Duodenal ulcers which do not heal rapidly

Between a quarter and a third of duodenal ulcers in patients in Britain heal during one month's treatment with placebo.¹ The rate of healing is increased to between just under two thirds and four fifths after treatment for one month with many drugs.¹ Such rates are far from satisfactory, since ulcers which have not completely healed either remain a source of symptoms or soon become clinically active again.² In practice, either healing has to be confirmed endoscopically after treatment for four weeks or, if that facility is not available, all patients must be treated for eight weeks, since many reports have shown that two months' treatment with, for example, cimetidine¹ or ranitidine³ heals more than 90% of duodenal ulcers.

That still leaves a few patients (less than 10%) with active duodenal ulcers after treatment for two months. Sometimes the therapeutic "resistance" is seen during the first course of treatment, but in other patients previous courses of treatment may have been normally successful. Reasons that have been proposed for the resistance to healing include the size and shape of the ulcers^{4,5}; chronicity⁶; duodenal scarring or stenosis⁶; severity of duodenitis⁷; abnormal drug pharmacokinetics⁸; the extent of the gastric secretory response to stimulants⁹; failure of the drug to control acid secretion⁹; smoking^{6,10,11}; and the use of analgesics.⁴ The role of all of these factors has been supported and refuted in countless studies and the one certain conclusion is that the cause of "refractory" duodenal ulceration has not yet been defined.

These refractory ulcers often give rise to symptoms, so what therapeutic options are available for a patient whose ulcer remains unhealed after two months of treatment? Firstly, the same treatment may be continued and some ulcers will heal in due course.⁷ Next, the dosage of the original drug may be increased, because it seems (not surprisingly) that some patients require larger than average doses. This type of approach heals not only many duodenal ulcers⁷ but also the ulcers of patients with gastrinomas, who may need up to 10 times the standard dose of cimetidine.¹² The third therapeutic option is to change the antiulcer drug: both ranitidine and colloidal bismuth subcitrate have been reported to heal ulcers resistant to cimetidine.^{3,13,14}

Unfortunately, many of the reports of the successful treatment of refractory ulcers are unsatisfactory and cannot be used as general guides to treatment because they have been based on open trials in which patients have acted as their own historical controls. Formal randomised controlled trials, in which half of the patients continue the original treatment, have proved difficult to organise because so few duodenal ulcers remain unhealed after two months of treatment. For example, in our population, about 97% of the ulcers heal during two months of treatment, so that we need to start with 1000 patients if we are to study two trial groups with 15 patients in each.

Ulcers resistant to drugs may also be treated surgically. No comparisons are available of continued medical treatment and operation. The open studies suggest that resistant ulcers heal normally after operation,^{15,16} although some recent reports have noted—ominously—that after vagotomy without, or with, drainage the ulcers recur in about half of the patients.^{7,17}

What practical advice can be given? The evidence suggests that when attempting to heal duodenal ulcers it is safest to

treat for two months unless earlier endoscopic re-examination confirms healing of the ulcer. If the ulcer has not healed the dose of cimetidine or ranitidine should be doubled or a different drug should be tried. Operative treatment should be avoided, if possible, because the patient will probably require major gastric surgery (such as vagotomy plus antrectomy) with its attendant mortality and morbidity. So many new antiulcer drugs are being studied at present that another one can always be tried in the hope that it will prove suitable; the persistently refractory ulcer is so rare that no generalisations apply.

K G WORMSLEY

Consultant Physician,
Department of Therapeutics,
University of Dundee,
Ninewells Hospital,
Dundee DD1 9SY

- 1 Wormsley KG. Short-term treatment of duodenal ulceration. In: Baron JH, ed. *Cimetidine in the '80s*. Edinburgh: Churchill Livingstone, 1981:3-8.
- 2 Paoluzzi P, Ricotta G, Ripoli F, Proietti F, Carratu R, Torsoli A. Incomplete and completely healed duodenal ulcers outcome in maintenance treatment: a double blind controlled study. *Gastroenterology* 1982;82:1146.
- 3 Boyd EJS, Wilson JA, Wormsley KG. Review of ulcer treatment: role of ranitidine. In: Hirschowitz BI, Sperry JG, eds. *Receptors and the upper GI tract*. New York: Advanced Therapeutics Communications Inc, 1983:292-303.
- 4 Lam SK, Koo J. Accurate prediction of duodenal-ulcer healing rate by discriminant analysis. *Gastroenterology* 1983;85:403-12.
- 5 Nava G, Pippa G, Ballanti R, Papi C, Nava G. Role of ulcer morphology in evaluating prognosis and therapeutic outcome in duodenal ulcer. *Scand J Gastroenterol* 1979;14(suppl 54):41-3.
- 6 Massarat S, Eisenmann A. Factors affecting the healing rate of duodenal and pyloric ulcers with low-dose antacid treatment. *Gut* 1981;22:97-102.
- 7 Bardhan KD. Refractory duodenal ulcer. *Gut* 1984;25:711-7.
- 8 Somogyi A, Gugler R. Clinical pharmacokinetics of cimetidine. *Clin Pharmacokinet* 1983;8:463-95.
- 9 Gledhill T, Hunt RH. Studies of intragastric acidity and nocturnal acid secretion in cimetidine nonresponders. *Gastroenterology* 1982;82:1068.
- 10 Gugler R, Rohner HG, Kratochvil P, Brandstätter G, Schmitz H. Effect of smoking on duodenal ulcer healing with cimetidine and omeprazole. *Gut* 1982;23:866-71.
- 11 Korman MG, Hansky J, Merrett AC, Schmidt GT. Ranitidine in duodenal ulcer. Incidence of healing and effect of smoking. *Dig Dis Sci* 1982;27:712-5.
- 12 Jensen RT. Basis for failure of cimetidine in patients with Zollinger-Ellison syndrome. *Dig Dis Sci* 1984;29:363-6.
- 13 Brunner G, Losgen H, Harke U. Ranitidine in the treatment of cimetidine-resistant ulcerations of the upper intestinal tract. In: Misiewicz JJ, Wormsley KG, eds. *The clinical use of ranitidine*. Oxford: The Medicine Publishing Foundation, 1982:254-6.
- 14 Lam SK, Lee NW, Koo J, Hui WM, Fok KH, Ng M. Randomised crossover trial of tripotassium dicitrate bismuthate versus high dose cimetidine for duodenal ulcers resistant to standard dose of cimetidine. *Gut* 1984;25:703-6.
- 15 Blackett RL, Johnston D. Cimetidine and duodenal ulcer: can surgery cure the failures? *Gut* 1984;25:443-4.
- 16 Pickard WR, MacKay C. Early results of surgery in patients considered cimetidine failures. *Br J Surg* 1984;71:67-8.
- 17 Hansen JH, Knigge U. Failure of proximal gastric vagotomy for duodenal ulcer resistant to cimetidine. *Lancet* 1984;ii:84-6.

Contraception and the mentally handicapped

Contraception in the mentally handicapped is not often discussed, and when it is there is usually a charged atmosphere, and half truths and absolute myths are repeated. Little wonder, then, that mentally handicapped people, their parents, and relatives are often made more anxious and less effective in attempting to cope.

The effective reproductive capacity of the feeble minded, with an intelligence quotient below 70, is very limited, and below 50 it is in practical terms negligible.¹ Possibly, however, the size of the problem may change with the changing pattern of care of the mentally handicapped; with more emphasis on community care in a better physical environment there may be better opportunities for handicapped people to express their sexual feelings.

A few mildly mentally handicapped people marry, and often they themselves do not seek help about contraception, so that sometimes unwanted pregnancies occur. Neverthe-

less, no accidental pregnancies occurred in a survey of 45 such couples by Craft and Craft, supporting the view that, with help and advice, mentally handicapped people are more capable of limiting their fertility than was previously thought.²

Single young men or women with mild mental handicap rarely approach anyone for advice on contraception—it is their parents, relatives, or teachers (if they live at home) or members of staff in hostels or hospitals who seek advice. Such contacts usually have some knowledge of the sexual interest of the mentally handicapped people in their care—so that when they ask for medical help they should be taken seriously and advised appropriately, given the needs of the individual concerned.

Occasionally, however, and particularly in relation to severely mentally handicapped young people, parents, relatives, or teachers may be unduly anxious or insecure because of their own anxieties and attitudes towards sexuality. Again, a professional assessment should include both the person seeking advice and also the mentally handicapped person supposed to need help.

Doctors are often asked whether mentally handicapped people can make "suitable" parents. Among the factors that need to be taken into account are whether one or both parents are mentally handicapped, one or both parents have additional handicaps (for example, mental illness, epilepsy, personality disorder, or physical handicaps including blindness and deafness), physical illness, financial resources, and support from relatives, neighbours, community nurses, social workers, general practitioners, and other professionals.

What is the outlook for the offspring? Reed and Reed surveyed 7778 children, finding that in 89 cases where both parents had intelligence quotients below 80 nearly two fifths of the children were retarded (though the average intelligence quotient was 74).³ When only one parent had a low intelligence quotient about a seventh of the children were retarded, and just over half had an intelligence quotient above 90. Of 7035 children with neither parent mentally handicapped, 1% were retarded.

The prognosis for 41 children born to 15 mentally retarded Swedish women with an intelligence quotient between 50 and 70 seemed poor.⁴ One child died, eight were mentally retarded, six had suspected mental retardation, and 23 needed psychiatric care. Four had been placed in foster homes at birth and 14 had to go into foster homes after neglect or abuse. Only six of the 41 were possibly well adjusted children living with the biological mother.

Most severely mentally handicapped women do not show any sexual interest, though some are biologically fertile. They may, however, be at risk from unscrupulous people (and incest is another possibility). Such women will rarely take an oral contraceptive regularly unless somebody gives it to them, and their ideal contraceptive seems to be an intrauterine device. This is certainly the case for mentally handicapped women with superimposed mental illness, behaviour disorder, or uncontrolled epilepsy. Mentally handicapped people with mental illness, such as depression, may find that the pill makes their mental state worse, although the lowering of mood, easy fatigue, and lack of initiative sometimes attributed to the progestogen may be less troublesome, or even go unnoticed, with the newer low dose preparations.⁵ Fluid retention caused by oral contraceptives may sometimes precipitate epileptic seizures, and many anticonvulsant drugs induce liver enzymes and so may reduce the efficacy of oral contraceptives.⁶

Antibiotics, too, may cause contraceptive failure,⁷ and this makes oral contraception unsuitable for those severely mentally handicapped people who are subject to recurrent infections. It is also unsatisfactory in several rare disorders in which the risk of thrombosis is raised—for example, homocystinuria.

Medroxyprogesterone acetate (Depo-Provera) is a useful option for women who cannot take the pill and for whom an intrauterine device proves unsatisfactory. Barrier methods have no relevance for the mentally handicapped.

Termination of pregnancy may sometimes be necessary in a severely mentally handicapped woman but it very rarely causes any dissent among carers or relatives. If termination of pregnancy is being considered for a woman with mild mental handicap there is more likely to be a difference of opinion among the people concerned. In these circumstances the wishes of the mentally handicapped person must be respected.

Sterilisation may sometimes be considered in women who have already given birth to some children. Again, the individual's wishes—and those of her relatives—must be taken into account. In the case of mentally retarded minors the legality of sterilisation is disputed.⁸ A clear mandate from the law would be useful, but sterilisation in these cases should be considered when everything else has failed. The operation should not be performed, however, simply because an anxious parent wants it and the law seems to permit it.⁹

The problems of sex and contraception for the mentally handicapped are discussed more than in the past but they are still widely ignored. The responsibility lies on the carers. If a mentally handicapped person shows sexual interest, he or she must be helped to enjoy sex—within the obvious limitations of availability and accessibility of a partner. A proper place should be found for two loving people to get together—and no one need despair if the sexual act does not always end in intercourse, which may not be what is desired.

Sex education and counselling are vital if couples are to enjoy reasonable sexuality, although these concepts may be difficult and sometimes almost impossible to communicate. John Bancroft has rightly pointed out that "Sexuality may provide one of the few real pleasures in the extremely limited lives of these unfortunate people. It is a particularly cruel world that denies them even that."¹⁰

DEBABRATA CHAKRABORTI

Consultant Psychiatrist in Mental Handicap,
Windsor Unit,
London Road Hospital,
King's Lynn PE30 5QD

ALISTAIR P MACDONALD

Consultant Obstetrician and Gynaecologist,
Queen Elizabeth Hospital,
King's Lynn PE30 4ET

- 1 Kirman B, Bicknell J. *Mental handicap*. Edinburgh: Churchill Livingstone, 1975.
- 2 Craft A, Craft M. *Handicapped married couples*. London: Routledge and Kegan Paul, 1979.
- 3 Reed EW, Reed SC. *Mental retardation: a family study*. Philadelphia: Saunders, 1965.
- 4 Gillberg C, Geijer-Karlsson M. Children born to mentally handicapped women: a 1-21 year follow-up study of 41 cases. *Psychol Med* 1983;13:891-4.
- 5 Murad F, Haynes RC Jr. Estrogens and progestins. In: Gilman AG, Goodman LS, Gilman A, eds. *The pharmacological basis of therapeutics*. New York: Macmillan Publishing Co, 1980: 1420-47.
- 6 D'Arcy PF, Griffin JP, eds. Drug interactions presenting life threatening emergencies. In: *Drug induced emergencies*. Bristol: John Wright and Sons, 1980:40-62.
- 7 Dossetor J. Drug interactions with oral contraceptives. *Br Med J* 1975;iv:467-8.
- 8 Anonymous. Sterilisation of mentally retarded minors [Editorial]. *Br Med J* 1980;281:1035-6.
- 9 Chakraborti D. Sterilisation of mentally retarded minors. *Br Med J* 1980;281:1281-2.
- 10 Bancroft J. *Human sexuality and its problems*. Edinburgh: Churchill Livingstone, 1983.