous structure, the last trace of the clot.

2. If the clot be small, and the increase of the Corpus Luteum be steady, and rapid, thus exercising pressure on all sides of the clot the latter will appear, as a fibrous looking mass, without any cavity.

3. If both the increase of the Corpus Luteum be rapid, and the absorption of the clot be rapid, the latter may present only the
appearance, of a line, with it may be, bands extending from it, into the substance of the cleft lumen, giving it a stellate appearance.

If the clot be small, if absorption rapid, & secretion active, it may disappear entirely. It is much more probable, that it usually, though not always, undergoes all these conditions in succession, till it is entirely obliterated. Condition (3) therefore would seem to be that into which (1) and (2) are ultimately developed, & condition (4) that, which, all the former (may, or may not, at one time or other) assume.

Now this fibrous structure, which, is frequently seen to present itself, has been supposed by many to be the inner membrane of the vessel, displaced inwards, by the encroaching capsule. It seems, that this is in all probability, a very grave error, will be shown in another part of this paper. Besides this complete or partial destruction of the absorbing clot, the yellow structure appears evidently to have continued evolving.
and if a cavity existed in the centre, gradually
its contents, and ultimately obliterate it, as
has been already noticed. That the body in-
creases in size, for a considerable period, befo-
et it reaches its fully developed state, is a
fact, now I believe, admitted by all; that
it is the case there cannot be any doubt,
for, it is invariably found, that, up to a
certain time, that, being generally between
four and six weeks, the size is larger, the
later we examine it. If, when the Cortical
Suture has been fully formed, we exam-
ine its condition, we still find the exter-
al wall present, and possessing its fibrous
Cortical Character, whilst the inner seems to
have become partially obliterated, and
what remains of it, to be finely amalgam-
ated, with both the Cortex Suture on its
inner, and the fibrous Tunic, on its outer.

It seems also to have lost its former (nucleat-
ed Cellular Character, which apparently be-
tened) effaced, as soon as its own peculiar
function has been performed, and this func-
tion
as we have already observed, not abruptly, but gradually, and slowly checked.

We have now traced the process of development of the body, under our consideration, in its different stages of formation. It is only a temporary structure, ready again to undergo absorption, but before considering its mode of disappearance, it may be well to describe briefly its external characters, and microscopical constitution.

The Caput Latum is generally a body of an oval or round figure, although it frequently exhibits slight deviations from either of these forms. Its size varies according to the time, at which, it is examined, subsequent to the rupture of the vesicle, in which it is deposited. If it is one of uterine discharge during pregnancy, it will become much larger, during the first month, of the term of utero-corporeal, than in the latter, and in the same manner, if it is one occurring after a menstrual period, not followed by pregnancy, it will be found larger, if examined imme-

ately
before the crest (carnival period), than after it. this point, however, will be further dealt upon, when the absorption of the body comes to be treated of. Usually occupies, in the human ovary, when fully grown, the fourth or fifth part of the whole area of the organ. In the lower animals, the proportion is the same as in the ovary, is much larger; in the cow, I have often found it in section, to occupy nearly the whole area of the ovary, in the pig, &c. Two thirds.

Its name indicates its color. It is yellow, &c, often described as resembling the buffy coat of blood. It varies much in different animals. In the sheep it is commonly of a dark brownish red hue, as is seen in the specimen I have humbly endeavored to represent, and would perfectly bear the name of Cup Rubrum. In the cow, they are very beautiful, presenting often a brilliant yellow, or rich golden tint. In the sow and rabbit, they are similar in color to those of the sheep. It may, however, though faintly, differ in color in the same class.
of animals). For instance, in figure 2, a crescent-shaped object, if it is bright yellow in color, in figure 1, however, if it is dark red, it might have been that the C.D. in figure 2 was undergoing absorption, and that in doing so it had changed its hue. If this be so, it is also probable, that, they change in color from yellow to red, as immediately above the large one, there is represented, and was found, another crescent-shaped object of a distinctly red color, still surrounded by its outer tunic, but apparently in its last stage of absorption. (Fig. 2) is the only instance in which I found a C.D. of a yellow color on the sheep, no such body was found in the other, a footed of considerable size was found in the exterior. This difference of color in different animals had seemingly been the source of some wonder, I have afforded considerable description to many observers, but to me it would seem quite strange, if they all presented the same color, seeing it holds almost a general rule, that, the same organic structures
solid, but more especially fluid, occupying the same position, and fulfilling the same office, differ in different classes of animals, and frequently in different animals, of the same class, in their external characters, chemical composition and many other points. A host of examples might be adduced; the pigment of the eye, differs in animals widely; the milk is often altered in its chemical constitution in different animals. The wine also, both in its composition and colour, furnishes an example of this same general law.

The corpus is of a firm consistence, and fixed. On section, it presents a lobulated appearance, with very minute figures, running from its centre, to its circumference. It frequently also possesses a complicated arrangement, which character, from their illustrations, and drawings, some authors have, in no small degree, exaggerated. The manner, in which, these follicles are formed, is easily applicable, for the body.
as we have seen, is a body, which increased by, and becomes, that is by additions made to its outside; so that, as long as the secretion is poured out, and absorption goes on, that part of it which is nearest the buche of the cavity, which is oldest, and has of course been longer subjected to the action of the absorbents, will be of former consistence, than that round the circumference of the cavity, and only recently thrown out. If this follows, that, from its &rogeneous mode of development, the former part is pushed inwards, the buche by its encroaching growth outside, and in doing so, in order to adapt itself to the smaller space occupied by the disappearing &c. it must necessarily assume a placated arrangement. The next point of inquiry, that naturally suggests itself to our notice is the existence or non existence of blood vesels in its substance. Probably they do exist in its fully formed state. I have repeatedly made attempts to inspect them, but invariably failed; of course, this cannot disprove their
that vascularity, since many accurate observers, as Montgomery, Cheraw, Baer, D'A Scharp, have completely succeeded in throwing colour into their fields.

We have already alluded to its microscopic constitution, it may be again remarked, that it is simply granular, with, as it begins to undergo absorption, a few oil globules interspersed. This character is, I think, acknowledged by all microscopic observers.

After having reached its maximum development, the C.S. seems to remain stationary for some time, and then gradually, and slowly, with its disappearance, i.e. fatty degeneration, and final absorption. The period at which this process of degenerative commences, has not as yet been satisfactorily determined. If the existence of this is concurrent with pregnancy, it is much longer of disappearing, than when it occurs simply as a sequel to the menstrual discharge, and no pregnancy existing this, however, can be readily explained.
It is well ascertained, now, that all sources of local irritation assist, and further the process of absorption "either directly or indirectly, through the intervention of inflammation" hence why burnt sugar, and local irritants, are employed to advance the absorptive process. Now the so-called false Copora Sutra, which, we have seen, to disappear in a much shorter time than the true, are continually subjected to those exciting causes of inflammation-absorption. The whole structure of the ovary, at every menstrual period, is in a state very analogous to inflammation, which presents a source of the small amount of irritation, well calculated to induce the rapid absorption of the temporary structure. They are frequently also subjected to pressure, from another, while in their vicinity, distending and moving its advance. To maturity. Thus the Copora Sutra, not consistent with pregnancy, it found generally to disappear, towards the end of the second month of its existence.

On the other hand, the Copora Sutra, occurring after a menstrual period, but developed in living
along with pregnancy, are not thus subjected to those sources of local irritation. The function of the ovaries, during the period of uterine gestation, lie as it were dormant, so that these organs are not visited by those periodic inflammatory attacks, and thus do not exert any influence in ejecting the embryo. To more lively action it follows then, that, the true Corpus Luteum are much longer in being obliterated than the false. The period of arrival of their maximum development varies much, but that, as has been pointed out by many physiologists, it may be estimated as about the fifth week or so, they continue of their normal size till about the fourth or fifth month, when they begin gradually to show symptoms of tardy disappearance. After delivery, they are rapidly obliterated. Montgomery asserts, that he has seen them present in the ovary, five months after the termination of the period of uterine gestation, but this must be of very uncommon occurrence. They, however, usually disappear, for one or perhaps two months after delivery. In a sixth month,
abortion case, where the female six weeks after that event, died from an attack of Phlebopneumonia. I examined the ovaries, but could not detect the slightest trace of a Corpus Luteum or any enlargement or prominence of either ovary. In this instance, it must evidently have been deeply absorbed. From these considerations, I should be inclined to think, although I have not, as yet, had an opportunity of taking any myself on the point, that, in all cases of suppression of the menstrual flow, provided the ovaries are not at the time, thrown into a state of inflammation, and continuing for some months, the Corpus Luteum, resulting from the escape of an ovule, at the last menstrual period, is found to have been permanent and of a great consistence and firmness as any so called True Corpus Luteum.

If the theory adduced, as explanation of the mode of formation of the Corpus Luteum, be correct, it follows, as has already been indicated, that its locality is neither external to body,
of the cavity as has been averred by Lee, viz. that it is between them, as has been alleged by Mongomery, Paterson, Thomson, &c. that it is (more or less) in the cavity of the brain, as has been thought by Bar and others, but that it is deposited, and lodged in the proper Graafian cavity internal to both tunicies.

As to the opinion urged by Lee, viz. that it is external to both (membranes), very little need be here said. Careful dissection, or even sometimes mere visual examination, will soon effectually to explode the most unlikely theory. Yet it will be seen, that the membranes of the vesicle are left external, and in close contact with the Caput luminos itself, and again, as has already been noticed, the structure, which he maintains to represent the lining, does not in any way, sustain their character, and is also frequently altogether absent as seen in Sheet 2 figure 1. Besides if Lee's theory held true, the two membranes, during the process...
development of the caput, sutura, would be found impacted between the disappearing clot, and the enlarging yellow body, which is usually near the base, and loosely the same gentleman, D. Lee, seems to profess a wonderful knack of discovering and satisfactorily proving to himself, but not to others, the existence of structures, altogether unknown to, and undiscoverable by, other fellow observers.

From the second opinion, pronounced with regard to its locality by Montgomery Paterson, I entirely differ. That this opinion is incorrect, but that the C. S. is deposited internal to the membranes seems to me to be rendered probable from the following arguments, and considerations, viz:

1st. That the structure, held by those maintaining this opinion, to be the inner membrane is frequently altogether absent.

2nd. That when present, it can be divided into one or two layers, as has been done by Lee, which would be quite impracticable to effect, were it
the true inner lining of the vesicle.

3. That at the very earliest period of development of the Corpus Luteum, at which it (the in white structure) is found, it is very much smaller than the internal layer of the Graafian follicle, so it must be noted, that, the latter at the time of rupture of the vesicle, is enormously diminished, so that, even granting, that, on rupture occurring, it did collapse, it could not be squeezed into so small a bulk as the white structure, looked upon as the inner membrane usually present.

4. That this same white structure, is practically not present, in the centre of the vesicle, during the first stages of formation of the Corpus Luteum.

5. All evidence tends to show that it is merely the disappearing clot, and

6. The inner membrane can often, though in an aphrodisiac condition be discovered, and detected off, from the external surface, of the fully grown Corpus Luteum.

It has been avowed by Baer, and other auth.
of some note, that the Corpus Suturum is more an increased growth of the inner membrane.

I cannot conceive of any reason whatever for maintaining this theory, as any proof that this allegation is at all correct, it seems to render highly improbable, by the circumstances, that in the early stages of formation of the Corpus Suturum, the inner membrane can quite easily be detached from the neighbouring parts.

Mr. Bennett entertains an idea, that, regarding its nature, in which, I think, he almost deserves alone. viz., that the Corpus Suturum is simply a large clot, the result of the escape of blood attendant upon rupture of the vesicle, undergoing the usual process of absorption. The following considerations seem entirely to disprove the possibility of this theory being at least one.

That a clot, never preceded, in any of its tubercle, and subject to such transformations, and changes, the same external appearance, and consistence of the Corpus Suturum.
2. That the remains of a distinct clot are found in the center of the yellow body.

3. That the corpus lutenum increases in size, which, I fear, is near the case with a clot, undergoing absorption.

4. That the color of the blood in different animals is generally the same, the color of the corpus lutenum however differs in different animals. It is as we have seen in variegally yellow, a yellowish red in the cow, red in the sheep, and pig, and yellowish in the human subject. This last argument seems to furnish an insurmountable obstacle to confirmation of Dr. Bennett's theory, and appears to me quite untenable.
Vast importance is attached by some, to the presence, or absence of a Euphrateum. If present, to
the Eternal characters that Euphrateum presents, under the idea that, that occurring after
a menstrual period, and consistent with pregnancy, or following on conception, differs so much
from any other unconnected with co-impregnation as to be easily distinguishable from it, and then
it affects a certain, an unequivocal proof of conception having taken place. The fact of there
being any difference, existing between these two so-called varieties, is one of the highest im-
portance, as a medical legal point of view.

If these really exist characters peculiar to each of these varieties, on which, we are expected to
found an affirmation, whether co-impregnation has
a happened or occurred, they must be broad, well
marked, and constant. In order to avoid the
slightest fallacy with regard to them, so if
these characters should not always be present
and well defined, it must follow, that occasion-
ally, if not invariably, indiscernible
markings or defects will be given, which may
a stigma on the name of one, whose conduct and character may have formerly been inexpressible and unblemished.

"The ability to distinguish a true from a false cropus lactum may prove of the greatest importance to the ends of justice." (Patterson). Certainly, if this was possible, it would be of the highest importance. But reflection alone, or the history of the cropus lactum, which we extend over more than two hundred years, the contradictory and conflicting evidence adduced in law courts, where it seemed of the greatest moment to ascertain, whether or not the cropus lactum belonged to the true or the false variety; the innumerable descriptions of its appearance; and the characters assigned to it by many investigators, being so clarely opposed to the facts enumerated by others; and the presence of structures almost entire, resembling the so-called true cropus lactum, being admitted to all observers to exist, all tend to indicate the utter ab-

sense.
of attempting to establish any fixed distinctive
marks, between these varieties, if varieties do
exist. It is however, infinitely more likely, that
there are not two varieties, but only one, which
occurs, and is found in the ovary, after fertil-
ization of a vessel, whether or not impregnation has
occurred. If fertilizing along with pregnancy, let
it be designated true, and if not in constant
contact with it, let it be called false. It matters little
but it is, however certain, that impregnation
excludes all influence whatever, in sterilizing the
ovum. Corpus luteum, that no distinction can be
made between those occurring on conception. Taking
place, there quite unconnected with impregnation, they
are in reality the same bodies, and afford
no ground, on which, we could base an objection,
as to whether, or not, the female had been
impregnated, and that therefore they are of no
value as a sign of conception.

Were it the case, as was once supposed, that
the ovum, underwent impregnation, while
within the Graafian vesicle, then this might
be.
some reason for maintaining, that the act of exception did exercise an influence, on the formation, and character of the Corpus Satrum; but we now know, that (modern) research has completely exploded this old instruction theory. It has shown, that the prophesies attending the expulsion of an army are exactly of the same character, whether new or old; its occurrence be followed by exception, so that there seem to be no grounds for supposing that the two varieties differ from one another in their origin.

Sir Montgomery, the value of whose treatise on the subject, it would be difficult to over-estimate, and who is justly considered one of our best, and most reliable authorities on the subject, furnishes all the points, e. e. may seem to him to differ, and on which a distinction is to be carried out between the true and false Corpora Vetae. They are the following.
1. That in the "false" there is very little or no prominence of the ovary over them" now it seems to me that this is a foreboding to the case. Of upwards of a hundred ovaries which I examined in the different lower animals, and a few of the human subject (Montgomery's remark should apply with more truth to the former, because the Corpora lutea in them are invariably of a larger size, in proportion to the ovary, than the latter) this character of protrusion seemed to occur equally in both, there seemed no distinction as regards prominence, but a universal similarity prevailed in both. In the false, the protrusion is often scarcely visible, but the same remark applies equally to the true.

2. That the protrusion in the true gives a much more solid, and persistent, feel to the finger, than that of menstruation, which, he says, is soft and yielding. I have never been able to convince myself of this difference, between them. The Corpora lutea, varies in its degree of consistency, for the cure have been that.
...at first a fluid, then gradually acquires a soft consistence, and at last for some time after the period of its full development, it imparts a firm, and persistent feel to the Touch, so that, supposing Montgomery to be correct, which is more unlikely, yet I should have no means of distinction at an early period, since both varieties are at that time soft and more a left fluid.

That in the false, "the ovarian &c. is frequently altogether absent" but neither does this from any one ground of distinction. Montgomery himself remarks "that when the cavity takes of that of a recent menstruation, they &c. may be present, and even well marked." and in "the point of his paper he admits that "the effects of inflammation at the bursting of small abscesses in the ovary, or more commonly, the rupture of Graafian vesicles at the times of menstruation, may produce such, which cannot be distinguished from those caused by the case of an impregnated ovum." Montgomery states..."
with regard to the absence of ovaries in the male, apply equally to those in the
female. In the latter case, they are sometimes
very distinct, at other times scarcely discern-
able, or apparently altogether absent. The
presence or absence of the ovary, over the
supposed ovariun, seems to depend entirely,
on whether or not they have been obliterated,
and if so, at what time, this obliteration
may have taken place, for it may go on
rapidly, during the development of the egg
as ovary itself, and disappear long be-
fore the latter. These ovaries are not as
a rule permanent. Montgomery used to
exhibit to his students, the ovaries of a wo-
man who had borne seven children, and
yet no appearance of a ovary existed, it
itself on either ovary. They had all evident-
ly undergone obliteration. From what the
author referred to, allows himself to be
a ovary simulating in all its character,
that found after conception, may be pres-
sent under conditions altogether different,
been referred to. L. Montgomery says, they never present the rich buffy shade of the tree. Well, if he means by that, the gorgeous hues, and display of colours represented in the
his figures, then it is certainly the case, that
the false fall far behind the true in respect of colour. I have, did see Espera latifolium at
all resembling the specimen, he has figured, at the commencement of his Volume.
For instance, there is one feature, represented in
his first figure, which had never been described
by any author, and must be of exceeding
importance. Is it a Cupus latum removed
from the ovary, and its margin seems to be
formed by a row of huge round nucleiated celldesceeding in size any, I ever knew to
and it must be remembered that it is not a
microscopic view, of the structure which he has
drawn.

That in some instances, the false are merely
depositions of soot, clouds or tubercular matter, as if even, microscopical deposit of such a
nature, were to be looked upon as a Cupus.
must be remembered, that "every yellow substance in the womb is not aurus' system" that the false vapor away more rapidly than the true. Now, this is the only feature in which they may be said to differ. It has been sufficiently dwelt upon already. But it may be here remarked that it is really of no value in leading us to a decision as to whether, or not impregnation has taken place, because it could only become applicable, as a sign of conception, after two or even three months had elapsed, from the date of impregnation, or not until the false had had time to be absorbed, and if course be that period, we are furnished with far more certain, and unequivocal proofs from other sources.

That the false are formed within the cavity of the vesicle, the free between its membranes. According to the view already given with regard to its situation, it is apparent that both varieties are formed, lodged in the proper cavity internal to both membrane,
the reasons for maintaining this opinion have already been adduced. It may also be advanced as an argument in favour of the same view, that in Montgomery's so-called false Corpus Sutera (as sheets 4 & 5) proceed exactly the same white structure, which he holds to be the internal membrane, in this centre. This fact, when carefully considered, seems to afford sufficient ground of itself, for entirely repudiating his opinion as to there being a difference in locality between the two varieties. That the false do not present the central cavity, or stellate white line. But these statements are quite as applicable to the true; and even Dr. Paterson, whose views on the whole subject seem to coincide entirely with those of Montgomery, remarks, when speaking of the true Corp. Sut. "occasionally, no central cavity exists from the very first." Dr. Paterson is quite correct. Both characters may be present or absent, or present in a greater or less degree. For instance in sheet figure 1 is a true Corp. Sutera proceeding a
distinct cavity, such as Montgomery described
that if fig. 1 is also a true one but does not pre-
vent the slightest trace of cavity or stellate
structure. So that fig. 5 is a false one yet the
stellate structure happens to be very well mark-
in fig. 4 which is also false it is altogether
wanting. All the Corp. Lateta on sheet ii are
of the so called true variety.

That in the false the form is irregular, trape-
zoidal or square, as if some figure bounded by
straight lines; as but again, it may be
said, that this is equally liable to occur
in the true especially does it seem to happen,
when it has been subjected to pressure, as in
sheet ii, figure 3 represents two Corpores Lateta,
which have been developed so close to one another
as to suffer considerable pressure by which the
adjacent margins have become almost sharp.
Which, Montgomery says, never takes place in
the true. the same has occurred in fig 4.
In both, the partition between them seems
to have undergone almost total absorption,
having only the slightest traces of their former
walls.
indicating their former separate existence.
We have already seen that no microscopic difference exists between the two

From these considerations, it may be established, that a Corpus Luteum may exist with or without conception having taken place. That the characters assigned as peculiar to, and possessed only by those supervening on conception, are present in a form, quite as well marked, and defined, by those wholly independent of pregnancy, and totally unconnected with impregnation, occurring in the virgin state. So that therefore, the conclusion may be justly arrived at, viz., that the presence of a Corpus Luteum does not indicate the existence of pregnancy, and is of no value what

Ever as a sign of conception.

Achibald Jamison
Cut away of a cow, head above, containing a Fine Lobe.
Lumen. The last bone of the chest that are visible. No central cavity existed.
my each strange not been described