MEDICAL PRACTICE

Gynaecology in General Practice

The Menopause

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Menstruation stops most commonly about the age of 50, but the endocrine function of the ovary begins to wane several years before this and ceases finally sometime afterwards. This climacteric phase the patient usually calls the menopause, though strictly the latter defines the cessation of menstruation. In the "change of life" there may be various unpleasant symptoms, which in about half the women are sufficient to require treatment. As the symptoms are numerous and diverse some doctors fail to assess the need for relief, feeling secure in the knowledge that these complaints are transitory and will eventually abate. In Roman times life expectancy was about 23 years and by the 14th century had risen to 33 years. Even by the turn of this century it was only 48; so that a population with many postmenopausal women who are oestrogen deficient is a fairly recent problem. During the menopause there may be worrying disturbances of menstrual habit and menorrhagia. Hot flushes and palpitations are particularly common. Later, changes in the genital tract may lead to atrophic vaginitis and frequency and urgency of micturition. Emotional, sexual, and domestic upsets are common at this time, and many women become depressed. Coronary artery disease is more likely and osteoporosis may ensue.

Changes in Menstruation

Usually normal periods become more and more spaced out, coming at intervals of two, three, or four months, though a regular cycle can stop abruptly. If there is dysfunctional uterine bleeding of the menopause with irregular, heavy, or

prolonged bleeding the patient may worry about cancer and often needs a curettage to exclude an endometrial carcinoma and as a therapeutic measure. Once the presence of a carcinoma, submucosal fibroids, or polyps has been ruled out the doctor may prescribe the appropriate endocrine treatment, but it is unwise to spend weeks or months experimenting with hormones without a preliminary curettage. By no means all patients, however, need this investigation. If the disturbance is not great the woman should be asked to keep an accurate menstrual chart for three or four months in the hope that cure will occur spontaneously. Progestogens, such as norethisterone 5-10 mg daily, should regulate the flow if given cyclically, or a predominantly progestogenic contraceptive pill such as Gynovlar, Anovlar, and Lyndiol may be tried. It is usually more convenient for both the practitioner and the patient if courses of 21 days are prescribed; but alternatively the same tablets may be given 10 days premenstrually. If these hormones fail hysterectomy may be necessary.

Vasomotor Symptoms

The ovarian oestrogens acting through the hypothalamus normally tend to inhibit the release of gonadotrophins by the anterior pituitary. As oestrogen production by the ovary declines this inhibiting effect is lost, resulting in an increased secretion of gonadotrophins. Hot flushes are believed to be due to this temporary pituitary overactivity. They last only for a limited time and do not continue throughout a woman's remaining postmenopausal span. Hot flushes are a manifestation of vasomotor instability. They may be occasional and momentary or frequent and persistent and accompanied by drenching sweats, especially at night. Treatment requires common sense, sympathy, and patience, but alone these are insufficient for most women. Sedatives and tranquillizers have only a limited place but oestrogens are nearly always specific in their relief. The nihilistic approach in which all treatment with oestrogens is avoided because of the physiological nature

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of the climacteric has recently been strengthened because of the discovery of the increased risk of thrombosis with oestrogens in oral contraceptives. Nevertheless, hot flushes can be controlled with a much smaller dose of oestrogen than was incriminated in the reports of this complication.

Oestrogen Treatment

In the past it was emphasized that as oestrogen production is cyclical oestrogen therapy should be in interrupted courses. It was also suggested that the dose should be insufficient to abolish all symptoms and restricted to a few months; but the urge to withhold or curtail hormones in the postmenopausal patient is probably mistaken. Large doses can, of course, lead to endometrial hyperplasia, and even carcinoma, and there is the risk of venous thrombosis. Oestrogens should not be given to women who have had cancer of the endometrium or breast. If the dose is controlled fairly carefully, as with antithyroid drugs or insulin, there is little risk but much to be gained.

A convenient dose with which to begin treatment is ethinyloestradiol, 0.01 mg thrice daily for three weeks. Depending on the response this can be reduced to 0.01 mg twice daily for three weeks, when it may be possible to give 0.01 mg daily. This is continued for a variable period of time, perhaps 6-8 weeks, when an attempt should be made to reduce the dose still further. Some patients need 0.01 mg five or six times a week, but for others three times a week will suffice. If necessary this can be continued for two or three years or longer. Individual patients may find that the dose required is quite critical. Stilboestrol 0.2 mg may be used as an equivalent of ethinyloestradiol 0.01 mg. Sometimes synthetic oestrogens cause nausea and vomiting and occasionally headache and mastalgia. Conjugated equine oestrogens or Premarin—the principal ingredient of which is probably oestrone sulphate—has fewer side effects and may be tried; the dose is 0.625 mg daily.

Chlorotrianisene is said to give a prolonged oestrogen effect because it is stored in the body fat, from which it is slowly released over 2-3 months; one 24-mg capsule is given daily for 30 days. Nevertheless, its action may be rapid and effective and the patient soon has a feeling of well-being again.

Irregular and postmenopausal bleeding is, of course, a well-known side effect of oestrogen therapy. By gently reducing the dose this side effect can usually be avoided. Certainly the fear of producing withdrawal bleeding should not lead the doctor to deny oestrogens to a patient with troublesome flushes, even if uncertainty about a possible endometrial carcinoma may entail an unnecessary curettage. Implants of oestrogen are effective in controlling vasomotor symptoms. Nevertheless, because of their prolonged action they may cause uterine bleeding and should be avoided except in women whose uterus has been removed.

Mixed Hormone Therapy

Tablets of oestrogen and androgen combined have sometimes been advocated for relieving menopausal symptoms. The androgen, it was thought, prevents undue stimulation of the breasts and endometrium and has a general anabolic effect. In practice, however, mixed therapy may produce side effects from both hormones. Undoubtedly testosterone has a stimulatory effect in postmenopausal women. For example, after removal of the uterus and both ovaries seven years ago a 42-year-old patient of mine developed distressing hot flushes, and she was given injections of a depot preparation containing 90 mg testosterone oenanthate and 4 mg oestradiol valerate every four to eight weeks. Since then she has said that following

each injection life is exciting; she is never depressed, the hot flushes disappear, and her libido increases considerably.

With the possible exception of norethisterone, which is partly metabolized to an oestrogen, progestogens do not relieve climacteric symptoms. Even so, they may be used to counteract some of the side effects of oestrogens—for example, endometrial hyperplasia. Unfortunately, if the contraceptive pill is used the oestrogen content is usually much more than is necessary for controlling the symptoms. Norethisterone has been advocated in patients who have hot flushes after total hysterectomy and bilateral salpingo-oophorectomy for endometriosis.

Changes in Urinary and Genital Tracts

Though the vaginal epithelium and the tissues supporting the uterus and the vagina are all oestrogen-dependent, symptoms from an atrophic vagina or a prolapsed uterus are unusual until two to three years after the periods have stopped. The treatment of prolapse is, of course, surgical but atrophic vaginitis will respond to oestrogens. This hormone is absorbed through the vaginal epithelium and Dioestrol cream and Oestroform (oestrone) pessaries can be used. Nevertheless, I find that the response is usually quicker and more reliable with oral oestrogens—for example, with ethinyloestradiol 0.05 mg twice daily for one week gradually reducing over a month to 0.01 mg daily. The urethra and trigone of the bladder may be similarly affected after the menopause, and recurrent urinary symptoms sometimes improve when oestrogen deficiency is corrected.

Psychogenic Disturbances

Various emotional upsets, including anxiety, depression, insomnia, and lack of concentration are encountered at the menopause and some women pass through a phase when they weep easily or are irritable. Social factors as much as altered hormone levels may bring about these symptoms; between 40 and 50 a woman is likely to lose her father and later her mother; children may leave home to marry. If her husband is a failure she has to face this realization; if he is successful he is frequently away from home, so that she may feel both semiredundant and disappointed. Loss of libido may be a presenting feature, though it often increases as the fear of pregnancy recedes. The contraceptive pill not only gives the menopausal patient the absolute protection from pregnancy which she is seeking but provides a useful though possibly excessive hormone replacement. Most psychiatrists agree that oestrogens are valuable in emotional disturbances at this time. Some enthusiasts go further and find that women who have retired into a middle-aged shell seem to blossom and become interested in new activities and hobbies or undertake new jobs. The hair and nails may improve and facial wrinkles disappear. Nevertheless, depression may be a problem with the pill, though it may respond to treatment with pyridoxine tablets. The doctor should spend some time in investigating family problems; under-employment may be solved by a part-time job, which will increase social contacts and provide extra money. Careful examination and often a second opinion may reassure the patient that she does not have cancer. A spell of insomnia will be helped with hypnotics, which the patient should take without feeling guilty. For the mildly depressed patient diazepam 2.5 mg thrice daily is suitable, though psychiatric help should not be delayed if she improves only slowly.

Up to the age of 40 coronary artery disease is at least 10 times more common in men than women. After the menopause the difference lessens until at 75 the sex incidence is

equal. Women who reach the menopause prematurely—particularly those under 40—show a seven-fold increase in the incidence of myocardial ischaemia compared with women who are still menstruating. Premenopausal women have significantly lower total serum lipoproteins and cholesterol levels than men of the same age or women who have reached the menopause. Administered oestrogens will decrease the levels of cholesterol and lipoproteins and most cardiologists regard it as sensible to give oestrogens to women with a premature

menopause. There is at present, however, little reliable evidence that oestrogens given to women in their 50s and 60s will lower the incidence of coronary artery disease. There is also little evidence that oestrogens can prevent the development of osteoporosis in women.

If oestrogens are given carefully and sensibly they can alleviate much discomfort at the time of the menopause. Nevertheless, their use must be part of a comprehensive clinical approach, and they are not a panacea for all ills.

Clinical Problems

Classification of the Arthropathies*

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There are a large number of degenerative and inflammatory conditions which affect bones and joints. In a review in 1969 I listed 179,¹ but my colleagues and I have thought of several more since. Though a handful of conditions cause most attendances at rheumatism clinics many patients with arthropathies due to many other much rarer conditions go to almost every department of a general hospital every day, and with overseas travel so readily available every general practitioner can encounter all or any of the rarer arthropathies from any part of the world at any time. Current classifications of the arthropathies do not allow for this. In Copeman's current *Textbook of the Rheumatic Diseases*² the editor gives the proposed classification of the International League against Rheumatism and a nomenclature and classification tentatively adopted by the American Rheumatism Association. The latter is the more comprehensive and is based, as far as is possible, on aetiological factors. It seems timely, however, to look again at this classification, for many conditions have now been described which do not appear in any of these classifications. I therefore suggest the following, which, though fairly comprehensive, cannot claim to be completely so.

Congenital

Congenital conditions may cause abnormalities of joints by contractions (arthrogryphosis multiplex congenita, Hurler's syndrome); trauma from increased laxity and hyperextensibility of joints (hypermobility syndrome, Ehlers-Danlos syndrome, Morquio-Brailsford osteochondrodystrophy); or from failure to appreciate pain (congenital indifference to pain, familial dysautonomia). In some cases congenital abnormalities lead to premature osteoarthritis (osteodysplasty, hypermobility syndrome, dysplasia epiphysialis multiplex). In others unnatural fragility of tissues predispose to joint effusions, contractions, and subsequent deformities (Ehlers-Danlos syndrome,

osteogenesis imperfecta). In most cases mental development is not significantly affected—Hurler's syndrome and some cases of arthrogryphosis being exceptions to this rule. Apart from the risk of crippling and deformity the general health is usually unimpaired unless there are associated congenital abnormalities of vital structures, as there may be in some cases of Ehlers-Danlos syndrome. There may well be five separate entities under the latter heading, and there seem to be several different subgroups also of the Morquio-Brailsford osteochondrodystrophy.

Degenerative, Traumatic, and Occupational

All people suffer the changes of ageing cartilage and bone, but only in some do symptoms warrant the diagnosis of osteoarthritis. This, in turn, depends on pain and complaint threshold, one man's ache being another man's agony. While women have the reputation of being more stoical than men hospital admissions and outpatient attendances hardly bear this out; women pre-ominate in our experience in both. As a student said in the rheumatism clinic, it seems that women have the symptoms here and men the physical signs. Generalized osteoarthritis is, however, more common in women than in men. Traumatic and occupational syndromes are legion, ranging from base-fiddler's thumb to miner's knee and porter's neck, the last due to the repeated trauma of fish baskets being piled high on the head.

Dietetic

Vitamin deficiency is today rare in this country but for that very reason is more likely to be missed. The danger of missing rickets lies in the resultant deformities, particularly of the pelvis, in girls. Kashin-Beck's disease is a condition noted in the valleys of Siberia and thought to be due to fusarial infection of flour leading to cartilage degeneration and premature osteoarthrotic changes.

Endocrine

Acromegaly, myxoedema, and hyperparathyroidism are all associated on occasion with an arthropathy. Indeed, in the

*Based on a postgraduate lecture given at the Institute of Orthopaedics, Great Portland Street, London W.1. on 30 September 1970.