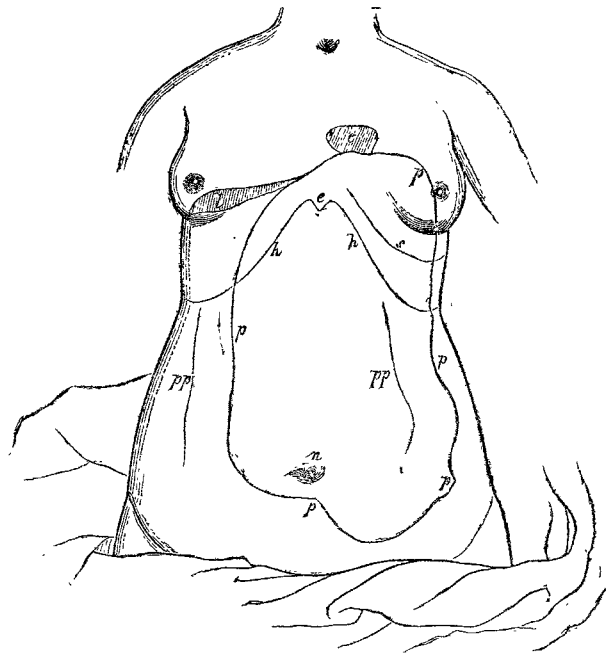


supposed peritonitis to show the serous membrane devoid of all roughness or congestion and every way healthy.

Turning, then, to the physical signs of peritonitis, there are two which precede, and outlive, all others; which belong to all cases, however differing in intensity; and which therefore surpass all others as elements of the diagnosis. These are, dulness at the inflamed place, and immobility at and around it.

The first of these two is better seen in inflammations less diffuse than that now before us. The last, however, may be profitably noticed where, as in this instance, it reaches its maximum.



*c*, Cardiac dulness. *n*, Navel. *e*, Ensiform appendix. *l*, Hepatic dulness. *h h*, Edges of hypochondria. *p, p, p, p, p*, Outline limiting the tympanitic region of the belly, and enclosed in a region occupied by a thin layer of liquid. *pp, pp*, Portions of a similar outline formed by the displacement of the preceding. *s*, Curved line forming the lower border of that part of *p, p*, occupied by the stomach, as shown by its sound to percussion.

Looking, for example, to the abdomen of this patient, we find, not only a great general distension, but a perfectly motionless condition of the whole of its anterior wall; in which even the most careful scrutiny fails to detect any perceptible movement during breathing, though each act of inspiration lifts the very bed-clothes below the neck in a way that may be recognised some yards off.

Again, tracing the common boundary line of the chest and belly shows that the diaphragm, and the viscera attached to its upper and under surfaces, are so greatly pushed up as to usurp a considerable portion of the thoracic cavity; the liver being immediately below the right nipple, and the dulness produced by the apposition of the heart to the chest being far above (instead of below) the left nipple.

The dulness produced by the presence of liquid is here modified, by the thinness and wideness of the layer of lymph on the one hand, and by the tympanitic distension of the intestinal canal on the other. The canal, indeed, rises to the surface of the belly, at its middle, as shown by our diagram; stomach and bowel being plainly distinguishable from each other (at *s*) by the different characters of their sounds on percussion.

I am not at all sure that the physiology of these details has ever been accurately pointed out. If I recollect aright, it has been suggested that, abdominal movement being painful and dangerous, Nature circumvents it by a kind of breathing exclusively thoracic.

But this alleged "final cause" is defective as well as "barren" in the Baconian sense. The belly *does* move. Half the thorax *does not*. And I would even add, that the diaphragm does not so much avoid, as lose all capacity for, its ordinary movements. It is paralysed—somewhat to exaggerate its state—by a paralysis, too, which it usually shares with the lower part of the thorax, as well as with the adjacent anterior wall of the belly, and with the co-ordinate muscular walls of the digestive canal. And the paralysis thus caused by peritonitis of its lower aspect is often contrasted with phrenic pleurisy involving its upper serous aspect, in which the agony of breathing is usually deferred and diminished by a long, slow, deep breathing, such as

brings the whole chest into play, until checked by an effort which looks very like a voluntary one of the poor patient.

This seems, therefore, the clue to the physical signs of peritonitis: paralysis, and hence distension, of the intestines and the belly; including in the latter all its movable walls, whether muscular, costal, or diaphragmatic. Paralysis, caused by a state which also produces pain, but often outlasting it; independent of all liquid effusion, compatible with scarce any exudation whatever. Paralysis, let me add, such as rarely or never annihilates all movement, even in the enormously tympanitic bowels which seem to demonstrate an utter stagnation.

For often, as in this case, the repetition of a careful physical inquiry, three or four minutes after the outline of the liquid has been unmistakably mapped by percussion, will show that the abdomen (to all appearance as motionless as the patient) has been the seat of a great change in the arrangement of the bowels and of their surrounding exudation. Our patient, for example, has not stirred in the few seconds that elapsed since we marked out the line *p p*; and yet its distinct curves are now as distinctly replaced by those of the parallel outline *pp, pp*, showing a considerable intestinal movement.

Another point we may notice is, the ease with which fluctuation is detected in these cases. Whenever a skilful manipulator is in doubt about the presence of this symptom, it would, I believe, be safe to say that it is really absent. At any rate, I suspect that errors are incomparably more frequent in the opposite direction; in the affirmation of fluctuation where none exists. The "fluctuation" of the surgeon, however, is not always the "thrill" which seems most easy and conclusive for the physician in these cases to detect. Here, as you may feel, this sign can not only be obtained without any pain to the patient; by one light tap of the finger, with half of the hand barely touching the belly a few inches off—but merely to place the hand gently on the belly gives you a perceptible thrill at each effort of breathing, limited as this act seems to be to the subclavian regions only.

The diagnosis not only affirms extensive (almost universal) peritonitis, but refers this peritonitis, conjecturally, to such an ulceration of the ileum as is itself a disproportionately large and early element of pulmonary tuberculosis. The scanty breathing sounds on the right side indicate the tubercle, probably deposited in both lungs, to predominate here.

The same history and symptoms which justify this opinion permit no hope of a cure. To assuage pain is almost all we can expect to do; and even in this, our success is likely to be but imperfect.

[The patient died in five days. The necropsy confirmed the above conjectures, save only as respected the quantity of liquid in the peritoneal cavity. Scanty as it had been at first, the exudation had been still further reduced by absorption before death.]

## ON

# THE TREATMENT OF ANEURISM FROM ANASTOMOSIS BY EXCISION.

By OLIVER PEMBERTON, Esq.,

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THE description which John Bell gave, in 1796, of the aneurismal tumour, which he ventured to call "Aneurism from the dilatation of anastomosing vessels," has never been surpassed in accuracy: the varicose tumour of Petit, the erectile tumour of Dupuytren, the telangiectasy of C. F. Graefe, and even the arterio-capillary tumour of Gerdy (*Chirurgie Pratique*, t. ii. p. 493), fail to convey a more correct notion of the features of this remarkable disease. To our knowledge, then, of the anatomical characters or the pathological condition of the parts entering into the structure of these tumours there can be little added that would not be found already recorded in the luminous pages of Bell, or in the writings of those other authorities to whom I have referred. It is otherwise, however, with the question of treatment.

For the most part the means of treatment selected in the hope of curing "aneurism by anastomosis" resolve themselves into three well-marked divisions. These are—

1. Endeavours to alter the intimate structure of the tumours, so as to render the further development of the arterial network

well nigh impossible, and at the same time to promote its destruction and absorption.

2. The deligation of the principal arterial branches that are distributed within the tumour itself, or of those main trunks that immediately give off the branches that nourish it and pass about its locality.

3. The excision of the disease.

The first division comprehends pressure, the use of refrigerants, of caustic pastes, the injection of astringent fluids, and the introduction of setons and of needles with the view of exciting suppuration. Without, here, more particularly inquiring as to the value of compression, refrigerants, caustics, and the injection of astringent fluids, it may be affirmed that each one of these methods will prove of great utility in certain cases; these will, however, be found to be characterized generally by their comparative insignificance in size, and by their situation on the more solid textures of the frame. They appear to me altogether inadmissible in a case like that which I am about to relate, as their exhibition could only delay the attainment of the end in view. On the other hand, the introduction of setons, of numerous single threads, of needles, and ligatures, with the view of exciting suppuration, or other means of treatment having similar objects to attain—all these will be eminently useful, even should they fall short of effecting a complete cure of the disease. The excitement of suppuration in all parts of one of these vascular growths cannot fail in changing completely the nature of its structure; so that should absorption of the now altered tissue be, from its size, a matter of improbability, at least one great danger—that of hæmorrhage—is absent, and other steps to ensure its removal can now be adopted in safety.

Of all the methods of treatment devised for the relief of this formidable disease, perhaps none have resulted in so great disappointment as that in which the ligature of either the main arterial trunks, or their branches supplying the tumour, has been accomplished. The return of blood into the disease in many instances occurred as certainly as the flow through the main channel was cut off, and where the only branch yielding a supply was apparently arrested, a new one, ere long, was found to have arisen near the same place. An exception, however, to this result, as will be seen, must be made in favour of those tumours situated in or near the orbit.

Of forty-five cases in which the ligature was applied, either on the branches or the principal trunk, the following results were obtained:—

In ten of these cases the branches were ligatured. Of the patients who were submitted to this treatment not one was cured!

In thirty-five the principal trunk was tied. Of this number, fourteen were cured, ten died, nine were unsuccessful, and in two the result was imperfectly given. Further, in reference to situation, of these thirty-five, six cases were tumours in the orbit; of these, five were cured, and the sixth was reported as being imperfectly so.

It would appear, then, from these observations, that the ligature on the branches has altogether failed, and that where the principal trunks were tied, success was only remarkable when the tumours were within the orbit.

With such evidence of the danger and uncertainty attending this practice in the treatment of these diseases, under what circumstances, let us inquire, are we justified in resorting to it? In the first place, the tumour must be sufficiently formidable as to endanger the life of the patient, should its further increase be unarrested. Secondly, to check hæmorrhage. Lastly, with the view of preparing the tumour to undergo, in comparative safety, that most certain of all remedies, (where its situation renders it practicable,) the excision of all the parts entering into its formation.

The excision of the structures constituting aneurism by anastomosis, seems to have impressed, in a very strong degree, the minds of those surgeons who first directed their attention to its relief. "You must not cut into it, but cut it out." This was the opinion held by John Bell, and he vigorously and successfully illustrated its value. J. L. Petit held the same doctrine, expressing it in the important caution that the incisions should be made in the sound tissues, where the bloodvessels were unaffected.†

George Freer, who published his "Observations on Aneurism," in 1807, and who added a lustre to his connexion with the General Hospital in this town that has never been sur-

passed, by being the first to successfully tie the external iliac artery for the cure of femoral aneurism, also was impressed with the importance of the total removal of these growths by the knife. He records two cases, in which the disease was situated in the cheek, wherein the treatment by excision was attended by complete success. (p. 34.)

More recently, surgeons have been content to regard the operation by extirpation as the means of treatment that should be adopted when all others have failed. There are no records of late years, that I am aware of, of cases where this mode has been resorted to in the first instance; and yet there are many instances where such a course would have induced far less suffering, and would have placed even life itself in smaller peril. Thus Nélaton (*op. cit.*) relates, that M. Mussey, for the relief of a fungus of the head, tied both common carotids, but was after all obliged to have recourse to excision, and cured his patient.

Dr. Warren's case also (*American Journal of Medical Science*, 1846) may be perused with advantage, as it shows that however necessary preliminary treatment may be ere excision can be ventured on in safety, it yet must come to it at last. The tumour, in this instance, was situated on the forehead, and was three inches in diameter: after repeated applications of needles and compressing ligatures to the arteries in the neighbourhood of the disease, together with the use of caustics, the cure had to be completed by excision.

This excision, or complete extirpation of the diseased structure, need not of necessity be carried out by the knife. Sir Benjamin (then Mr.) Brodie effectually accomplished it in the case of a tumour similarly situated, and which had resisted all previous efforts at cure, by means of ligatures so applied around steel needles, that complete strangulation was produced at its base. ("Medico-Chirurgical Transactions," vol. xv., p. 177.) The situation, however, of the disease, must be the main guide to the selection of the mode by which it shall be thus entirely removed.\*

The following case will illustrate most of the points that have been referred to in the preceding observations:—

A. W—, aged fifteen, a tall, spare, sallow-complexioned girl, was placed under my care in the General Hospital, Birmingham, on the 19th of November, 1858, by Mr. William Higgins, surgeon, of Abbots-Bromley, in Staffordshire, for the relief of a vascular enlargement of the upper lip.

*History.*—Her parents are living, and healthy. She has had twelve brothers and sisters, of whom six are living. No member of her family, to her knowledge, has any mark or deformity, or any affection similar to her own. She has been always somewhat delicate in health, but has not had a serious illness. Menstruation commenced a year since, and has continued regular to the present time. The growth first made its appearance when she was three years old, in the form of a small red spot on the left half of the upper lip, and has gradually increased to its present dimensions. Both lobes of the thyroid gland are considerably enlarged.

*Present condition.*—The left half of the upper lip is entirely occupied by a large pulsating, compressible mass, of a dusky-red colour. The disease extends upwards as high as the malar bone; outwards, to within a short distance of where the facial artery crosses the lower jaw; inwards, for half an inch beyond the mesial groove; and downwards over the mouth, closing completely the view of its orifice, and concealing the lower lip. It implicates within these limits the entire thickness of the lip and cheek. At the free margin of the growth, where it is most depending, ulceration has taken place through the red line of the lip, a thick brown scab marking the arrest of recent bleeding. The dusky-red colour fades away very gradually in the white of the cheek and lip, its disappearance being shown by numerous veins displaying themselves for the first time, coursing downwards on all sides towards the tumour. There is visible pulsation. Grasped by the hand, its bulk somewhat diminishes, and a strong throbbing sensation is experienced as if conveyed throughout the entire swelling; whilst, in places, vehement pulsation, synchronous with the wrist pulse, is observed. The bridge of the nose, for rather more than an inch, is occupied by a similar structure, presenting the same dusky-red appearance, and of a similarly pulsating character. Compression of the facial arteries does not appear to perceptibly diminish either the bulk or the pulsation of the tumour. These vessels are large, tortuous, and unnaturally prominent; they roll under the finger like pieces of whipcord, but the left one is much larger than the right.

The tumour has always been more or less painful, but to a

\* Nélaton, *Eléments de Pathologie Chirurgicale*, tom. i., p. 540.

† "J'ai traité, dit Petit, plusieurs de ces tumeurs, que j'ai emportées sans avoir la moindre hémorrhagie; mais je coupais les vaisseaux dans le lieu où ils n'avaient que leur diamètre naturel."

\* See Mr. Hodgson's case, "*Medico-Chirurgical Transactions*," vol. ix., p. 216.

greater degree since menstruation, the recurrence of a period being marked by increased energy in the pain experienced, as well as by turgidity and livid discoloration. About three months ago it bled for the first time. The blood was of a bright arterial colour. She was then menstruating, and the bleedings have been especially repeated at each monthly period since. The annexed woodcut accurately represents her appearance at this time:—



A sharp attack of arterial hæmorrhage having taken place a few weeks after her admission, on the 15th of December, under chloroform, I proceeded to place a ligature on the left facial artery as it crosses the lower jaw. On exposing the artery, it was seen to be as large as a goose-quill, varicose, with its walls thinned in the extremest degree. It was so closely adherent to the vein, similarly enlarged, that in separating it the vessel gave way, and bled furiously. I therefore at once tied both vessels, placing a ligature above and below the rent, so as to effectually control the hæmorrhage. After this was accomplished, the pulsation appeared to me diminished, but not materially so. The ligatures separated without bleeding on the twelfth day. The tumour was not altered in size, but the vehemence of the pulsation was considerably lessened.

Jan. 17th, 1859.—A portion of the under and inner part of the lip, measuring two inches in diameter, was included in a noose, after the method of that described by Mr. Fergusson, (*Edinburgh Monthly Journal of Medical Science*, 1847.) Free suppuration in the part strangled followed this proceeding, and once or twice active arterial hæmorrhage. The application of cold, however, and repeated dressings with the tincture of the sesquichloride of iron sufficed to restrain it.

Three weeks after this I passed a needle underneath the superior coronary artery on either side, as it ran, enlarged and tortuous, to the disease. All pulsation ceased in the intermediate portion of the lip on the tightening of the strings cast around the needles. At the end of a week these were withdrawn.

March 16th.—Pulsation has ceased altogether in the lip, mainly between the situation of the ligatures on the coronary vessels. It yet remains in the cheek and at the root of the nose. The tumour generally is harder to the feel, but unaffected as to size. Two needles were passed beneath the vascular parts on the bridge of the nose on either side close to the cheek, and ligatures firmly cast around them. These were removed on the 23rd, when the pulsation was found to be diminished, but not destroyed.

May 11th.—Three threads, doubled, were passed from above downwards, starting at regular intervals, from within outwards, on a level with the malar bone, and traversing the swelling in the following manner:—The needle was entered at its upper limit, and a single thread was passed subcutaneously so as to come out where the skin joined the red margin of the lip, and there left free. The upper end of the thread, left sufficiently long for this purpose, was next carried through the same aperture from which the first one started; but it was made to penetrate deeper, so as to run close above the mucous membrane of the mouth, having its point of exit opposite to the thread already placed, the thickness of the lip and of the disease intervening between the two strings. This process having been repeated in two other portions of the tumour in a precisely

similar manner, the six threads were next tied firmly, the effect being that the mass shrank and contracted upwards to such an extent that the lower lip became visible.

31st.—These threads were removed. Their presence has excited general suppuration, and the tumour, though not smaller in size, is much harder and more circumscribed in its character.

June 15th.—Two portions, of the size of a half-crown each, situated in the front view of the mass, were transfixed by needles crossing each other; threads were passed around these, and the tissues strangled between them.

21st.—These needles were withdrawn, having excited further suppuration in the disease. There is now only very slight pulsation to be detected in the cheek, whilst it has altogether disappeared from the lip.

From this date, the parts inflamed and irritated by the repeated introduction of threads and needles were permitted to subside. All tendency to hæmorrhage ceased, the wounds healed, and the lip and cheek settled down in a permanent, solid tumour, scarred and disfigured by the treatment necessary to destroy its vascular character.

I could now only contemplate the excision of this, as promising to relieve my patient permanently and effectually of so dreadful a malady. In this view I was strengthened by the opinion of Professor Syme, who, visiting the hospital with me in August, and carefully examining the condition of the disease, recommended this mode of treatment as the one alone calculated to afford her relief.

With the view of recruiting her health, somewhat impaired after nine months' confinement within the hospital, I advised her going home for a time. Accordingly, she left on Sept. 2nd, and was re-admitted on Sept. 27th, looking well and strong. At this time, on examination, only a very faint pulsation in the upper part of the disease could be detected. There was no thrill, and no ulceration. The deformity, however, was even more striking than at first.

Oct. 5th.—Under chloroform I proceeded to extirpate the growth in the following manner:—A double-edged knife was passed at once through the cheek into the cavity of the mouth, at a point to the outside, and rather behind, the malar bone, all the tissues being then rapidly severed downwards to the angle of the mouth. From the commencement of this first cut a second was made to run obliquely across the cheek, close to the left ala of the nose, so as to extend beyond the mesial groove of the lip, thus including between the two incisions the entire disease, in a V-shaped flap. The hæmorrhage for a few moments was alarming. Ligatures were rapidly applied, which sufficed to control its more prominent sources, but it continued abundantly, until the parts were drawn closely together by hair-lip needles. After five of these had been inserted so as to have a good wide sweep from the cut edges, and the threads drawn around them, the bleeding ceased. Owing, however, to the great thickness of the cheek, the wound came together with some difficulty, and there was in places a good deal of irregularity and tension about the needles. The patient was faint from loss of blood, and required an abundant supply of stimulants ere it was prudent to remove her to bed. On examining



the excised part, scarcely any traces of the original structure were to be detected. The materials of which it was composed

appeared of firm, unyielding texture, with numerous fibrous bands intersecting. The delicate cellular and vascular tissues had evidently entirely disappeared in the repeated suppurative processes to which they had been subjected. The broader portion measured upwards of three inches in length, whilst it was nearly two in thickness.

Oct. 9th. —Three needles were removed yesterday, to-day the remaining two. The parts are much swollen, but there is no gaping of the edges. After this, her progress was most favourable; the wound healed rapidly, and as the scars of the needles diminished in their prominence, it was wonderful to remark how little the cheek seemed to have lost, notwithstanding the great gap that had been made in its substance by the operation. Towards the lip and left angle of the mouth there was even yet too much material left, and could more have been taken away, having a due regard to the subsequent union of the parts, I felt that her appearance might have been still more improved. Notwithstanding this impression of my own, she seemed well pleased at her appearance, and expressed herself as contented to abide by the result, which is accurately portrayed in the second woodcut, taken just before her discharge from the hospital on December 9th, 1859.

The foregoing narrative warrants the conclusion that the ultimate treatment of aneurism by anastomosis must be by the complete excision of the parts which happen to be involved in the disease. It matters not what amount of time may be occupied in the preliminary treatment; this, by whatever means accomplished, will have reference to but one object—the diminution of the vascularity of the growth, so as to render extirpation as early as possible practicable.

Whilst, then, it is admitted that there will always be cases in which the surgeon will wisely resort to general means of treatment to alter the structure of the growth ere the knife is made use of, (in which category I would place the case of A. W.—,) yet there may be others where in the first instance a contrary method may be desirable, and the deformity be removed without any delay.

In the selection of the early mode of treatment, much will depend on the circumscribed or diffused character of the disease. Where the latter feature prevails, the diminution of the vascularity should be sought by all possible means; whilst in the former, we may safely cut it out at once. The following circumstance will add value to this opinion:—

Within a few days of Professor Syme's examination of this patient with me, a case precisely similar was sent to him, for his opinion, by a surgeon at Carlisle; it was, however, in the pulsating stage. Mr. Syme advised its complete removal without delay; and as the patient desired him to perform the operation, it was at once done. In describing the proceeding to me in a letter ten days subsequently, he says: "There was not more than the ordinary bleeding from the same extent of excision, but the gap was fearful. It extended from beyond the angle of the mouth to the other side of the nose, and nearly up to the eye. Nevertheless, by cutting laterally through the cheek, I obtained sufficient freedom to bring the edges together. They have united perfectly, and I really do not think you could tell that any freedom of consequence had been taken with the face."

It will be noticed that the bleeding in this case was not more than ordinary. The disease was, I have no doubt, accurately defined, and admitted of the vessels being secured in that situation where they were of only common magnitude. On the other hand, after nine months of treatment of various kinds, I could only describe the hæmorrhage as of a most formidable character in the case I have adduced; and I can now only attribute this to the eminently diffused nature of the tumour, its structure shading off almost imperceptibly into surrounding parts.

We are justified, then, in arriving at the following conclusions which may regulate our surgical treatment of these cases:—

a. To cut out the parts containing the vascular structure as speedily as possible.

When the lips are the seat of disease, this proceeding may, in some instances, be adopted, to the exclusion of all other modes.

b. If this excision cannot with safety be accomplished in the first instance, when the disease is otherwise situated, owing to the dangers of hæmorrhage, or the prospect of too great disfigurement, the branches of arteries leading into the growth should be tied subcutaneously by needles and ligatures, whilst the intimate structure of the disease may be further altered by the introduction of numerous double threads, in the way I have described.

Should the situation be altogether unfavourable for the use of the knife, Sir Benjamin Brodie's plan of strangulation at the base should be adopted.

By whatever mode, however, the vascular character of the growth is modified, let this change only be desired in the hope that one or other of the means of extirpation I have mentioned may be carried out.

Temple-row, Birmingham, April, 1860.

## ON THE INFLUENCE OF TROPICAL CLIMATES ON THE RISE, PROGRESS, & TREATMENT OF UTERINE INFLAMMATION.

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(Concluded from page 419.)

THE etiology of uterine inflammation in tropical climates, its rapid progress and unusually severe symptoms, have been considered in previous communications; but a still more important question must be briefly answered.

3rdly. *What modifications are required in the treatment of uterine inflammation in tropical climates and in tropical invalids?*

Considered in this point of view, the treatment of uterine inflammation divides itself into the treatment to be adopted during a residence in tropical climates, and that required after returning to a temperate region.

### 1. *Treatment of uterine disease in tropical climates.*

It is obvious, from what has been previously stated, that, on arriving in India or any other tropical region, young women should keep quiet, and learn to so adapt themselves to the climate as to obviate its inconveniences and ward off its dangers before their constitution be subjected to any fresh trial of strength. It would be wise to seek to re-establish the regularity of the menstrual flow, and not to allow marriage to take place until this be accomplished. European habits of activity should be kept up so far as experience teaches them to be consistent with health; riding and driving at dawn and sunset are evidently indicated; and it is for those who practise in hot climates to decide how far exercise under solar influence is or is not prejudicial to European women. It is evident that, so far as the male sex is concerned, this is not followed by the evil results which might have been anticipated. It has been remarked by the well known writer on military medicine, Dr. Robert Jackson, that in the East and West Indies, European troops were never so healthy as when actively engaged under solar influence, and never so sickly as when reposing in barracks. The healthiness of the European troops engaged in the late siege of Delhi, under tremendous heat, was a matter of wonder. For myself, I never felt stronger than during the ten days spent in crossing the desert from Gaza to Cairo, in saddle all day, at the end of May, the thermometer ranging from 100° to 120° Fahr.

The strengthening influence of the cold bath and cold shower-bath is well known; but even when European women are not suffering from uterine inflammation, it would be well if, during a residence in tropical regions, they were to impart to the womb a portion of that bracing influence so largely given to the skin, by the daily use of cold water injections, administered by means of one of those vulcanized india-rubber syphon syringes, which can be so easily and safely employed.

I have been told by medical men who have practised in the East and West Indies that, even when not inflamed, the womb is in an irritable condition, and that the uterine and the vaginal secretions are unusually abundant; and Dr. D. Stewart even admits a morbid condition in these secretions, which so react on the womb as to bring on inflammation. Under these circumstances, it is evident that the habitual use of cold water vaginal injections is the best preservative against uterine inflammation, and the best means of enabling European women to prolong their residence in a hot climate. A change to the hills or a sea voyage are good modes of preventing uterine inflammation when it is brought on by failure of constitutional strength.