Community Clinics in Clinical Pharmacology

Analgesia in terminal malignant disease

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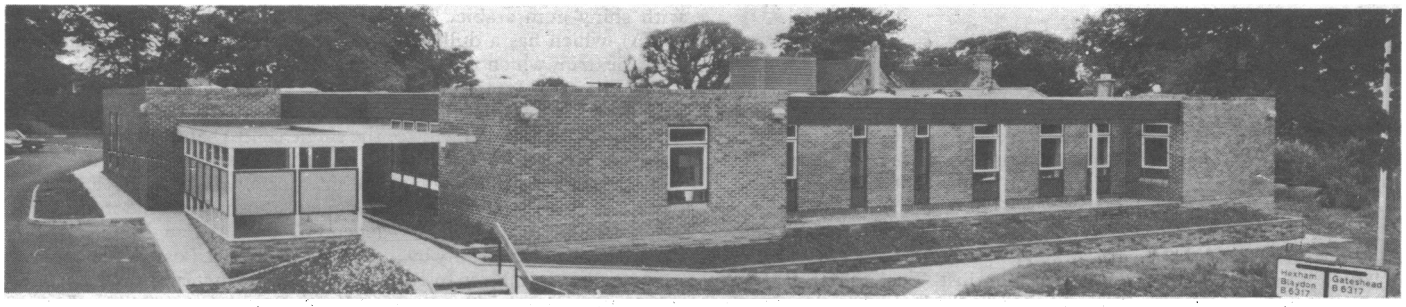

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Problem

Last year an inoperable rectal carcinoma on the posterior wall of her rectum was diagnosed in a 79-year-old widow. A colostomy was formed, which was followed up by cryosurgery and radiotherapy that produced symptomatic relief until ten weeks ago. For just over two months, however, the severe pain in her rectum has not responded to intrathecal hypertonic saline and the anaesthetists are unwilling to perform a caudal block. She is having Brompton cocktail, 10 ml regularly every four hours, supplemented by methadone as necessary, but she still has excruciating pain several times a day. What additional treatment would you suggest for her pain?

Advice

I saw the patient this morning. Her rectal pain is caused by a malignant ulcer that is affecting the posterior part of her anus. The pain varies in intensity between background discomfort and agony, but it is helped by sitting on a cushion with a hole in the middle. She is having 10 ml of the *British National Formulary* "Brompton" cocktail (morphine, 1 mg/ml; chlorpromazine, 1·25 mg/ml; and cocaine, 1 mg/ml) as well as methadone, 10 mg, on an irregular basis—usually twice to thrice daily.

There are four general approaches to the control of pain: modification of pathological process, interruption of pain pathways, raising the pain threshold, and modification of life style (including immobilisation). So far as modification of the pathological process is concerned, there is little that can be done. Her malignant ulcer is mid-line, and bilateral interruption of pain pathways would almost certainly cause retention and overflow incontinence: I don't feel she would want this at the moment. She is already using a special cushion and a chair is being made for her—so I think that the main point of therapeutic attack is to raise her pain threshold with analgesics.

She is having morphine, 10 mg, at roughly 0900, 1300, and 1700 with a double dose at bed-time (2100). Morphine, 10 mg by mouth, is equivalent only to about 3 mg parenterally, so this is a small dose. My first inclination would therefore be to increase her morphine dosage—by 10 mg steps—every two to three days. I would let her take her methadone tablets as necessary, and use her consumption of these as an index of the adequacy of her morphine dosage. In other words, increase the morphine until she stops needing the methadone. I can't predict what this dose will be, but it could be as much as 60 mg four hourly. Drowsiness may be a problem for the first day or two after each dosage increase, but it usually wears off after several days on a steady dose. Constipation is less likely to become a problem (because of her colostomy) than with many patients. In general, I tend to use a combination (Dorbanex, Dorbanex Forte) of poloxamer 188 (a surface active stool softener) and danthron (a stimulant anthraquinone derivative). In this case I would advise a stool softener, such as methylcellulose, only. Nausea and vomiting may be more intractable but should respond to increasing her dose of chlorpromazine. Chlorpromazine is more inclined to cause drowsiness than morphine, and I therefore always manipulate the dosages of the two independently.

If morphine at a dose of 60 mg four hourly gives insufficient analgesia, then I would increase her chlorpromazine. If neither morphine *nor* chlorpromazine provide satisfactory relief then a tricyclic antidepressant may help. I don't know why this is—it may be treating a depression that is secondary to a long terminal illness, or depression may be a consequence of prolonged opiate administration. Cocaine—a traditional ingredient of Brompton cocktail—is therapeutically irrelevant in managing the pain of terminal malignant disease.

Finally, I think you would be unrealistic to expect to achieve total relief of pain. If you can get 75-80%, however, then I think she will be quite content, but, I would emphasise that her therapeutic requirements may change frequently during her

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illness, and you must be prepared to review her condition continuously.

Postscript

The morphine dosage was gradually increased, and at a dose of 60 mg four hourly (with a double dose at night) she could dispense with methadone. She had (and continues to have) recurrent nausea and vomiting for which she takes chlorpromazine elixir BPC, 25 mg six hourly, during exacerbations. Her colostomy functions well with normacol granules (5 g at night).

For 8 months she experienced very little pain on this analgesic regimen: she was able to leave the house to shop, and she spent an enjoyable three weeks staying with her sister.

Recently, however, she has again begun to experience local pain from her ulcer, which has been gradually increasing in size. Local application of lignocaine provided some initial relief, and when this was no longer successful the margins of the ulcer were excised cryosurgically. This has produced considerable improvement, but it may be necessary to readjust her drug treatment as she relapses.

MATERIA NON MEDICA

Australian desert

My introduction to desert country came during army service in the Middle East, and the memory has stayed with me over the years. Which perhaps is why the hot, brown, unforgiving back country of Australia fascinates and attracts me. In the recent summer heat I visited the west of New South Wales. The property, some 50 000 acres (one sheep to 20 acres) was managed by one family with additional help at shearing time.

The weather was hot, clear, and without dust. The arch of the sky, by day a hard unmarked brilliant blue burnished white at the rim of the horizon, by night became a deep star-frosted canopy. As we drove to the Back tank (no horses but the trail bike and a four-wheel drive) the track shivered and shifted in the heat, while the windmill wavered on the horizon, shortening and lengthening in the midday mirage. Stopping to open a gate, the heat was a hot dry cloak, and the silence absolute. At the tank the clanking of the pump in that flat brown immensity was one of the loneliest sounds in the world.

A world again, the station homestead was crowded by gums along a dry creek bed, alive with the comfortable sounds of dogs and children. The steady thump of the generator allowed contact with the outside world, the fourth test, and cold cans of beer. The city was detached and insignificant except for the fall again of Boycott and his wicket. In the fierce, sterile yet passionate beauty of that hard brown land, the family was a microcosm sufficient to itself and content. Those who live in the back country have a strength that comes from the land with which they work, where the wife can bake, clean, and wash yet help muster and yard the sheep. It is not a life for everyone, and the gap between town and country grows wider. But for those few days at Pine Point, the committees and endless talk of community health sank to a nothingness that was a relief beyond measure.—DAVID BOWLER (paediatrician, Adelaide).

The science of stamp collecting

I have never quite got over the disparaging remarks about stamp collecting made by Bernard Levin. So, when I was asked to give a Christmas lecture I determined to talk about Philately and to make it Scientific. Two years later, like many research workers, I have still not finished assembling the data.

To keep the talk simple I chose the current Machin definitives. These are the ordinary stamps you and I use for postage, as opposed to the money-spinning commemoratives produced by the Post Office largely for collectors and tourists. The Machins, named after the sculptor who prepared the original cast of the Queen's head which was subsequently photographed by Lord Snowdon, are designed with the utmost simplicity and dignity—worthy descendants of the Penny Black. The first issue in the old currency consisted of some 20 denominations, and so far there have been nearly twice that number in decimal currency, not counting, in either case, regional issues. You might think that a discussion of 50-odd stamps would present little problem. The trouble begins when you examine these "coloured bits of paper" more closely.

Shades are common and may identify the origin of the stamp from sheets, booklets, or coils. There have been small alterations in the design, of which the current 7p is a good example. Fortunately we don't have to worry about perforations and watermarks, as with older issues, but instead there are paper, gum, and phosphors. In general the Machins are printed on chalky paper, either cream or white, and the surface may be uncoated, varnished, or silicone-treated. The Post Office has been experimenting with gum for some time: they started with shiny gum arabic, but this was replaced by polyvinyl alcohol (PVA), which has a dull, mottled appearance, and more recently by PVA-dextrin, which is bluish green.

But the most interesting item is the phosphor line, and it amazes me how few people seem to have noticed it. Hold a stamp horizontally up to the light and you will see the single centre band or bands at each side that are used to detect first or second class mail. If you are lucky you may find only one band at the side (usually in booklets) and some of these are worth quite a lot of money. Phosphors come in different colours—blue, green, violet—depending on different chemicals, but these can be detected only by ultraviolet light. The Post Office behaves as though it is subject to the Official Secrets Act and does not give much away about its own research, so phosphors are the subject of considerable debate in the learned philatelic journals. I don't know why people smile indulgently when I say I want to retire to devote myself full-time to stamp collecting.—ALEX PATON (consulting physician, Birmingham).

English country garden?

When you think of "an English country garden" what blossoms for your mind's eye? Lavender, larkspur, lobelia, and love-in-a-mist; mignonette, marigold, and michaelmas daisy; tall hollyhocks, honesty, and canterbury bells; gladiolus swords, sweet scabious, stocks, alyssum, aubrietia, and antirrhinum, trailed around with nasturtiums and periwinkle, pretty with candytuft? Do you then find it as unsettling as I did to learn that none of these are indigenous? For such was the result of becoming the owner of a Sunday key for the Botanic Garden in Cambridge. The pound you pay to gain access to this Elysian Field at the sort of time of the week you can actually go there with a clear conscience is amply repaid, partly in the amusement provided by the earnest instructions which accompany the key: "Please lock the gate after you have entered; this is very important. Non-keyholders sometimes hang around the gates in the hope of slipping in behind a keyholder. Keyholders are asked to co-operate by preventing this as far as is possible." It's true, they do! They do not look like vandals, Visigoths, or Hun, but I suppose appearances can be deceptive?

There are glasshouses full of luxurious plants and a limestone rock garden; and there is a mock-up of a piece of Wicken Fen. But the most fascinating bed, which I always visit first, is "Chronological bed of some plants imported into this country." One learns from this that hollyhocks were brought in before 1550 (a quality they share with woad), and that potatoes came from the "Temp Andes," and apparently not, as I had thought, from North America. The herbs grown in Tudor knot gardens included some new arrivals: rosemary, rue, sage, and winter savory were introduced before 1550, while British vegetable gardens benefited later. The period 1591-1610 saw the arrival of haricot beans, and by 1630 Jerusalem artichokes had also crossed the Atlantic. Scarlet runner beans followed between 1631 and 1650.

One would expect there to be a correlation between where plants were imported from and where new trade routes were reaching: one does not bother to bring home things with which one is familiar. It seems reasonable that the pre-1550 section contains plants from Europe and around the Mediterranean. For the next 150 years the Americas seem to predominate, and then in the eighteenth century Asia has more influence. Incidentally, British felines did not enjoy catmint until between 1791 and 1810, when somebody (an intrepid ship's cat?) brought it back from Persia.—VIRGINIA ALUN JONES (clinical student, Cambridge).