Gynaecology in General Practice

Backache—II

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Dysmenorrhoea

Pain associated with the periods may arise from the uterus or from some nearby organ. The former leads to spasmodic dysmenorrhoea, and the latter to the congestive variety. Often the first dates from early days of menstruation (primary), while the second comes later in life, indicating the presence of an acquired lesion such as infection or endometriosis. Some 10% of women under 25 have sufficient menstrual pain to incapacitate them for some hours each month, while a further 40% of them have some discomfort. Backache may be the underlying symptom, but the major ache is hypogastric and distributed over the area of the first lumbar segmental nerves, with occasional irradiation down the front of the thigh. Possibly the backache originates from the cervix while the hypogastric pain comes from the body of the uterus. The pain in the back is worse if there is a polyp or if much blood clot has to be expelled. The unusual syndrome of unilateral backache with spasmodic dysmenorrhoea may indicate a congenital abnormality of the uterus (for example, underdevelopment of one horn of a bicornuate uterus).

Often some orthopaedic problem is associated with dysmenorrhoea. After minor trauma a ligamentous or muscular strain may occur and this may give rise to symptoms in each premenstrual phase because of the softening of the ligaments caused by the hormonal changes. A careful history and thorough examination will help to localize it. Beyond this, most patients with dysmenorrhoea have few relevant abnormal physical signs.

Successful treatment is difficult and concerns the whole patient, her emotions and her way of life. For some patients additional treatment with analgesics, antispasmodics, and suppression of ovulation may be needed, and rarely dilatation of the cervix, paracervical block, and presacral neurectomy. If sacroiliac or muscular strain is present, rest, local heat, and good external support may all help.

Pelvic Infection

Backache is associated with infection in two principal sites in the pelvis—the cervix and the adnexa. Often infection of one is associated with the other, both commonly after pregnancy. When acutely inflamed the cervix is usually part of a generalized inflammation of the genital tract—for example, puerperal sepsis or gonorrhoea. Backache of cervical origin will be accompanied by symptoms arising from other sites in

the pelvis and so be overshadowed by the more severe problems of endometritis, salpingitis, and peritonitis.

Chronic infection is common, especially after the trauma of delivery or the passage of an instrument. Lacerations may be accompanied by inflammation, with eversion of the edges of the cervical canal, causing an “erosion” of the ectocervix. Backache with dyspareunia occurs and is usually worse at the time of menstruation. Concomitant trigonitis is not unusual and this leads to the symptoms of lower urinary tract irritation (frequency of micturition and dysuria). The diagnosis of a cervical erosion is made visually, using a speculum, while that of chronic cervicitis needs a more thorough pelvic examination.

Treatment is aimed at destroying the chronically inflamed tissues and allowing overgrowth of healthy cells. Cauterization, using heat or chemicals, can be used on the conscious patient, provided penetration is not deep. Nevertheless, if inflammation is severe enough to cause backache often deeper cauterization or even conization is needed, and for these procedures the patient requires an anaesthetic. Cryosurgery with liquid gases at -50° to -60°C is a useful way of dealing with this problem in an outpatient. The nerve endings of the cervix are anaesthetized by the intense cold before the tissue is destroyed, and so the operation is painless. It destroys a well-demarcated infected area, and so allows healing with healthy tissue.

Patients with chronic salpingitis often present with low backache in the sacral area, accompanied by vague lower abdominal pain and a chronic vaginal discharge. Dyspareunia, heavy periods, and menstrual irregularities are common. Usually a history of previous, and may be recurrent, exacerbations of acute infection can be obtained. Vaginal examination shows the thickened tender adnexa (usually the condition is bilateral), and sometimes a hydrosalpinx or pyosalpinx is felt. This is fixed and tense and may be easily misinterpreted as a solid tumour.

Satisfactory treatment is as difficult as with any chronic inflammatory processes deep in the body. Heat, antibiotics, and the excision of pus-laden tissue may be used to treat inflammation in the pelvis as elsewhere, but the principle of conserving gonadal tissue limits the extent of the procedures applicable to the young woman. The non-operative part of the therapy depends on a long-term management shared in co-operation between the specialist unit and the general practitioner.

Malpositions of the Uterus

The uterus has a range of movement, and about a fifth of patients examined are found to have retroverted uteruses. Usually this causes no trouble, but sometimes after pregnancy, or if an ovary is trapped in the pouch of Douglas, symptoms may occur—as a dull, heavy sensation in the midsacral region. Vaginal examination reveals the situation. If the uterus is mobile the position can be corrected by “basculatation,” when the cupped manipulating hand cradles the uterus and rocks it forwards. A Hodge pessary, a rounded

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rectangle of polyethylene, is then used to hold the organ in the anteverted position and the symptoms should be relieved. If the uterus is fixed in retroversion by a disease such as infection or endometriosis the primary condition should also be treated. Often prolapse of the uterus or vaginal walls is associated with sacral backache owing to stretching of the pelvic cellular tissues. The symptom is improved when the prolapse is corrected surgically.

Pelvic Masses

The pelvis is one of the silent areas of the body and tumours may become quite large before producing symptoms. Stretching of the pelvic tissues by the tumour may cause low sacral backache. Most ovarian and uterine masses are mobile and slip up into the abdomen when they enlarge; if they are held in the pelvis by infiltration or adhesions they may become impacted and further growth causes pressure symptoms. Fibroids do not often do this, though ovarian tumours may, especially the malignant ones. Management lies in diagnosis and surgical correction.

Endometriosis and Ovarian Blood Cysts

Ectopic endometrium is found in many parts of the pelvis, including the rectovaginal septum and the uterosacral ligaments. This endometrium is still influenced by hormonal changes, and produces blood which cannot escape but irritates the surrounding tissues. This irritation is felt as sacral backache, sometimes referred to one side of the mid-line. Blood cysts of the ovary (not all of which are due to endometriosis) may produce the same symptoms by stretching the ovarian ligament or outer layers of the ovary. The backache may be constant but is usually made worse by menstruation and may be accompanied by rectal pain; menorrhagia and dyspareunia are common.

On examination, the immobility and fixity of the pelvic organs, often with tenderness of the uterosacral area, are features which can be better felt per rectum than per vaginam. Localized masses may be felt in the ligaments or ovaries, but the patient's tenderness may prevent this. Treatment comes after the diagnosis has been confirmed by examination under anaesthesia or at laparotomy. Either cyclical hormone therapy

or surgery may be required in the individual case—the younger the woman, the more difficult being the cure.

Pregnancy and its After Effects

During pregnancy the enlarging abdomen causes an increasing lumbar lordosis, the shoulders being braced back like the drummer in a military band. The "pride of pregnancy" posture is a compensation by the body for the pushing forwards of the centre of gravity. This, together with the increase in body weight, puts an increased strain on the back joints, and the ligaments which guard them. Raised cortisol levels at this time allow these ligaments to lengthen, and this contributes to the slacker bracing of the lumbar, sacral, and sacroiliac joints. Many backaches start in later pregnancy and, unless corrected, go on after the birth. All general practitioners know of the extra work load of the increased number of stooping jobs that must be done by the mother of a newborn child. Not only do these prevent any minor trauma from healing, but the ligaments softened in pregnancy may remain weak for months after delivery.

Treatment is not dramatic and so is hard to enforce. Patients must be told in detail what to do for definite instructions are more likely to be followed than generalizations. Bed rest on a firm mattress is the start of the treatment. Good support for the lower back with a well fitting girdle is important. Exercises—both in pregnancy and, even more useful, postnatally—may help restore the muscles that guard the joints. All this is sound therapy but it must be put over firmly to the patient, who is often preoccupied with her family problems. Even so, minor backaches stopped at this stage may prevent years of chronic symptoms.

Conclusions

Backache is a symptom of a variety of diseases and the intrapelvic ones are only a small part of the total problem. Many women's back pains start during pregnancy and must be treated early to prevent long-term conditions. The general practitioner must differentiate the few gynaecological causes from the majority of orthopaedic and psychiatric backaches so that his patient can have specific treatment when it is required.

Today's Drugs

With the help of expert contributors we print in this section notes on drugs in common use.

Treatment of Myasthenia—I

Myasthenia is a syndrome of increased fatigability in striated muscle. Though abnormal fatigability may occur with many lesions of the central nervous system involving upper or lower motor neurons (for example, hemiplegia or progressive muscular atrophy) and with lesions of muscle (for example, dermatomyositis), the term myasthenia is usually restricted to fatigability due to a functional disturbance at the neuromuscular junction.

In 1936 Dale *et al.*¹ showed that the arrival of impulses at motor nerve endings led to the release of acetylcholine, which then activated the muscle fibre. In current jargon acetylcholine was identified as the "transmitter" at the neuromuscular junction. Four major hypotheses have been proposed to explain the pathologically increased fatigability of myasthenic

muscle: firstly, impaired synthesis or storage of acetylcholine; secondly, a disturbance in the release of acetylcholine at the nerve ending; thirdly, the presence of an anti-acetylcholine substance in the extracellular fluid; and fourthly, a reduction in the sensitivity of the acetylcholine receptors on the end-plate membrane of the muscle fibre (see Fig. 1).

After various studies²⁻⁴ it now appears that the first two theories are both correct. Furthermore, each of these two disturbances results in a distinct syndrome for which there is a specific treatment. A defect in synthesis or storage of acetylcholine seems to occur in myasthenia gravis, while impaired release of acetylcholine is responsible for the myasthenic syndrome of Eaton and Lambert.⁵ The identification of these two disturbances has provided rational explanations for current therapeutic practice, much of which developed from the application of simple pharmacological principles over 30 years ago.