

referred to in the personal communication to Swedberg, but in our trial withdrawals for this reason were according to prespecified criteria and in line with usual clinical practice.

The size of our trial was indeed based on a comparison of active with placebo treatment, but, as we pointed out, an assessment of the two active agents was an important secondary objective from the outset. The advantage of the diuretic over the β blocker was clear, particularly for coronary events, and is also suggested by other recent results.¹ Swedberg is surely not suggesting that findings of such immediate clinical relevance should remain unreported.

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1 Beard K, Bulpitt C, Mascie-Taylor H, O'Malley K, Sever P, Webb S. Management of elderly patients with sustained hypertension. *BMJ* 1992;304:412-6.

Life events and breast cancer prognosis

EDITOR, — As Jennifer Barraclough and colleagues¹ point out, the findings of their prospective study of life events and breast cancer prognosis differ from those of a cross-control study undertaken at Guy's Hospital.² Possible reasons for these apparently discrepant results should be sought before any influence of severe life experiences on relapse of breast cancer is dismissed.

At Guy's Hospital cases and controls were carefully matched for the major factors that influence outcome, including histological grade and number of involved nodes. At Southampton this information was not available. Thus important imbalances could have been present between patients with and without severe life experiences.

Clearly, knowledge of relapse status introduces the possibility of bias, but this is possible in any life events study as events can be ascertained only retrospectively. In the Southampton study the patients were not blind to their disease status at the time of an interview, and it must have been difficult for the interviewer to remain so. Bias in the rating of severity of events can be minimised if this is done by a panel of judges who are unaware of disease status, as was the case at Guy's Hospital.

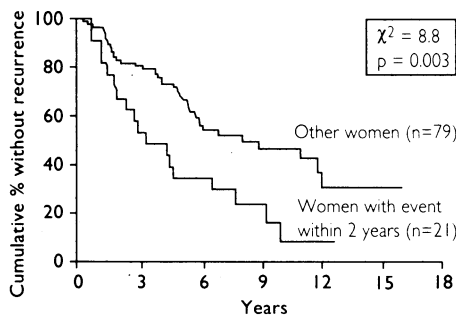
At Guy's Hospital all interviews were conducted with the patients themselves, whereas for 11 of the 47 patients who relapsed at Southampton a final interview was conducted only with next of kin and for two other patients who relapsed no interview was performed. This could have led to under-reporting of severe life experiences in a most important group.

The apparently high incidence of severe "own health" experiences not related to breast cancer observed at Southampton, affecting 21 patients during the 42 month follow up, was surprising. No such severe health experiences were recorded at Guy's Hospital. We were therefore interested in the finding that severe own health experiences had a significant adverse effect on outcome ($p=0.01$). The authors comment that it makes intuitive sense that patients with breast cancer in poor general health are more vulnerable to relapse. This is unproved.

The power of the Southampton study was diminished by the fact that 42 patients declined to participate and that these patients had a higher

death rate (and presumably higher relapse rate) than those interviewed. We estimate that with 204 patients entered and a 23% relapse rate the study had about a 50% chance of detecting a difference between the groups if the true relative risk attributable to serious life experiences is 2.0.

Differences in the use of tamoxifen between the two studies may be important. At Southampton most postmenopausal women with positive nodes received tamoxifen. None of the patients at Guy's Hospital received tamoxifen (all patients presented initially before 1987). An intriguing possibility arises that the beneficial effect of tamoxifen could be partly mediated by counteracting any adverse effect of severe events. This benefit might be most pronounced in hormone sensitive tumours. In the Guy's Hospital study the influence of severe events on relapse was most apparent among the patients with tumours positive for oestrogen receptors.³



Recurrence free survival in women with breast cancer who had a severe event in first two years of follow up compared with other women in study (patients followed up to January 1991)

In our view the question of whether serious life experiences influence relapse is still unresolved. We are conducting a prospective study similar to that reported by Barraclough and colleagues, in which we are also assessing the impact of severe events on immunological and endocrinological variables. We would also encourage Barraclough and colleagues to re-examine the outcome for their patients after a longer follow up. This would not entail collection of further data on life events as we found that severe events occurring within the first two years after diagnosis were largely responsible for the positive outcome of our study (figure).

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- 1 Barraclough J, Pinder P, Cruddas M, Osmond C, Taylor I, Perry M. Life events and breast cancer prognosis. *BMJ* 1992;304:1078-81. (25 April.)
- 2 Ramirez AJ, Craig TJK, Watson JP, Fentiman IS, North WRS, Rubens RD. Stress and relapse of breast cancer. *BMJ* 1989;298:291-3.
- 3 Ramirez AJ, Richards MA, Gregory WM, Craig TJK. Psychological correlates of hormone receptor status in breast cancer. *Lancet* 1990;335:1408.

- 1 Barraclough J, Pinder P, Cruddas M, Osmond C, Taylor I, Perry M. Life events and breast cancer prognosis. *BMJ* 1992;304:1078-81. (25 April.)
- 2 Geyer S. Life events prior to manifestation of breast cancer: a limited prospective study covering eight years before diagnosis. *J Psychosom Res* 1991;35:355-63.
- 3 Ramirez A, Craig TKJ, Watson JP, Fentiman IS, North WRS, Rubens RD. Stress and relapse of breast cancer. *BMJ* 1989;298:291-3.
- 4 Lovestone S, Fahy TA. Psychological factors in breast cancer. *BMJ* 1991;302:1219-20.

Psychological influences on cancer and ischaemic heart disease

EDITOR, — Anthony J Pelosi and Louis Appleby summarise recent research by Eysenck and Grossarth-Maticek about psychosocial influences on cancer and ischaemic heart disease.¹ They raise several critical questions; among them they suggest that "one is left to speculate whether the authors have made the mistake, during reanalysis of their data, of reassigning individuals to personality types after causes of death were known."

In an issue of *Psychological Inquiry*² a target