CAUSES OF TREATMENT

of

STERILITY.

A THESIS

by

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The term sterility is generally applied to the condition in which an individual is deprived of the power of reproducing itself; in which it is unable from malformation, organic disease, or from some functional derangement, either to commence, or when once begun, to carry on that complicated series of operations, destined for the continuance of its species.

The faculty of reproduction may be either totally and irremediably wanting, or it may be in a state of abeyance, requiring some stimulus.
either general or local, or some other remedial measures, to awaken from their state of torpor, and call into action one or more of those organs provided by nature for the performance of this function.

There is an astonishing degree of difference between women as regards their aptitude for conceiving, some being susceptible of a very slight degree of fertilizing influence, becoming mothers almost every year; this propensity to become pregnant may exist, if I may be allowed the expression, to a morbid degree, as such a frequent state of gestation proves prejudicial to the health, as well of the mother as of the fetus in utero of the child at
The account. Aquenucus believed that a relation of his own had conceived by going into a bath, in which there happened to be some of the seminal fluid of a man, who had previously been in the bath! Hieronymus Mercurialis, in his work on diseases of women, ridicules this idea, on the authority of Aristotle, who condemns Hieroclesius for believing that impregnation takes place by the mouth, because if this were the case, the semen would be so much altered, as to be rendered unfit for the purposes of generation. How much more then, says Mercurialis, would the semen in the case alluded to by Aquenucus, have been altered by contact with water and then
deprived of its fertilizing properties. However improbable this story may be, that it is not impossible, seems to have been shown by the experiments of P. Albani and others, who have proved that these arguments of Mercurialis were groundless, by causing animals to be artificially impregnated by injecting a small quantity of semen, mixed with a considerable proportion of water, into the genital canal; and also by the late investigations about the artificial propagation of fish. If this experiment were alluded to by Anemues the True, it seems to what an extreme degree this likelihood to become pregnant exists in some women, whereas others, although
They are not altogether sterile, only conceivable once or twice during a long continuance of married life, extending frequently over a lengthened series of years—An apt comparison has sometimes been drawn between abortion and conception in this respect, as sometimes the proclivity to abort is so excessive, that the ovum is cast off on the application of every trifling accidental exciting cause—even in many instances from the operation of some circumstance so minute, as to elude the most careful search for it; and even in spite of all that can be done to prevent or guard against its occurrence, whereas on the other hand
The ovum is sometimes retained with astonishing pertinacity by some women, and resists every endeavour on our part, to produce its expulsion. The woman having run the gauntlet of all the various modes, mechanical, as well as medical, which have been proposed for the induction of premature labour, without the desired effect being produced.

It is maintained by some, that some women are more susceptible of the fertilizing influence of the seminal secretion of one man, than of another. I am not aware on what principle this could be explained; and if no defect existed in the seminal fluid of the first-
man, I should rather be inclined to suspect that some change had taken place in the constitution of the female, in the interval existing between the death of the first husband and the marriage with the second; than that of the two specimens of the seminal fluid (which were equally endowed with fertilizing power), one should be able to act on any individual ovule, on which the other would not produce its specific animifying effect: Perhaps this fact may be attempted to be explained by some, on the principle of homogeneity of temperament; so keenly contended for by that somewhat enthusiastic philosopher
Bernardin de Saint-Pierre who in his work entitled Étude de la nature, has advanced some curious speculations on this subject. He attempts to show that a blonde may be expected to prove more prolific when united to a husband of a dark complexion, and a bruneette to one of a light dish than when they are connected to a husband of a similar temperament with themselves. St-Pierre declared he could sketch a tolerably near likeness of the object of one's conjugal affections by carefully observing the "air temperament" of the lover.

As the uterus is the organ
provided by nature to receive the ovum, and to retain and support it, while it undergoes those changes which are necessary towards its being able to support an independent existence, it may be convenient to consider it the point whether the spermatogoniaids contained in the spermatic secretion of the male are directed, as well as the ovules, which after being matured in the ovary pass along the fallopian tube into this organ.

The conditions absolutely requisite for conception are

I. A healthy state of the ovules and spermatogoniaids

II. A patent state of the generative
Canals throughout their entire extent, to allow of the free ingress and egress of the reproductive elements.

III. That the secretions of the mucous membranes lining the whole tract of this tube, be in such a normal condition, that at least it shall not prove injurious to the vitality of either the elements produced by the male or female, towards the formation of the embryos, and that they shall not be in such excessive quantity, as shall occasion the expulsion of the elements before they have come in contact, or till certain changes shall have been produced, by which they become fixed to the uterine
That the uterus shall be in a condition to retain, and afford attachment to the impregnated ovule.

I propose to consider first the various states of sterility dependent on physical causes — second that which is produced by functional derangements of the generative organs; and lastly the constitutional causes of sterility.

Those cases in which the vagina alone is at fault, are frequently remediable by surgical interference. The vagina may be wanting, or developed only in an elementary condition, its orifice may be imperforate, or have only a very minute
opening in many instances scarcely large enough to admit a crow quill, or it may end in a cul de sac, at its uterine extremity; its walls may be occupied by tumours by which its cavity is more or less filled up and finally there may be unusual communications between it and the rectum or bladder.

Cases of entire absence of the vagina are not very numerous, they are generally connected with the absence also of the uterus, several such cases are recorded by Morgagni, in one of which an eminent surgeon recommended the dilatation of an orifice for a long series of years, which Morgagni at length found
To be that of the urethra, and expresses himself thus quaintly: "When I saw the foramen of which the woman had spoken, I immediately knew that it was the orifice of the urethra, out of its situation; if that thanks ought to be given to God, that the woman could not suffer any farther dilatation of that passage; as if she had, the consequence without doubt, would have been, that she could never have retained her urine." Alexander's Morgagni. Let. 4, Art. 17.

In those cases which have been put on record of congenital deficiency of the uterus, in which the vagina was present, it generally
ended in a cul-de-sac, and seldom exceeded an inch and a half in length. In some cases in which the other organs of generation are properly formed, the vagina although not entirely wanting, may be of very small dimensions; as in a case quoted by Dr Denman, in which it was only one and a half inches in length and half an inch in diameter. In this case when the inflammatory action produced by previous rough usage, had been removed by the usual remedial measures, Denman was enabled to increase the size of as if by the introduction of tents, used gradually larger and a
short time afterwards the wife fell in the family way, and was delivered in due time without any extraordinary difficulty. Even when the vagina has been of surprisingly minute proportions, impregnation has sometimes taken place without surgical interference, as in a remarkable case related by M. de la Toison in l'Histoire de l'Acad. Royale des Sciences 1748 p. 48 which occurred in a lady resident at Brest "who had a vagina so narrow that it would hardly admit the barrel of a goose quill" but nevertheless became pregnant - and at the full time of gestation was delivered of a strong child after
only a three hours labour. In other cases of a similar nature, the development has taken place more gradually and has gone on during the latter months of pregnancy.

In the celebrated Joan of Arc, The Maid of Orleans, the vagina is said to have been contracted to an extreme degree and if as is highly probable the labium was entirely absent or existed only in a rudimentary condition, her warlike propensities might be satisfactorily explained.

When the hymen is either imperfect or pierced with one or more small holes, in some instances presenting somewhat of a Cribriform
appearance, it may be laid open by a crucial incision.

The edges of the lower part of the vagina or of the vulva not unfrequently adhere together from a neglect of those invaginations which are of frequent occurrence on these parts during infancy, and among some of the eastern nations these adhesions are artificially produced. Merriman in his work on difficult parturition describes a case in which the labia cohered to such a great extent that there was not the smallest aperture for the escape of urine - when such is the state of parts they may be separated by a careful dissection.
and prevented from recurring by the interposition of a piece of oiled lint or other such substance.

For congenital want of the canal I am not aware that any surgical interference can be of avail - The treatment of a transverse band or septum, above the orifice is the same as for persistent hymen - General Cases are re: corded by Anal in which a longitudinal septum existed in the vagina, in those instances in which the uterine was divided into two chambers, in such cases the membrane may be removed by the cautious use of a pair of scissors.
The vagina in general instances has can generally communicated with the rectum on the one hand, and with the bladder on the other, and a similar state of matters is not altogether unknown as a consequence of parturition, but as such a condition does not always prove hostile to conception, it scarcely comes within the limits of our subject.

The cavity of the vagina may be occupied with tumours extending into it from the uterus and even though comparatively seldom growing from its own pannicules; a case of the latter description is mentioned by Davies.
in which the extent of connection with the vagina amounted to three inches, and the length of the tumour was between ten and eleven inches. Such a tumour would in all probability prove a cause of sterility, but in many instances it might be removed, as in the case alluded to above, in which it was effected without the loss of more than half an ounce of blood.

The orifice of the vagina being rigid to a greater degree frequently proves a cause of barrenness; this rigidity may be very slight, requiring very simple steps to be taken for its removal.
as in a case recorded by Mr. Greyman. The advice that the wife should sit over the steam of hot water, that she should apply some unctuous application externally to herself, and that her mother should explain to her, that the contrary to resistance should be offered to connection, proves quite effectual—In other cases the rigidity is very great, requiring firm pressure causing excessive pain, to introduce even a finger: in such cases the introduction of lancet gradually increased in size, with the free use of oleaginous matter used as a pessary.
will generally bring the parts to the desired state of relaxation. There are on record several cases in which the uterus was entirely absent and of course in such cases it would have been impossible for the woman to have had any children. During life we may have a pretty strong suspicion that this is the case from making a careful examination of the vagina and external organs, which in such instances have always been found to be imperfectly developed—by other proofs of the imperfect organisation of the sexual system—smallness of
The Mammary, which in such instances scarcely exceed a finger's breadth, are organs in the male, and in other respects they come more nearly to the other sex as in the tone of the voice which is generally coarse and unmusical. The shoulders and chest are broader whereas the gluteal regions are not so prominent as is usual in the female sex. The whole build more resembles that of the male than of the female. The sides of the face and chin being covered with hair which however is scarcely so plentiful or so strong as in the adult male. The character
and Pursuits of The Woman are more or less Masculine Constituting in fact what is called a Vinggo- and The Reproductive Passions and consequent love for the other sex are entirely wanting.

The uterus although present may be of extremely small dimensions and produce the same physical & moral alterations in the female as its complete absence. The size of the uterus may be determined by the use of a sound. This diminutive condition of the uterus may be congenital or it may be the result of a kind of atrophy
occasional by the involutions of this organ, which takes place after delivery, not stopping when the uterus has attained its former dimensions, but continuing to decrease in size till it becomes almost rudimentary; the ovaries also become atrophied and a state of amenorrhea and sterility is the result. Fortunately, this state of matters although it is not a dangerous condition, yet as in many instances it would prove fatal to the prospect of happiness of our patient, although at first sight might be regarded as insurmountable is within the control of our art.
for taking advantage of the law by which the uterus has a tendency to hypertrophy and its walls to again substance whenever any foreign body is contained in its cavity, we can place a of advance passary within the as uteri, which shortly stimulates the uterus to take an increased nutritive action, and develop itself around the metal, till it is restored to its natural condition. The catamenerial function is renewed and the patient placed in a favourable state for conception.

Prolapsus uteri although not a constant cause of sterility, may from the obstruction it offers
to the proper performance of the sexual act, or perhaps more on account of the limitation to which the parts are subjected owing to this malposition, does sometimes prevent fecundation. The slighter forms of prolapse, which consist in a very partial descent of the cervix, render little opposition to impregnation; when compared to the complete falling down of the uterine between the thighs (covered of course by the vagina), even the extreme prolapse which sometimes occurs does not always prevent conception, as pregnancy has supervenied although the orifice of the womb has been
fixed outside the vulva for years. An attempt may be made to remedy this displacement by lignifying the recumbent posture. The meaning of some kind of truss or pessary, the latter of course, as the object is to prevent impregnation. Must be of the requisite or if from peculiar circumstances, any of the other kinds are preferred they must be removed previous to Cactus; an Indian rubber bag introduced empty into the vagina and then dilated to a sufficient size, by the insufflation of airtone and astringent injections may be used in some cases with advantage - as also vaginal.
Suppositories, containing sedative and astringent matters will also be found useful.

Impediments to conception may exist at various points, uterine orifice. The patient may have a membrane closing the os externum similar to that which is observed at the orifice of the vagina or higher up in that canal. The canal of the cervix may be contracted throughout its entire extent, and upon looking through the speculum, it will be found without the usual depression in the centre—its orifice being perfectly smooth and the only indication of its presence being the vascular area surrounding its position; or the contraction may


have its seat in the internal os while the external os retains its usual degree of dilatation; and all or any of these points may be obstructed from inflammation, ulceration or mechanical injury of the opposed surfaces having caused abrasions of the lining membrane, which on healing have coalesced thereby causing partial or complete obliteration of the canal of the cervix.

The orifice may be very much contracted by the cicatrizes produced by the healing up of lacerations occasioned by violence, sustained during labour either from instrumental, manual assistance or in some instances from the effects of powerful uterine
Contractions, on a rigid long-standing or. Sometimes in persons who remain long unmarried. The as when has been observed to have degenerated into a mere fistulous orifice, scarcely allowing of the introduction of a twistle. These states of the as may be easily recognised by digital examination, the use of the speculum of the uterine sound: and in many instances free dilatation may be produced by the use of bongies gradually increased in size: in cases where complete closure of the os or obliteration of the canal of the cervix exists, the use of these must be preceded by an incision of a histommy or of the hysterotome.
or the plunged of a truechar, which in such cases is rendered more easy by the cavity of the uterus being generally distended with menstrual blood, or other fluid secretion. The canal although patent may be rendered impervious by the congestion of its parietes: Aniceanna seems to have been aware of this cause of sterility; as he says, there are some women in whom owing to some idiosyncrasy the uterus easily swells up, on account of which the os is firmly closed and so renders the uterus unfit for conception — a similar result may be occasioned by growing tumours from the uterus and extending through its orifice — the mucous membrane may become
hypertrophied, or the glandulae Nabothi may cause an impetuous state of the canal.

The cervix uteri is sometimes elongated to a great extent, so that in some instances, one or both labia project externally. Such a state of matters is most unfavourable to conception as the seminal fluid is injected past the cervix, into the Cul de sac, formed between the external surface of the cervix, and the lining membrane of the vagina: such a case may be easily remedied by amputating one or both of the hypertrophied labia by the stroke of a bistoury or the snip of a strong pair of scissors.
Considerable importance has been attached by some authors, especially on the Continent, to the ablique position of the uterus as a frequent cause of hæmorrhæs.

It may be ablique in relation to the uterus itself, or although its direction as regards the uterus is perfectly normal, its relation to the axis of the vagina, may be altered by the uterus being displaced either backwards, forwards, or to either side, so that its cervical extremity being carried in the opposite direction, the axis may be applied to the wall of the vagina - and any part of the vaginal portion of the cervical portion of the cervix may
occupy the orifice of the urethra, and thereby greatly render the free admission of the spermatozoa to the cavity of the uterus—perhaps the various positions during coitus, recommended by the older authors, as to bring the os uteri as nearly as possible into its normal position might be recommended, or if in spite of these means the sterility remains. An extension of these means which John Hunter successfully recommended to one of his patients, might be tried with prospect of success. In the faith of Spallanzani's experiments Hunter recommended in a case of imperfect erection of the urethra, that the seminal fluid should be collected
in a syringe and injected into the vagina. In cases in which the position of the os uteri is at fault, might not the noose of the syringe be turned up even within the os?

Sometimes a plug of hardened mucus will be found occupying the cavity of the cervix and preventing the use of the uterine sound for its removal.

Disease of the fallopian tubes forms a frequent and very often inexcusable cause of barrenness.

These tubes as well as the other internal generative organs may be congenitally deficient or imperfect, either in having, one or other of their orifices closed or their cavity obliterated.
They are likewise subject to the various diseases to which the uterine cavities are liable, and often, in fact generally, are affected simul-
taneously with them, and even when they alone, are the seat of disease, owing to their proximity to these neighbouring organs, we can scarcely say that during life we are able to separate the diseases of the Fallopian tubes from the diseases of the other pelvic organs, at least in the vast majority of instances.

The mucous membrane of these tubes may secrete a mucopurulent matter, which when discharged into the uterine may
decline. The practitioner into the belief that the uterus is the seat of the discharge. (Boisin.)

Sometimes the flaccidiated extremity of the fallopian tube has been observed to become adherent, to some of the contiguous parietes, as to the ovary and of course if both of the tubes are simultaneously affected the fluid offers an insurmountable barrier to Conception. These monial adhesions take place as a consequence of inflammation, they often chronic, and are said to be frequently found in dissections of the bodies of prostitutes: probably the inflammation in these cases
Might have been caused by an afflux of blood, being determined to these organs tubes by the constant state of excitement that these organs are kept in in this unfortunate class.

The cavity of the fallopian tubes may become closed up at any point, as a consequence of inflammation or the passage may be obstructed by deposit of tubercle, or other solid matter and a similar result may be the consequence of the various forms of tubular dropsy, and as a sequela of acute inflammation may be contained in their cavity.
The extremities of these tubes may be congenitally closed; this takes place most frequently at the fimbriated extremity, which is sometimes seen to end in a cul-de-sac instead of fimbriae; and at the uterine extremities they are sometimes observed to be covered over by the lining membrane of the uterine which passes continuously over their amputees.

There is a state of the fallopian tubes, described by Tyler Smith, in which they are structurally healthy and no impediment exists to the performance of their function, but the fact of their uterine extremities being...
occupied by a thick tenacious mucus which prevents both the passage of spermatagonia up to the ovary or of the ovum to the uterine. "A plug of hardened mucus of the most insignificant character - the merest debris of the fallopian secretion - may cut off an illustrious race or change a destiny." Tyler Smith, Lancet, 1849.

In such cases he recommends that the mechanical obstacle should be got over by passing an instrument along the fallopian tube, so as to remove the obstructing mucus; in a similar manner to that employed by the aural surgeon to clear out the eustachian tube. The instrument recommended for this purpose consists of
A metallic fallopian (?) catheter with a curve to adapt it to the various axes of the uterus and vagina, and another one which points when the instrument is in situ, to the fallopian tube, in this catheter is contained a bougie made of whale bone or cat gut coated with gum elastic, which can be made to protrude at will with the assistance of a speculum. This instrument is passed up to the fundus uteri, with its orifice directed to the fallopian tube, and through it the bougie is passed for about an inch and a half into the fallopian tube. Dr. Smith says that the first case on which he tried the operation was perfectly successful—that he
was surprised, at the ease with which he passed the instrument, and that its introduction did not produce any pain or uneasiness whatever, and that the only difficulty experienced was in getting the catheter through the constricted portion of the cervix. Even if this operation were practicable, which "credat Judaeus Appella non ego," Dr. Smith has not pointed out, by what means we are to recognize such a morbid state; and I apprehend that considering the difficulties and dangers connected with it, there are few surgeons who would think themselves justified in attempting such a rash procedure
Upon the mere chance of finding such a condition present.

Seeing the ovaries supply what the female furnishes for the production of the new being, it necessarily follows that whenever these important organs are prevented from discharging their office, that the woman must be incapacitated for performing her part in the operations requisite for the perpetuation of the species.

When the ovaries are absent or imperfect in their development, the female is denuded of both the moral and physical attributes of her sex, and of course in such a case it would be useless to try
Any remedial measures—and indeed I question if under such circumstances we may ever be asked to remedy the want, as the humph (? of philo-
progenitiveness would not be at all developed. Congestion of the ovaries takes place at every menstrual
movemen, and when this is excessive or prolonged, it may hinder the proper development of the ovum, and may thus prove a cause of sterility, or it may act in like
Manner by thickening the membrane of the resile, so as not to allow of its bursting. This state of
matters may be remedied by the application of leeches, blisters or other forms of counter irritation as by,
iodine or its compounds with lead, mercury, &c. saline purgatives &c. Moderately Antiphlogistic Regimen.

Kohlenbshalt in an inaugural dissertation states that the ovaries may be surrounded by such a hard or fleshy cortical portion, or Callous Membrane that the ovum is unable to receive the seminal ovum through it, or at least to penetrate it, as has been rendered fertile. -- De sterilitate foeminarum

Thoughpurg. 1790. In France defect. opus Med. how such a condition could be diagnosed during life or if recognized how it ought to be treated. I am unable to say. And I can say as little about the opinion held by Herfeldius in his cogit. de orig. Morborum & 13 apud. Schwirg Epilepsiae.
That the ovary can render a woman unfit for procreation, by becoming too fat or too dense and tenacious.

The displacements of the ovary may in some instances be a cause of sterility by preventing the frigidated extremity of the fallopian tube from embracing the ovary. This caused only the an inefficient cause, when either both ovaries were displaced, or the one displaced and the other prevented from performing its function by some other cause. When the ovarium becomes congested and enlarged or distended by water or hydatids, it has a natural tendency to gravitate downward, sometimes causing
The uterus is descending passing between that organ and the bladder; but much more frequently between that organ and the rectum - at the commencement of ovarian disease. This displacement might occasion sterility, but as the disease advances and the ovary becomes enlarged, as again to resume its place as an abdominal organ, similarly to the pregnant uterus, the cause of the displacement (ovarian disease) is dependent on the displacement itself would form a barrier to conception: But barrenness may be produced when the healthy ovum becomes prolapsed through any of the inguinal openings.
The umbilical ring - or cicatricial notch, cranial arch - or forming an opening for itself through any part of the abdominal wall - of course the fallopian tube were to become displaced along with the appendix. The spermatocele would not be so likely to result. Ovarian hemia may be distinguished from other affections by the patient, upon making any movement, expressing a sense of dragging in the lumbar and hypogastric region in the ovarian protrusion; whereas in that of the intestines or omentum, the region of the stomach is the part complained of as the seat of the dragging sensation.
and Hernorrhagia and calci-pains are felt, which are wanting in hernia of the ovary. If this hernia be congenital it will in most instances be found impossible to reduce it: and if it becomes strangulated, an operation may become necessary; this may be performed either by enlarging the ring, and returning the protruded viscera, or if this be found impracticable, these organs may be removed with comparative safety, but of course leaving the patient in a state of hopeless and incurable sterility.
Chronic inflammation of the ovary is the same way as congestion may tend to prevent the perfection of the ovum from taking place; and in fact in the words of Dr. Davis, "the ovaries are subject to several important diseases of which there are probably few, if any, which one may not presume to be competent, either to impair or else absolutely to destroy their progenitive attributes. The most frequent variety of ovarian disease which one may suppose calculated to produce this effect, is that of an absolutely morbid enlargement of the vesicular lymphæmæ, accompanied by a visibly degenerated structural condition of their varieties; such probably is the most frequent cause of sterility."
in most young women apparently possessing, it continuing for many years to possess, a very fair share of goodness.

We now come to consider some of those local causes of sterility which from their conditions being more changeable and remediable, do not act with the certainty of causes subject to once once their effects by the general physical laws.

Of all the causes comprehended under this head by far the most frequent, as well as the most influential are those conditions of the body which are caused, or perhaps ought more properly to say, demonstrated to be present, by the non-appearance suppression or other alteration of the catamenia. There are it is true examples of
women having become mothers, before
the menes had been established, and
some after they had ceased; but these
constitute so small a proportion to
the vast majority of cases, in which
impregnation has not taken place
till that function was duly performed
that one may consider a person in
whom this function is absent, to be
disqualified for the highest privileges
of commercial life.

This connection between the cata-
omenial secretion and conception has
been recognised from very early times
but more attention has been paid
to it of late. Since the modern
theory of menstruation—which
makes it depend on the discharge
at once from the ovaries, owing to the periodic excitement of which these organs are the site, and considers the fluid secreted by the uterine, as a secondary phenomenon and only an indication of the more important operations going on in the ovary—has become generally adopted. If this theory be true, which we have every reason to believe it is, we might expect that the most favourable time for conception would be that at which the ovum left the ovary; and accordingly this has been found to be the case, as in many instances in which a woman who has been childless for many years,
has at last attained the object of her desires, by due attention to the rules laid down by Naegelé, Puseilovsky, and others - who believe that conception generally takes place immediately after the menses have ceased to flow. That there is very little chance of impregnation taking place between the menstrual periods.

When this periodic congestion does not take place, and the patient is in a state of amenorrhea, we must attempt to get the menstrual function established by any of the usual means, such as electroc purgatives, Chalybeate tonics, electricity, mechanical vibration of the abdomen by means of a sound, or by the use of any of...
The so-called uterine goyge medicines. The opposite state of the uterine system, namely, that characterized by an excessive secretion of the menses, is also hostile to conception, because the ovum is washed out of the uterus before it has been acted on by the spermatic fluid or from the debilitative effect produced on the uterus, that organ is unable to undergo the requisite changes for the fixing of the ovum to its walls. The curious indication to be fulfilled in sterility pronounced by excessive flow of the menses, is to try and get the flow reduced to its normal quantity, by depleting measures when plethora is the arigo Mali;
and when a lax and debilitated state of the general or uterine system is the cause, a tonic and sedative system must be pursued with abstinence from all causes likely to produce an exciting effect on the sexual organs: for such reasons a temporary separation from the husband is of essential service.

When performance of the menstrual function is accompanied with pain, we find that the aptitude for conception is generally at a low ebb—especially in those forms of dysmenorrhoea in which the periodical irritation, which accompanies the maturation and discharge of cœcum from the ovary, is so intense, as to excite
The uterus to such an excessive degree that it secretes an exudation which assumes a membranous form: and when the pain is caused by a constricted state of the os uteri, preventing a free discharge of the fluid as it is secreted, of course this obstructive dysmenorrhea may be caused, although the os is only relatively, small to the quantity of secretion which must be allowed to escape; the enlargement of the os uteri by bougies or dilators, or by the operation recommended by Dr. Simpson, is at once the cure of the dysmenorrhea and for the sterility. Lond. Med. Journal 1847. p 876
The state of the uterus described by Dr. Guthrie as "A painful and tender state of this organ, neither attended by, nor tending to produce a change in its structure" and called by him "irritable uterus" is said by Dr. Churchill to offer an insuperable impediment to conception. It is so liable to relapse, and difficult of cure, that although the ordinary antiseptic and antiseptic measures may be tried, we may in many instances be forced in removing the sterility, although the pain and limitation may have been allayed.

Chronic inflammation of the uterus or of its lining membrane.
endometritis—though not uncommon—
care for conception as the 'irritable
uterus, as it does not necessarily
produce barrenness, but is a very
frequent cause of abortion—is also
more amenable to treatment—slightly
anti-phlogistic regimen, cupping of
the loins, counter-irritation over
the omentum, and as local contusion
is a very frequent cause, the ac-
cupation of a separate head, will
generally prove sufficient, to
remove the inflammation & consequent
leucorrhcea, yet owing to organic
changes having taken place in the
surface of the uterus, such as
the formation of a false membrane,
or the adhesions of the fallopian
tubers by the production of an allemeanous exudation. The sterility may continue for long after the symptomatic discharge has ceased.

A more favourable event may be hoped for when the lesion depends on a local relaxation of the vessels on the interior of the uterus or cervix as in such instances the use of internal astringent in common use as gallic acid, brome and topical remedies calculated to produce a similar effect, will be attended with the happiest result.

The mucus secretion poured out by the uterus, may be of a vitiated character, and destroy
The spermatozoa, before they can come in contact with the ovule, M. Darné in his work entitled "Cours de microscopie" has shown that the spermatozoa may live and move about actively for some days, in mucus collected from a healthy vagina or uterus. The mucus secreted by the vagina during health has an acid reaction; whereas that of the uterus is slightly alkaline, and as these two are continually neutralising one another, the united product of both is very nearly neutral; or as the acid component is generally eliminated in the greatest proportion, it is slightly acid: during a state of congestion, irritation, or inflammation,
The mucous secreted by the vagina becomes more highly acid, and in this state it is inimical to the existence of the spermatozoa; but a similar effect may be produced, without the mucous as it is poured out from the walls of the vagina, having a higher degree of acidity - namely, either by the uterine mucous becoming deficient in quantity, or ceasing to be secreted at all, or becoming possessed of acid properties, thereby not only not tending to counteract the injurious effect apt to be produced by a too acid vaginal mucous, but even assisting in producing that effect. M. Donné states that the mucous secreted by
The uterus, in some diseased states of that organ, acts so powerfully on the spermatie animalcula, that they perish the instant they come in contact with it, and immediately are completely deprived of the power of movement, he attributes this deleterious action to the excess of the alkali, which he has found present in the uterine mucus in such instances.

Such a pernicious state of the secretion may be remedied by the prolonged use of tonics and such medicines, as are found to produce a powerfully modifying effect on the secretions of the body in general, such as sea bathing
Change of air, and the use of any of the favourite mineral waters. Among many other prescriptions which Dr. Homærians used for the cure of sterility, he mentions one composed principally of soda, which in his opinion was at once the safest and the best on what principle could this have acted, if it was possessed of any beneficial operation at all, but by counteracting a too highly acid state of the vaginal secretion? The secretion of the fallopian tube is said by some to be capable of undergoing an alteration which renders it liable to destroy the ovule in its passage to the uterus, and makes it unfit to be acted.
an eye. The seminal fluid of the male—I am unaware of the nature of this morbid change, or of any treatment likely to influence the sterility produced by this cause, unless it be some of those general alternative means alluded to above.

When all the functions of the body are in a state of health, and their functions properly performed, we may consider that a woman is in the most favourable state for conceiving, and when one or more of them are diseased, either functionally or physically, the reverse condition holds good. Irritations and diseases of the bladder, rectum, especially, are apt to act injuriously in hindering conception.
Therefore when a case of sterility presents itself for treatment, one of the indications is to endeavour to rectify any such deviations from health.

Hippocrates in his aphorisms says "Such women as are inmoderate fat do not prove with child, in them it is because the ephiploon (fat) blocks up the mouth of the womb, and until it be reduced they do not conceive." Syd. Soc. Ed. p. 146.

What The Father of Medicine means by this passage I cannot exactly say; but as most physicians since this day seem to have traced some connection between sterility and obesity, and have given directions
to cure the one by removing the other, I suppose they must have some close relation to each other.

but I should rather think that the surplus fat is the result of the barrenness, than that the inability to procure milk is caused by the superabundance of adipose tissue, as we have an analogous result produced by Castration, or the removal of the anovaries - both in the human subject, & in thousands of instances in the lower animals.

Seeing it is an almost universal practice to castrate pigs, oxen, fowls, &c. for the purpose of making them arrive more quickly of that condition which is most...
highly prized for astronomical purposes. It is true that in certain
weakly states of the Constitution -
marked by a lax flabby state of
the integuments, the uterus seems
to participate in the general anatomy,
the May render a person more
fruitful by the administration of
tonics, alteratives, &c. Calculated to
give tonicity to the system; but in
the majority, if instances of inordinate
abeyance accompanied by sterility, the
anovaries will be found sluggish,
affected with disease, or perhaps
even absent altogether.

Pausanius, speaking of
the cure of sterility, says, that
special care ought to be taken not-
to allow the patient to get the fact as
fat persons are unfit for the procreation
of children "owing to want of agreement
in the genital organs" here in this
passage he more especially alludes
to the Male Sex. Morgagni gives
the following interpretation of the
opinion of Réalissencus on this subject.
"As in women of this kind all the
cellular membranes are distended
with fat; it is natural to conceive
that from the neighboring cellulose
becoming very fat, or from fat being
accumulated in the membranes of
the fallopian tubes, in the fimbriae,
or at least in the membranes of the
ligament which they call, Alae respertilionum,
all these parts or some of these may
he obstructed in their motions necessary to generation"

The ancients seem to have held that the intemperaments of the uterum, were the principal causes of sterility; Galen in his Commentary has given a somewhat lengthy disquisition on this point; Hippocrates in the sixth second aphorism of the fifth book. Thus expresses himself: "Women who have the uterum cold and dense and compact do not conceive, for the semen is extinguished, and in women whose uterum is very dry and very hot, the semen is lost from the want of fluid, yet the woman whose uterum is in an intermediate state between these
Temperaments proves fertile" Syd. 
Senapian says "A humid temperament
occasions sterility in the same way
that the ground proves injurious
to seed which is sown upon it;
and a hot temperament dries up
the semen, as the earth consumes
the seed during the heat of the
Paulus Aegyptiaca recommends that
the whole body be preserved in
a proper temperament, by the
moderate use of bathing, exercise,
food &c. He recommends their use
which are heating and moderately
flatulent; and taking wine in
moderation; among posture & the
Recommends such as the Rocket, Clains, hedges Mustard, but gives a special warning against the use of Calamin and Rive: he says that retention of the menses indicate a cold temperament of the stern, and recommends that the natural heat should be recalled by all kinds of fomentations and aromatic fumigations, and although in a previous passage he recommends the use of moderately flatulent remedies he now incurs the use of Cuminum, Anise, and other of the Umbelliferous aromatic seeds which have essentially Carminative properties, and the Calaminus aromatics juniper berries mixed with pepper
Strictions of the lower part of the belly and mates, and the use of pessaries of Myrrh, Rue, Galbanum and Castor.

When the temperature of the body is increased, the menses diminish in quantity, and voided with pain, together with an ulcerated condition of the vulva, a warm intemperament of the uterus exists, and is to be counteracted by Cooling herbs as lettuces, Mallows, Cucumbers, &c. &c. &c. by the application of the juices of plants to the lower parts of the body.

A humid intemperament is indicated by the menses being thin and in excessive quantity,
in such cases a dehydrated diet is recommended and friction to the upper parts - enemas and dry 
and moderate quantities - the strengthening of the internal by 
astringents as pomegranate flowers, 
the tender shoots of the bramble 
and galls to.

A dry temperament is to be 
enned by barks and gums, vegetable 
diet, "wine in moderation and that 
ot too old."

When thick humours prevent 
Conception, the woman ought to 
be purged, and an injection of 
The whey of woman's milk ad 
ministered. "Pituitous humours 
are to be evacuated by excessive
Indorifies or limeties, or downwards by the bowels. The following medicine may be given, of carder of Thyme, as Benphorium, as Pepper, of the seeds of Macedonian Parsley. Equal parts, triturate together and give the amount of two draughts to drink.

Some have, and I think with good reason, described a class of cases of sterility which seem to depend on some particular indisposition of the body, or on some general dyscrasia which exercises an influence on the uterine and permits its functions; and may include under this head all the maladies which impair the powers of the system. This form of sterility is generally only
Temporarily, and ceases whenever the disease or state of the system causing it is cured.

The strong sympathy which is well known to exist between the Mammary and the reproductive organs is very well shown in the fact that women seldom conceive while they are nursing, and according to some lactation may be considered as a cause of sterility, but this is only a temporary cause, and it requires no special mode of treatment, except the removal of the cause, and when prolonged lactation has produced an emaciated or debilitated condition of the body, a course of nourishing remedies may require to be continued.
for a considerable length of time, before the system has been brought up to that standard of health and rigour, most favourable to conception.

T. E. Adamston Charles