Ovarian failure after total body irradiation

SIR,—Dr M P Cust and colleagues only touch on the possible long term effects of total body irradiation,¹ but these need to be addressed as increasing numbers of patients are successfully treated.

We measured bone mineral content and density in the lumbar spine in 14 women who had premature ovarian failure after treatment for haematological malignancies. On average, 51 months had elapsed since treatment. We used a dual energy x ray absorption technique with a precision of 1%.² The patients' mean vertebral bone density was 0.97 (SD 0.15) g/cm²; that of a control group³ of 68 women in the same age range (19 to 45, mean age of both groups 33 years) was 1.07 (0.09) g/cm² (p=0.04, Student's *t* test). The patient with the lowest bone mineral density (0.71 g/cm²) had already suffered an atraumatic fracture of a metatarsal bone.

The loss of almost 10% of bone mineral in this short time implies that these patients are at risk of developing osteoporosis in the future. We support the recommendation of Dr Cust and colleagues that they should be referred to a gynaecologist or endocrinologist to consider hormone replacement therapy.

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Transvaginal colour flow imaging and ovarian cancer

SIR,—In the discussion of their paper on transvaginal colour flow imaging Dr Thomas Bourne and colleagues state that to their knowledge no previous report on using colour Doppler imaging for differential diagnosis of ovarian masses has been published.¹ Our report² appeared several months before theirs, and we have presented data elsewhere.^{3,4}

Since 1988 we have examined 5000 patients with a 5 MHz transvaginal colour Doppler probe. We detected 147 ovarian tumours: 23 of these proved to be malignant. Diagnosis was confirmed by examination of diseased tissue (table). All of the malignant tumours showed prominent colour flow, and the calculated Pourcelot resistance index was <0.40 in all cases. By using this criterion we diagnosed two ovarian carcinomas of stage IA and one of stage IB. Only one false positive result

was obtained; this was in a patient with an inflammatory pseudocyst. There were no false negative results. The sensitivity of this new diagnostic procedure was 100%, specificity was 99.2%, and accuracy was 99.3%. The patients who had negative initial results were re-examined a year after the original procedure. No signs of pathological masses were found in this group.

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Transabdominal ultrasound screening for early ovarian cancer

SIR,—Professor Stuart Campbell and colleagues conclude that ultrasonography of enlarged adnexa in postmenopausal women has no value in differentiating benign from malignant lesions, and they consequently recommend surgical exploration in all patients with such lesions. This recommendation may have important implications for daily radiological practice. The increasing use of total abdominal ultrasonography in patients referred to the radiology department¹ yields many coincidental findings with potential clinical implications.

One such finding has been unilocular, thin walled adnexal cysts in postmenopausal women. Over two years we have found such cysts in 18 women without related symptoms. Diameters varied from 2 cm to 11 cm (mean 5.0 cm). Sixteen of the women were operated on; all of the cysts were benign. Also, four postmenopausal women with asymptomatic thin walled, multilocular cysts were operated on, and no malignancy was found. This experience is supported by other reports.² With regard to the two malignant and three borderline malignant lesions that Professor Campbell and colleagues discovered, we would like to know their size, wall thickness, and demarcation from the surrounding tissue at operation and whether this correlated with the findings on ultrasonography.

Advocating surgical exploration of all enlarged adnexa in postmenopausal women, regardless of their ultrasonographic features will lead to considerable "overkill," and it seems reasonable to consider conservative management and follow up with ultrasonography in elderly patients with

small, unilocular, thin walled and well demarcated adnexal cysts.

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Reduction of stress in carers of patients with dementia

SIR,—I question one aspect of the methods of Dr H Brodaty and Mr Meredith Gresham described in their article.¹ They mention that the exclusion criterion of greater than age 80 years was instigated for follow up purposes. I assume this to mean that they consider it more difficult to communicate with or track the very elderly than the young elderly. The mean age of patients studied was, not surprisingly, only 70.2. Unfortunately, because patients with dementia (and their spouses) tend to be quite a bit older I fear for the general applicability of this study.

Dr R Friedman and I have criticised research into diseases that affect mainly the elderly but is performed in subjects who are atypically young.² Clearly, there are logistical problems in studying the aged. Nevertheless, for a condition such as dementia the practice of age restriction is most unfortunate and limits the effectiveness of an otherwise first rate study.

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Mortality among oral contraceptive users

SIR,—Although generally we agree with Professor M P Vessey and colleagues¹ that the risks of using the contraceptive pill may have been over-emphasised, we think that their comparisons with the mortality data of the Royal College of General Practitioners² are not entirely appropriate. Although the two cohort studies are almost contemporary, the royal college's analyses were based on data accumulated up to 10 years ago. This means that there is an important difference in the proportion of current users and former users who are combined as ever users in both reports. Thus in the royal college's report 54% of the total of 184 000 person years of observation related to current use, while in the paper by Professor Vessey and colleagues only 34% of the total of 152 000 person years represented current use.

This important difference would tend to produce smaller overall risk ratios between ever and never users as almost all of the excess mortality associated with use of the contraceptive pill is due to vascular disorders² and is associated almost entirely with current use.³ It is noteworthy that the increased risk of myocardial infarction found by Slone *et al*⁴ among women aged 40 to 49 years who had previously used oral contraceptives was not confirmed by them in a more recent case-

Blood flow in adnexal mass in 147 women with ovarian tumours according to pathohistological diagnosis

Pathohistological diagnosis	No of patients	Colour flow		Mean (SD) resistance index
		Present	Not present	
Serous cystadenocarcinoma	11	11		0.34 (0.09)
Mucinous cystadenocarcinoma	8	8		0.35 (0.06)
Metastatic follicular cancer of the thyroid gland	1	1		0.25
Metastatic rectal cancer	1	1		0.30
Granulosa cell tumour	2	2		0.40 (0.01)
Dermoid cyst	18		18	
Simple ovarian cyst	38		38	
Hydrosalpinx	13	1	12	0.71
Serous cystadenoma	11		11	
Mucinous cystadenoma	9		9	
Papillary cystadenoma	2		2	
Endometriosis	32		32	
Pseudocyst	1	1		0.39