Letters

CMAJ publishes as many letters as possible. However, since space is limited, choices have to be made, on the basis of content and style; we routinely correspond only with authors of accepted letters. Letters that are clear, concise and convenient to edit (no longer than two double-spaced typescript pages, or 450 words) are more likely to be accepted. Those that are single-spaced, handwritten or longer than 450 words will usually not be published, without comment to the author or return of the letter; nevertheless, we reserve the right to abridge letters that are unduly long or repeat points made in other letters, especially in the same issue, as well as to edit for clarity.

Cancer caused by radioactive gold rings

Two recent incidents of skin cancer caused by radioactively contaminated gold rings were brought to the attention of the Bureau of Radiation and Medical Devices, Department of National Health and Welfare.

The first incident occurred in Ontario and involved a husband and wife who had bought gold rings in the United States about 30 or 40 years ago. Beta and gamma radiation was measured from both rings. The husband's signet ring delivered a dose of 0.027 cGy (rad) per hour, or about 240 cGy per year. The wife's engagement ring delivered about 74 cGy per year. The husband had a carcinoma below the area of the ring. Previously he had had irritations of the skin underneath the ring, which had been medically treated "with cremes". The wife denied any symptoms from wearing her ring.

The second incident occurred in the Maritimes and concerned a partially radioactive engagement ring bought locally almost 40 years before.[1] The ring delivered a dose of 1.43 cGy per hour, or about 240 cGy per week, to the skin of the finger. The owner had a squamous cell carcinoma on the base of the finger beneath the ring and skin changes of the middle and little fingers in the areas adjacent to the ring. She too had suffered chronic skin irritations for many years and had been treated for contact dermatitis.

In both cases the radioactivity emitted from the rings was compatible with contamination of gold by decay products of radon. Small hollow goldseeds containing radioactive radon gas were used in the early days of radium therapy for cancer, being inserted directly into the tumour mass. Some of the radioactive gold was manufactured into jewellery in the 1930s and later.

Incidents of skin cancer caused by radioactive gold rings are rare. However, the number of radioactively contaminated gold rings or other gold jewellery owned in Canada is not known.

Physicians alerted to this problem may be able to prevent skin cancer or detect it early. Radiation dermatitis, which usually occurs before carcinoma, mimics contact dermatitis, a much more frequent condition. However, radiation dermatitis tends to persist after removal of the jewellery and tends not to respond well to treatment. If radioactive contamination of gold jewellery is suspected the items can be tested free of charge by the Atomic Energy Control Board or one of its regional offices.

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Reference

1. Miller RAW, Aldrich JE: Radioactive gold ring dermatitis. *Am J Dermatol* (in press)

Parasitology: diagnostic yield of stool examination

Drs. Hélène Senay and Douglas MacPherson argue persuasively that the practice of submitting stool specimens for parasitology in groups of three is outmoded because of improvements in laboratory technique (*Can Med Assoc J* 1989; 140: 1329–1331).

However, I find myself just a little less than totally convinced by the facts on which they have based their conclusion and wonder how completely an essentially laboratory study can be applied to clinical practice. For instance, since only 16% of the stool samples were positive, I

← For prescribing information see page 626

would like to know how many samples were submitted by patients with symptoms and to what extent routine pre-employment examination of food-handlers or follow-up examination of treated patients might have reduced the percentage of positive results by resulting in a mix of low-yield and high-yield populations in the same study.

I would also ask the authors if they have considered the extent to which duration of symptoms may have influenced enteric parasite recovery, whether they found any evidence of variation in the rate of parasite recovery between the different levels of care that their Regional Parasitology Laboratory must serve and if they can give any estimate of the numbers of symptomatic patients who received treatment before completing submission of a series of stool specimens.

James McSherry, MB, ChB
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[Dr. MacPherson replies:]

Dr. McSherry raises several excellent questions concerning our study. I offer the following in reply and as a challenge to all physicians referring to laboratories.

Studies designed to obtain accurate estimates of the burden of infectious gastrointestinal diseases are difficult to perform.[1] Community-based studies of the prevalence of enteric parasites are expensive, and no reports on recent studies are available. However, it is generally believed that approximately 5% of the North American public harbour one or more intestinal parasites. As you become more selective in choosing the population the percentage with positive results of stool tests for parasites can exceed 50%. Our positivity rate of 16% is consistent with that of other reference parasitology laboratories and compares with the rate of approximately 3% for bacteriologic studies. This indicates a good level of selection of patients by referring physicians.

Unfortunately, despite the fact that our laboratory requisition asks for clinical history and travel information this is rarely given. In a survey of clinically significant bacteriologic isolates, I found that less than 15% of the laboratory requisitions were accompanied by relevant clinical information (unpublished observations, 1987). Owing to this paucity of clinical information any specific statement on the population base for referral would lack validity. Nevertheless, I can say that the vast majority of our referred specimens come from the general community and not from asymptomatic people who have been screened or from high-risk international travellers.

The importance of this study, and others like it, is to change the pattern of laboratory use. At least 90% of cases of positivity for enteric parasites can be identified from one specimen. In such cases the cost (to the health care system and the patient) and the inconvenience (to the patient) will be reduced if the recommendations of this paper for avoiding unnecessary laboratory testing are followed. In patients with negative results additional specimens should be submitted according to the clinical situation.

Laboratories can no longer be expected to function as "black boxes". There must be a greater exchange of relevant information between clinicians and laboratorians. Hence, I would paraphrase Dr. McSherry's comment and say that ours was an "essentially laboratory study to be applied to clinical practice".

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Reference

1. Garthwright WE, Archer DL, Kvenberg JE: Estimates of incidence and costs of intestinal infectious diseases in the United States. *Public Health Rep* 1988; 103: 107-115

The psychologic effects of spontaneous abortion

It is good that in their sympathetic article (*Can Med Assoc J* 1989; 140: 799-801, 805) Drs. Ruth Stirtzinger and G. Erlick Robinson remind us that "for [the mother] this has been the loss of a baby". But in their review they incidentally say that in a group of women described by Simon and associates[1] "there were no reported cases of psychiatric symptoms attributable to *therapeutic* abortion [emphasis mine]". This statement is not made in the article quoted.

Simon and associates wrote that "the amount of psychopathology seen following spontaneous abortion over the same 10 year follow-up period is minor when compared to the therapeutic abortion group". Of the 46 women who had had a therapeutic abortion, 40 of whom the authors followed for at least a year, 32 (70%) had "psychiatric illness after therapeutic abortion" (their Table III); in 3 of 12 of these women the illness was related in time to the abortion. Simon and associates made the point that psychopathology often (in 65%) preceded the abortion; this, with their findings of "subsequent psychiatric illness", is saying that such psychopathology is not effectively treated by induced abortion, which clearly should not be termed "therapeutic". There is much evidence that it is pathogenic.

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Reference

1. Simon NM, Rothman D, Goff JT et al: Psychological factors related to spontaneous and therapeutic abortion. *Am J Obstet Gynecol* 1969; 104: 799-808

[Dr. Robinson replies:]

Our article was clearly not intended to focus on the emotional