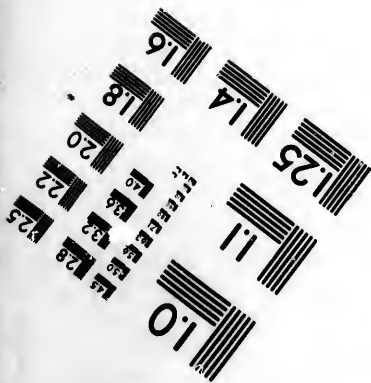
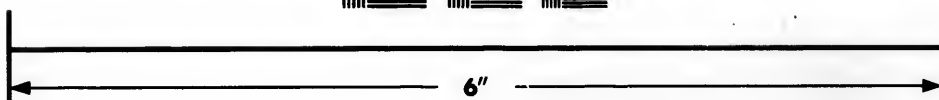
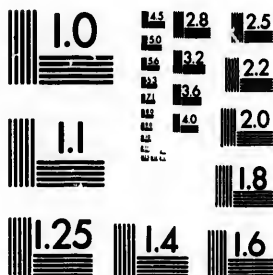


**IMAGE EVALUATION
TEST TARGET (MT-3)**



**Photographic
Sciences
Corporation**

23 WEST MAIN STREET
WEBSTER, N.Y. 14580
(716) 872-4503

**CIHM/ICMH
Microfiche
Series.**

**CIHM/ICMH
Collection de
microfiches.**



Canadian Institute for Historical Microreproductions / Institut canadien de microreproductions historiques

© 1985

Technical and Bibliographic Notes/Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- Coloured covers/
Couverture de couleur
- Covers damaged/
Couverture endommagée
- Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée
- Cover title missing/
Le titre de couverture manque
- Coloured maps/
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur
- Bound with other material/
Relié avec d'autres documents
- Tight binding may cause shadows or distortion
along interior margin/
La reliure serrée peut causer de l'ombre ou de la
distorsion le long de la marge intérieure
- Blank leaves added during restoration may
appear within the text. Whenever possible, these
have been omitted from filming/
Il se peut que certaines pages blanches ajoutées
lors d'une restauration apparaissent dans le texte,
mais, lorsque cela était possible, ces pages n'ont
pas été filmées.
- Additional comments:/
Commentaires supplémentaires:

- Coloured pages/
Pages de couleur
- Pages damaged/
Pages endommagées
- Pages restored and/or laminated/
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
- Pages detached/
Pages détachées
- Showthrough/
Transparence
- Quality of print varies/
Qualité inégale de l'impression
- Includes supplementary material/
Comprend du matériel supplémentaire
- Only edition available/
Seule édition disponible
- Pages wholly or partially obscured by errata
slips, tissues, etc.. have been refilmed to
ensure the best possible image/
Les pages totalement ou partiellement
obscurcies par un feuillet d'errata, une pelure,
etc., ont été filmées à nouveau de façon à
obtenir la meilleure image possible.

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	14X	18X	22X	26X	30X
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12X	16X	20X	24X	28X	32X

The copy filmed here has been reproduced thanks to the generosity of:

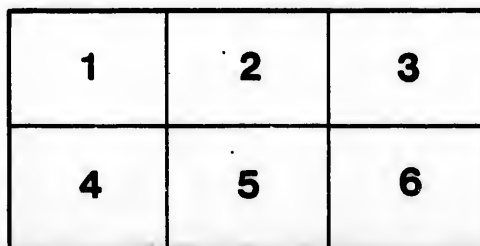
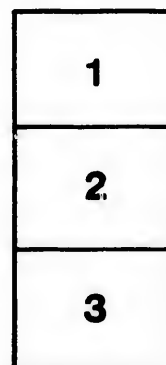
Medical Library
McGill University
Montreal

The images appearing here are the best quality possible considering the condition and legibility of the original copy and in keeping with the filming contract specifications.

Original copies in printed paper covers are filmed beginning with the front cover and ending on the last page with a printed or illustrated impression, or the back cover when appropriate. All other original copies are filmed beginning on the first page with a printed or illustrated impression, and ending on the last page with a printed or illustrated impression.

The last recorded frame on each microfiche shall contain the symbol \rightarrow (meaning "CONTINUED"), or the symbol ∇ (meaning "END"), whichever applies.

Maps, plates, charts, etc., may be filmed at different reduction ratios. Those too large to be entirely included in one exposure are filmed beginning in the upper left hand corner, left to right and top to bottom, as many frames as required. The following diagrams illustrate the method:



L'exemplaire filmé fut reproduit grâce à la générosité de:

Medical Library
McGill University
Montreal

Les images suivantes ont été reproduites avec le plus grand soin, compte tenu de la condition et de la netteté de l'exemplaire filmé, et en conformité avec les conditions du contrat de filmage.

Les exemplaires originaux dont la couverture en papier est imprimée sont filmés en commençant par le premier plat et en terminant soit par la dernière page qui comporte une empreinte d'impression ou d'illustration, soit par le second plat, selon le cas. Tous les autres exemplaires originaux sont filmés en commençant par la première page qui comporte une empreinte d'impression ou d'illustration et en terminant par la dernière page qui comporte une telle empreinte.

Un des symboles suivants apparaîtra sur la dernière image de chaque microfiche, selon le cas: le symbole \rightarrow signifie "A SUIVRE", le symbole ∇ signifie "FIN".

Les cartes, planches, tableaux, etc., peuvent être filmés à des taux de réduction différents. Lorsque le document est trop grand pour être reproduit en un seul cliché, il est filmé à partir de l'angle supérieur gauche, de gauche à droite, et de haut en bas, en prenant le nombre d'images nécessaire. Les diagrammes suivants illustrent la méthode.

D.

Lockhart, F. A.

*With the Author's
Compliments.*

38 Bishop St

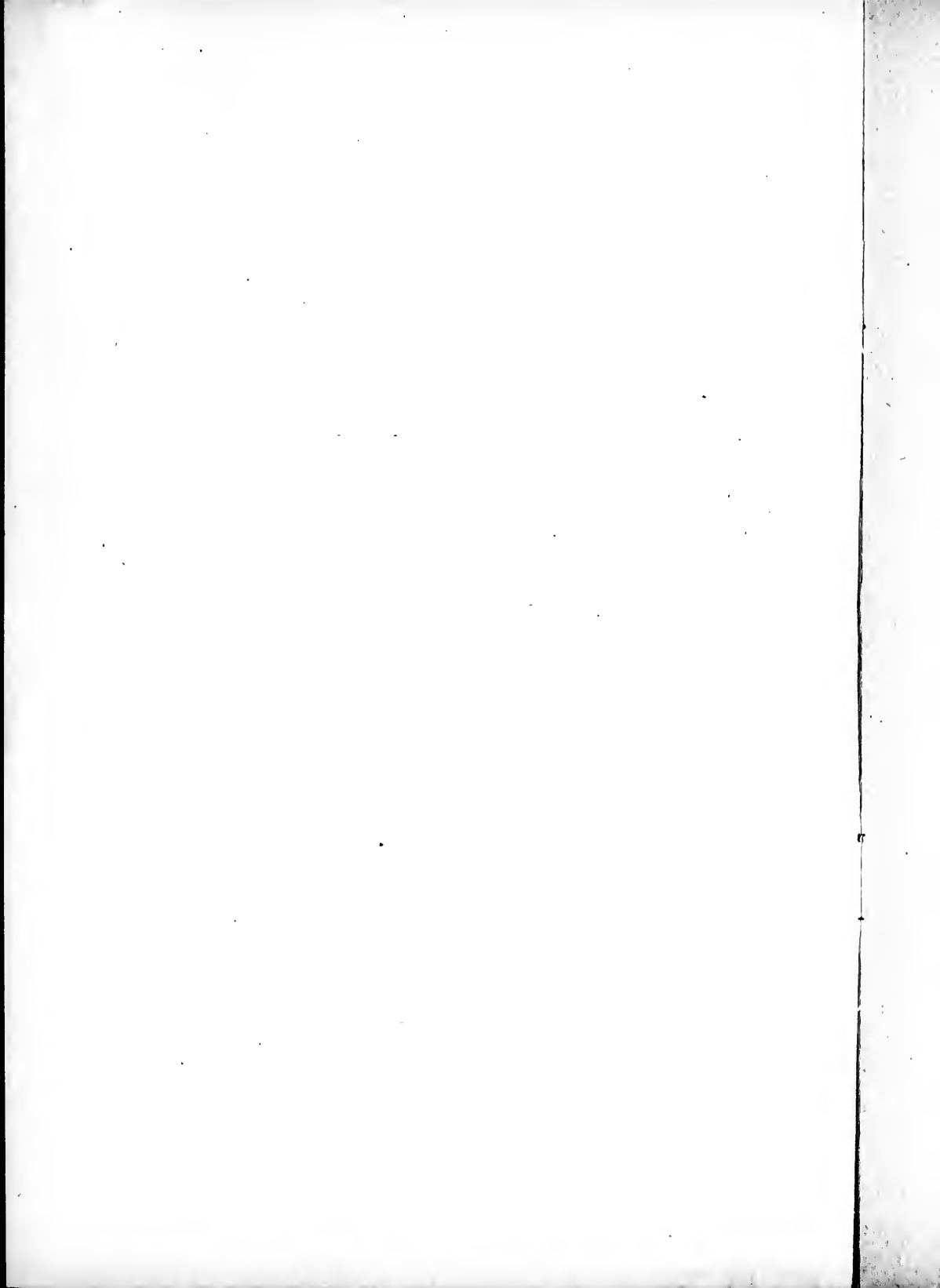
DISCUSSION ON DYSMENORRHEA.

BY

F. A. L. LOCKHART, M.B. (Edin.)

Assistant Demonstrator of Gynæcology, McGill University ; Assistant Gynæcologist
to the Montreal General Hospital ; Gynæcologist to the Verdun
Hospital for the Insane.

Reprinted from the Montreal Medical Journal, March, 1897.



DISCUSSION ON DYSMENORRHŒA.¹

THE TREATMENT,

BY

F. A. L. LOCKHART, M.B. (Edin.)

Assistant Demonstrator of Gynæcology, McGill University; Assistant Gynæcologist to the Montreal General Hospital; Gynæcologist to the Verdun Hospital for the Insane.

Treatment of Dysmenorrhœa.—The treatment of dysmenorrhœa is such a wide subject that one can only rapidly run over some of the different forms without fully advancing arguments for or against any one particular kind in the time at our disposal.

In considering this question, we must keep before us the fact that dysmenorrhœa is merely a painful manifestation of some abnormal condition of either the body generally or one or more of the pelvic organs, and that, in order to cure the symptom we must cure the cause. Thus our first steps should be directed towards discovering that cause. The physician who blindly treats dysmenorrhœa by a routine course of sedatives, without thorough investigation of the case, is doing justice to neither his patient nor himself. The routine use of this class of drugs is to be most strongly deprecated as they in time do positive harm in making patients their slaves and undermining their nervous system. Of course if one is called in to see a patient who is in the midst of a most acute attack of pain, an hypodermic of morphine is often absolutely necessary, although much may be gained by the application of heat to the hypogastrium and a dose of 10 grs. of antipyrine or phenacetine repeated twice if necessary with an interval of one hour. Alcohol acts like magic in relieving the majority of cases and it is largely used (far more largely than one would at first think) by women, but it should be utterly prohibited as the habit is very apt to grow on one and it really increases any local trouble which may already exist.

A great deal may be done to prevent the occurrence of dysmenorrhœa by care of the growing girl. I think that it is the experience of the older physicians, that dysmenorrhœa is growing more and more common, and this is to a great part due to the carelessness and ignorance of parents who do not know the extent of the injury that they are doing to their daughters by urging them to excel at their studies. As they approach puberty, girls should have freedom from all kinds of excessive work. They should be encouraged to go into the open

¹ Read before the Montreal Medico-Chirurgical Society, Dec. 18, 1896.

air and take as much exercise as is possible without actual fatigue. Instead of their brains being used, it should be their limbs, except just before and during menstruation, when they should be kept quiet, at all events until regular menstruation has set in. They should keep regular hours and their diet should be nourishing but simple. The girl ought not to be kept in ignorance as to what she should expect at puberty through any false modesty on the part of the mother. As a consequence of this want of knowledge, I know of at least one case where a young girl was just beginning to menstruate for the first time but, only noticing a stain of blood on her underclothing, went in bathing. She was attacked by pelvic peritonitis and has ever since suffered from dysmenorrhœa.

Once menstruation has become fairly established, we may relax our rules to a great extent, but there are few women who ought not to take especial care of themselves one week out of every four of their sexual life.

After this trouble has been once set up, what are we to do for its cure or relief?

In the first place, we must take the patient's personal equation into consideration if we hope to do her much good. Is she inclined to be neurotic or too introspective? If the latter, prescribe some regular occupation for her, but it must be one which will keep both mind and body occupied. In addition, you may prescribe a placebo or some simple tonic for her. If she is neurotic, advise some open air exercise, change of scene and the administration of nerve tonics. An excellent combination for these cases is one containing arsenic, valerianate of zinc and *nux vomica*, either in solution or pill.

Where the patient is a young girl just beginning to menstruate, you will often find that she is chlorotic, in which case this disease will require to be dealt with, and it is wonderful what an improvement in the pelvic condition can be effected in these cases by the judicious use of fresh air, wholesome diet and regular exercise and rest, combined with iron tonics. One of the best of these latter is Blaud's Pill with arsenic, although the compound syrup of the phosphates (Easton's), is also very useful. The condition of the bowels should be watched, the constipating effect of the iron being overcome by *nux vomica*, *castorca*, etc.

Under no circumstances should a local pelvic examination be made in these cases until you have conscientiously employed general remedies, and the girl should be encouraged to make as light of her trouble as possible; as an injudicious word of discouragement may convert her into one of those miserable neurotics, who wander from

doctor to doctor without relief and finally fall into the hands of charlatans and quacks.

If the above methods fail after thorough trial, it will be necessary to make a thorough pelvic examination per rectum. The condition usually found will be one of mal-development of the uterus, and this must be corrected by attention to general nutrition and local measures. One of the best of the latter is the application of galvanic electricity, which may be applied by placing one electrode over the sacrum and the other over the pubes, or, if this fails after thorough trial, the sacral electrode may be replaced by one in the vagina.

Pelvic massage has been highly recommended by some for this variety of dysmenorrhœa (which one might call "developmental"), but I think that its utility is doubtful. For one thing, it is extremely difficult to employ it effectively on account of the abdominal walls of a nullipara being usually so tense, and, secondly, the necessary manipulations are apt to direct the patient's attention to her genitals.

The bicycle is a most useful assistant in this class of cases, but its use must be very carefully regulated. It acts, of course, by stimulating the general and pelvic circulation and also as an encouragement to take exercise in the open air.

In congestive or inflammatory dysmenorrhœa, the indications are, first, to discover the cause, and, secondly, to remove it. For example, a small sub-mucous fibroid of the uterus may partially block up the canal and cause congestion of the endometrium, which swells up and causes the pain at the menstrual periods. Here the indication is to remove the diseased endometrium, and this may best be done by thorough curettage. The application of the positive electrode of a galvanic battery is also an efficacious remedy, although, naturally, the treatment will require to be more prolonged than where the curette is used. A slower, but sometimes a surer, way of removing the diseased tissue is to use gradual dilatation and the application of iodine, iodized phenol or pure carbolic acid to the interior of the uterus. If the uterus is out of position, you must endeavour to replace it and maintain it in its normal situation. If this cannot be done on account of adhesions, these may be softened by using the hot douche, by glycerine tampons and the application of iodine to the vaginal fornices. These methods will relieve the congestion as well as soften the adhesions. In the majority of these cases the uterus will be found to be prolapsed, in which event the wearing of a properly fitting ring pessary will give great relief by supporting the uterus and ovaries and so relieving the congestion, and it is under these circumstances that the much abused pessary will most strongly

prove its right to a place in gynæcological treatment. You should deplete the uterus and whole pelvis and try to restore the vessels to their normal condition. The flow of blood through the uterus may be lessened by giving ergot, hydrastis, viscum album, quinine and the like, all of which have a marked effect in causing contraction of the muscular fibres of the uterus.

Promote the activity of the bowels by salines for a few days and then keep them regular by cascara, liquorice powder, etc.

Moderate exercise such as walking or bicycling will be found of great service, this being so much better than carriage exercise on account of the effect the movements of the limbs have upon the pelvic blood supply. Some of the movements recommended by Thure-Brandt are also very useful in the same manner. The best are rotation of the limbs, their flexion and extension against resistance and rising and falling on tip-toes. All of these procedures determine the blood from the pelvis where more or less stasis has occurred, and cause it to flow more freely through the limbs and pelvis.

Locally, where the uterus itself is the seat of the congestion, much may be done by the extraction of blood from the cervix by either leeches or scarification. Boroglyceride tampons, galvanism, the application of iodine to the cervix and fornices, the judicious use of the sitz-baths (especially where the flow is slight) and the hot douche are also distinctly serviceable where you desire to reduce pelvic congestion. In an acute case, the application of hot stupes or else an ice-bag over the pubes will give great relief, as does also the application of a blister over each ovarian region.

A most useful form of treatment is gradual dilatation of the cervix by Hanks' dilators, etc., as was previously mentioned in connection with those cases complicated by the presence of a submucous fibroid.

Membranous dysmenorrhœa is probably a modification of the congestive or inflammatory form. Fortunately for suffering woman this is one of the rarest varieties of painful menstruation. It is also the most difficult to cure. Numerous methods of treatment have been instituted and highly recommended for this trouble, but that method which will cure all cases has still to be discovered.

One of the most highly praised methods is thorough cauterization of the interior of the uterus with the positive electrode of a galvanic battery, and this will doubtless cure many cases, especially if seen early.

Curretting, with or without the application of strong caustics, has many adherents, but, in the majority of cases, the membranes reorganize before many months elapse. Reamy, of Chicago, reports

the cure of three patients by the following decidedly drastic method of treatment. Five days prior to one menstrual period, he thoroughly curetted the uterus, using first a sharp curette and then an inflexible one of dull wire. The cavity is then thoroughly cleansed by swabs of cotton moistened in a 1 per cent. solution of carbolic acid. This latter solution is then replaced by one of 2½ per cent. of the same acid, at least twenty applications of this stronger solution being made at the one sitting. A loosely rolled wad of iodoform gauze is placed in the vagina and the patient is returned to her bed, having an ice-bag over the hypogastrium. The menstruation now due is generally missed. The patient receives a similar treatment, except that the sharp curette is omitted, fourteen days after the first operation and two other curettings with the dull curette, followed by the application of the acid, etc., at intervals of from fourteen to seventeen days, the amount of tissue which could be removed being less and less each time. In the first case, the menstruation was normal after the third month from beginning treatment. The patient became pregnant soon after and was quite well after delivery. The second patient had one relapse, which was cured by one more course of treatment, while the third required but the one course.

Duke treats membranous dysmenorrhœa by scarifying the cervix three or four times weekly between the periods. Just before menstruation begins, he thoroughly curettes the uterus and introduces a spiral-wire stem pessary into its cavity. This is worn for three or four months, the patient taking daily hot douches, even during the flow. This, however, is rather risky treatment, as one cannot always watch the patient as closely as one would like to when she is wearing a stem pessary. His objects evidently are to deplete the uterus, remove the diseased mucous membrane and allow of free drainage of the uterine cavity, so that the tissue may not form again.

The *spasmodic* form of dysmenorrhœa depends in many cases upon constitutional conditions, such as strong neurotic tendencies, and can often be cured by drugs, one of the first indications being to restore tonicity to the nervous system by arsenic, nux vomica, zinc, etc. Anti-spasmodics are indicated just before the period approaches, and, as there is often more or less anæmia present, iron and chlorate of potash may be added with benefit. A favourite prescription of my former teacher, Dr. J. Halliday Croom, is for a mixture containing *actæa racemosa*, perchloride of iron, chlorate of potash and *serpentina*, and I can bear witness to its undoubted efficacy in many cases. Olliver gives a combination of ammonium, potassium and sodium bromide nightly for one week midway between two periods and then

5 grs. of antipyrine every hour for six doses, if necessary, as soon as the pains are felt. He also recommends hot hip-baths when the discharge is scanty.

Cannabis Indica is a favourite drug to give and is especially useful where menorrhagæa is present. Nitro-glycerine, nitrite of amyl and viburnum are also highly recommended. Depletion of the pelvis is indicated and may be carried out just as with the other varieties.

Anti-spasmodics may be applied locally to the cervix with advantage. This was practised in olden times when the patients were instructed to squat down over a basin of burning herbs, at the same time as they dilated the vagina by their fingers. Sir James Simpson used to employ the vapour of carbonic acid gas, either alone or combined with that of chloroform. The gas was formed by putting equal parts of tartaric acid and bicarbonate of soda into a bottle with a little water. It was then conducted into the vagina through a pipe.

In the majority of the cases of spasmodic dysmenorrhœa, there is antelexion, with consequent endometritis and a certain amount of stenosis of the uterine canal, and these must be corrected before much relief can be obtained. This may be effected by dilatation of the cervix, either forcibly, by Goodell's or Sim's instrument, or else gradually, or, as some recommend, by dividing the cervix.

Dilatation is one of the oldest methods of treating stenosis of the cervix, Hippocrates stating "that where the orifice is very much contracted, it must be opened up with bougies or leaden instruments." It is also one of the best methods in the class of cases which we are considering. Many prefer forcible dilatation under an anæsthetic, thoroughly curetting the uterine cavity and inserting an intra-uterine stem pessary at the same time. This is undoubtedly good, but it is not always advisable to alarm the patient with the idea of an operation, when a similar or even better result may be obtained without an anæsthetic and with but little pain; I refer to gradual dilatation with graduated bougies, as has been described elsewhere. This method is practically painless, if properly carried out, is continuous and very effectual, several cases having been cured by it in my own practice.

The use of tents dates back at least two centuries, mention being made of them in a book written in 1676 by Van Roonhuysse. He used tents made of "gentian radix, medulla sambucii, or even by a prepared dry sponge, having been first moistened in melted white wax and squeezed in a press to make of it convenient pessaries; according to the exigencies of the case, by which means the neck of

the womb can be disclosed and widened and made to have its due purgations." He goes on to say that the patient may be made to wear an instrument (evidently a stem pessary) made of silver, ivory or horn, and prefers this treatment to divulsion of the cervix by the knife.

Most gynæcologists are opposed to the use of tents as they are apt to produce sepsis and pieces may become broken off and left inside of the cavity, but Poulet and Fraipont strongly recommend their use on account of their softening effect upon the tissues. They employ laminaria tents which have been preserved in a saturated solution of iodoforn in ether, as they are then antiseptic and pliable. This is followed, where necessary by forcible dilatation, which looks as if the advocates of the tent had not very much faith in it themselves.

Electrolysis is employed to overcome the stenosis by some, a bulbous pointed electrode being used. High currents are to be avoided, one of from eight to ten milliamperes being all that is necessary.

Many writers say that it is impossible to cure spasmodic dysmenorrhœa by dilatation, on account of the uterine canal again closing up, but Howard Kelly says that it will cure forty per cent. of the cases. He refers to forcible dilatation, and, while I can give no actual statistics, I feel confident that gradual dilatation will produce as good results.

The old method of divulsion of the cervix, as practised by Simpson, is not to be recommended. He held that the chief seat of the trouble lay in fibres around the external os and began to make his incision below the internal os, cutting right through the cervix at its lower extremity. If you are going to use the knife at all (and it is necessary every now and then), your best way will be to make several nicks through the fibres at the internal os, as it is these which contract and cause the spasm. The canal may be kept patent by strips of gauze or a stem pessary. As for Dudley's operation, where a wedge-shaped piece of the cervix is removed, I consider it wrong in principle, as you establish a condition, which, when caused by parturition, frequently calls for operation. I refer to laceration of the cervix. If in the one case, this sets up a chain of symptoms requiring operation, why will it not do so in the other?

