TREATMENT OF DYSMENORRHOEA BY EXERCISE

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In response to many inquiries evoked by a recent letter of mine in the *Journal* (August 22nd, 1931) on the subject of the treatment of dysmenorrhoea, I have been prompted to set down some details with regard to the method of dealing with that condition by means of exercise.

I wish to make it clear that my remarks refer only to cases in which the general health is good and in which there is no evidence of appendicitis or of pathological conditions of the genital organs. They include, however, variations in the size and shape of the body and cervix of the uterus, the pelvic organs being in most cases examined per rectum. Having ascertained that the patient is in good health and that the disability, whether it be pain, vomiting, nausea, headache, or malaise, occurs *only* in association with the menstrual period, I class it as a case of dysmenorrhoea, and give advice to the patient which may be referred to under the headings of hygiene, exercise, baths, and drugs.

HYGIENE

I explain to the patient that menstruation is a natural function and should be as free from pain and internal discomfort as are the other functions of the body; that, in the majority of women, this is the case; and that, since her organs are healthy, there is no reason why she should not overcome her disability during the period. I insist that the normal routine of life should not be interrupted during menstruation. The diet, daily bath, and action of the bowels should be as usual. There should be no reduction in the amount of exercise taken at other times. Active work is beneficial, as are outdoor games such as tennis and hockey, walking, riding, cycling, and rowing. No extra rest is necessary during the period; it may even do harm, as it is important to keep up a good circulation of the blood. The sensation of fatigue felt by some on the first day of the period is, in most cases, quickly dispelled by a warming exercise; whereas it is prolonged by rest, although the recumbent position produces an initial feeling of relief.

EXERCISE

The patient's history generally serves as an explanation of the cause of her dysmenorrhoea. It is usually found that the age of its onset, most commonly 16 to 19, corresponds with some change in the daily routine, involving more restricted time for exercise and increased hours of work, owing to study for an examination, or entry to an office, shop, or factory. With the first indication of menstrual trouble the inclination is to reduce the exercise still further, and, if possible, to lie down during the time of malaise. I therefore explain that, to prevent or cure the pain, the circulation of the blood must be stimulated by muscular exertion. If there is not time or opportunity for sufficient exercise in the open air, it should be supplemented by extra exercise done at home.

I have selected a few movements as being specially effective for dysmenorrhoea, and have had them printed on a single sheet, which I give to the patient, and tell her to do them for a quarter of an hour daily for a few days before the onset of the period, and on no account to fail to do them on the first and second days of the period. They should be done with enough vigour to promote a sensation of heat or a gentle sweat. With few exceptions this practice prevents the onset of the disability, and if the pain has already begun it is usually dispelled, or at least relieved, as soon as the feeling of warmth is experienced. Some, however, especially patients over 30, have

to repeat the exercises two or three times on the first day in order to keep themselves free from pain. After continuing the treatment for six to twelve months, many are able to leave it off altogether, provided they are not engaged in sedentary occupations.

Table of Exercises*

1. *Floor Polishing*.—Kneel on "all fours." Swing right arm, with elbow stiff, through a semicircle, as if polishing the floor, reaching as far forward and as far back as possible. Repeat swing ten times with each arm.

2. (a) *Bending*.—Stand with feet apart. Stretch arms above head, bend forward and touch ground with knees straight. Return to first position. Repeat slowly eight times.

(b) *Twisting*.—Stand with feet apart. Stretch arms to side on level with shoulders. Twist trunk round until right arm points directly backwards. Twist again until left arm points directly backwards. Repeat vigorously ten times.

(c) *Swaying*.—Stand with feet apart. Stretch arms above head. Sway body and arms to right, then left. Repeat slowly ten times.

3. "*Rowing*."—Sit on floor with knees straight and feet pressed against wall. Lean forward and touch wall with knuckles, allowing knees to bend slightly. Repeat rhythmically twenty times.

4. *Right to Left and Left to Right*.—Stand with feet apart. Swing right arm up as far as possible. Bend down, bringing right arm over and touch left foot. Repeat six times. The same with the left arm and right foot.

5. *Floor Patting*.—Kneel, sitting back on heels. Twist body and tap floor with both hands four times on left side. Kneel upright. Twist body and repeat tapping on right side. Repeat eight times each side.

6. *Bean Picking*.—Throw twenty small objects, such as beans, on the floor. Pick up one at a time and place on a shelf above the head, using hands alternately. Do it as quickly as possible.

I have found the printed sheets very useful. They save much time in the consulting room, and the patient is pleased to have definite instructions. Incidentally the exercises help to regulate the action of the bowels. Many patients, for this purpose only, or for the sense of well-being they promote, continue the exercises daily throughout the year.

A considerable number of patients have no pain, but suffer from nausea or vomiting, and refrain from food during the first day of the period. To them I give the same treatment and teaching as that already prescribed, assuring them that the vomiting will not recur if the meals are taken as usual and the exercises are done as directed. In addition, however, for these cases I usually prescribe a sedative to be taken on the day preceding and for the first two days of the period.

BATHS

Most patients are still under the impression that it is unsafe to take a bath during the period, so they are told that, in spite of old prejudices, baths are not only harmless but beneficial. The complete daily wash is a necessary hygienic measure, but immersion in a warm bath at night is not only salutary, but checks or helps to prevent the onset of aching and discomfort. There is no harm in the continuation of the cold morning bath or cold sponge during the period. For women subject to severe dysmenorrhoea, who are nervous or otherwise unfit for muscular exertion, immersion of the whole body in a hot bath (100° F.) for ten to fifteen minutes just as the period begins is a good prophylactic against pain, and will often relieve a patient already in pain. Its effect, being quicker, is more striking than that of exercise, but it has relative disadvantages in that it must be followed by rest in bed for at least an hour, and, unless the patient can keep thoroughly warm afterwards, preferably by muscular effort, the pain is apt to return.

I have never understood the rationale of the sitz-bath as a cure for dysmenorrhoea, nor have I heard of any real

* Printed sheets can be obtained from H. K. Lewis, and Co., Ltd., 136, Gower Street, W.C.1.

benefit derived from it. It strikes me as a useless and chilling performance. The universal hot-water bottle, though comforting to the patient, must act merely as a counter-irritant, and abdomens are sometimes scarred by its use in cases of extreme pain.

DRUGS

For drugs I have little use in the treatment of dysmenorrhoea, and since prescribing the remedial exercises in printed form I have been spared the reproachful look of disappointment from the patient when told that there was no prescription to take away. There are, however, a relatively few cases in which a nerve sedative or analgesic is useful while patients are learning to trust themselves to the new practices advised. I generally prescribe ammonol, 5 to 10 grains, according to the case, thrice daily for three consecutive days, beginning with the day preceding the period, if possible. The tablets are, however, usually discarded before the third month. I never prescribe glandular treatment for dysmenorrhoea itself, but sometimes find it indicated for other symptoms in the same patient.

It is sometimes necessary to correct the prevailing impression that aperients are contraindicated during the period, and to insist that a constipated state must not be allowed. During menstruation the majority of women, however, experience a freer action of the bowels than usual. The exercises have a regulating effect for either condition. It cannot be too often repeated that alcohol and morphine, which are still prescribed as a last resource for dysmenorrhoea by some practitioners, should be absolutely condemned for use in a symptom occurring early in life and liable to recur monthly for many years, especially as their action is generally ineffectual. I presume that the success of the small dose of alcohol is due to its action as a vasodilator and cardiac stimulant. The hot bath acts in the same way and more rapidly. For the analgesic effect of the larger doses less palatable drugs can be substituted. Morphine is also an example of a remedy which is worse than the disease.

Besides its other advantages I would point out that a printed table of exercises is a more economical method of prescribing than monthly doses of drugs for dysmenorrhoea, and that it also serves in many cases instead of aperients, and costs less.

RESULTS OF TREATMENT

There are still some members of the medical profession, as well as the laity, who see danger in the treatment of dysmenorrhoea by exercises and baths. In answer to these I can state that, in my work among schoolgirls and training college students, I have personally noted the effect of the practice of continuing games and other activities throughout the period on 2,300 girls. Six only of these have reported that games at the period did not suit them; but in not one case out of the whole number have I heard of any ill effect noted either at the time or subsequently.

In nearly twenty years of practice I have had just over 400 cases of dysmenorrhoea of varying degrees of severity which have been cured or relieved by treatment with baths and exercise. Fourteen patients have complained that they felt worse after the exercise, though no increase of disability persisted. But since three of the severest of these cases have, through force of circumstances, ultimately cured themselves by muscular exertion, I have ceased to be discouraged by the failures. Very successful results of the treatment of dysmenorrhoea by special exercises in cases free from pathological findings among college women in America are quoted in an interesting article by Drs. Margaret Bell and Eloise Parsons.¹

To those who see risk in the remedial exercises I would ask what alternative treatment they would recommend.

Rest and drugs must be regarded as merely palliative. Dilatation of the cervix is the only time-honoured radical cure. It sometimes has to be repeated, and the risks involved are surely much greater. Of diathermy I have little experience, but I recommend it to patients unwilling to adopt the usual treatment.

It is, of course, important to exclude appendix trouble before advising strenuous exercise, but caution in this respect is just as necessary during the inter-menstrual period, and applies equally to both sexes. I have not yet found a case of appendicitis in which abdominal pains occurred *only* during the period, but, owing to the greater impression made by the dysmenorrhoeic pain, careful inquiry is sometimes necessary to elicit accurate information with regard to abdominal pain at other times.

For severe dysmenorrhoea the set exercises are generally necessary as a substitute for, or in addition to, any outdoor games or sports. They can be more easily regulated in time and amount to suit the needs of the patient.

WOMEN IN INDUSTRY

It is the freedom from risk in such treatment which has prompted Lady Barrett and myself, in response to requests from social workers, to publish a leaflet entitled *Advice to Young Women Concerning the Monthly Period*, in which the hygienic measures described above are stated as simply and briefly as possible, and the table of exercises is appended.

The advice given is on the same lines as that contained in the leaflet for schoolgirls issued by the council of the Medical Officers of Schools Association.

The main purpose of the leaflet is for distribution among healthy girls and women engaged in industrial occupations, with the object of reducing the incidence of disability during the period. It seems that dysmenorrhoea, severe enough totally to incapacitate workers, is not common, but a considerable proportion of women, especially those with sedentary and standing occupations, suffer minor pains and discomfort every month. With this unnecessary suffering there must inevitably be an unnecessary, though unrecorded, diminution in the output of work.

This leaflet can also be obtained from Messrs. Lewis and Co. I am finding it helpful, too, for private patients, as it ensures a fuller understanding of the instructions given in the consulting room.

REFERENCE

¹ Bell and Parsons: *Med. Women's Journ. (U.S.A.)*, xxxviii, No. 2, 31.

BONE GRAFT AND FUSION OPERATIONS FOR THE SPINE*

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Operations for spinal fixation in adult cases of tuberculosis are, in the absence of certain contraindications, widely accepted as a useful adjunct to treatment. That there is no such unanimity as to the precise method of attaining fixation is shown by the fact that from time to time new methods, or modifications of older methods, are invented and described. It is because the relative merits of such methods have received little attention in our literature that this paper has been written. Its object is to consider some of these methods and to arrive at some conclusions as to which of them, from simplicity and wide applicability, is the best. It is recognized that all these operations have their origin in the methods

* From a paper read at a meeting of the British Orthopaedic Association, in Newcastle-upon-Tyne, October 30th, 1931.