answers to question 4 one point was awarded. The points awarded were then summed to give a score ranging from 0-5.

- 1 Are you free to leave the hospital at the moment? (yes=0, no=1)
- 2 Can you tell me the name of the part of the Mental Health Act under which you are being detained? (section 2=1, other=0)
- 3 Can you tell me how long section 2 lasts? (28 days=1, other=0)
- 4 Do you know if there is any way that the section can be lifted before 28 days are up? (2=discharge by regional medical officer and after appeal to tribunal; 1=either discharge by regional medical officer or after appeal to a tribunal; 0=did not know or incorrect answer).

Test of reading and comprehension of sentences from the booklet

This test was based on three sentences taken from the Mental Health Act booklet that is given to detained patients to explain their rights. The readability of this booklet was assessed with the grammar checking facilities of Microsoft Word for Windows (version 2). The readability statistic was the Flesch reading ease score, which calculates readability based on the mean number of syllables per word and the mean number of words per sentence. Scores range from 0 to 100. Higher scores indicate that a greater number of people could readily understand the document. The booklet was found to have a Flesch reading ease of 76, corresponding to "fairly easy" on the norms for the scale.

To test reading and comprehension skills three sentences from the booklet were used. The sentences had reading ease scores at, above, and below the mean for the booklet. The sentences were:

- 1 "After 28 days you can only be kept in hospital if your doctor thinks you need to stay longer and makes new arrangements (under section 3 of the Mental Health Act)." Reading ease of 60.8 (average)
- 2 "You can ask the Tribunal to look at your case by writing to them or sending them a form which the hospital can give you." Reading ease of 76.6 (fairly easy)
- 3 "You must not leave before the end of the 28 days unless

a doctor tells you that you can." Reading ease of 89.6 (very easy).

To test reading and comprehension patients were first asked to read sentence 1 aloud. If subjects could read all the words in the sentence at a conventional speed they were given three points. If the subject had problems reading sentence 1 then the same procedure was repeated for sentence 2, a correct reading of this sentence gaining two points. If the subject had difficulties with sentence 2 the same procedure was repeated for sentence 3, for which a correct reading gained one point. Subjects unable to read any sentences were given no points. To test understanding a similar scoring procedure was used except that subjects were asked to explain, in their own words, the meaning of the sentences.

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Serum cholesterol concentration and risk of brain cancer

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Two recent epidemiological studies have reported a positive relation between cholesterol concentration and brain cancer. In one cholesterol concentration was measured at the time of diagnosis,¹ and in the other mortality was observed five or more years after the measurement.² In both studies brain cancer could have influenced cholesterol concentration. The Kaiser Permanente medical care programme obtained serum cholesterol measurements in roughly 160 000 members as part of multiphasic health examinations conducted during 1964-72. We examined the risk of developing malignant brain cancer five or more years after the cholesterol measurement to evaluate further their relation.

Subjects, methods, and results

The participants were members of the Northern California programme who were aged 15 years and over and had completed a multiphasic health examination during 1964-72.³ Follow up began five years after the date of the cholesterol measurement, so that prevalent cancers would be excluded, and ended on the date of diagnosis of a malignant brain tumour (code 191 of the ninth revision of the International Classification of

Diseases), the date of termination of membership, or 31 December 1991. Cancer diagnoses were identified by the Northern California Cancer Center, which manages a population based registry that has participated in the United States National Cancer Institute's surveillance, epidemiology, and end results programme since 1973, and by review of the computerised hospital discharge records of the Kaiser Permanente medical care programme to confirm the diagnoses of primary malignant brain tumours. Five controls, individually matched for age (within five years), year of examination, and sex, were selected for each case. The case-control design provided valid estimates of the relation between serum cholesterol concentration and risk of malignant brain cancer and was easier and less costly to conduct than a cohort study. Both cases and controls were required to be members of the Kaiser Permanente medical care programme at the time of diagnosis of cancer in the case.

We considered men and women separately because they differ in terms of their risks of developing brain cancer and the distributions of their age specific cholesterol concentrations. Serum cholesterol concentration, available for 91% of those who received a multiphasic health examination, was coded into six categories containing roughly equal numbers of male and female subjects. To test for a trend cholesterol concentration was left as a continuous variable. Conditional logistic regression was used to compute the odds ratio and 95% confidence interval, with examination of age, race, educational attainment, marital status, history of cigarette smoking, and alcohol

Serum cholesterol	No (%) of cases	No (%) of controls†	Odds ratio (95% confidence interval)	Adjusted ratio (95% confidence interval)‡
<i>Women</i>				
-179	14 (17)	55 (13)	1.0	1.0
-204	14 (17)	64 (15)	0.89 (0.39 to 2.0)	0.91 (0.39 to 2.1)
-223	15 (18)	69 (17)	0.90 (0.39 to 2.1)	0.96 (0.41 to 2.2)
-240	14 (17)	78 (19)	0.69 (0.30 to 1.6)	0.71 (0.30 to 1.7)
-258	14 (17)	58 (14)	0.88 (0.37 to 2.1)	0.95 (0.39 to 2.3)
>258	14 (17)	94 (23)	0.56 (0.23 to 1.4)	0.58 (0.24 to 1.4)
<i>Men</i>				
-187	20 (16)	96 (16)	1.0	1.0
-208	19 (15)	128 (21)	0.74 (0.37 to 1.5)	0.65 (0.32 to 1.3)
-220	21 (17)	82 (14)	1.2 (0.62 to 2.4)	1.3 (0.62 to 2.5)
-238	21 (17)	108 (18)	0.96 (0.48 to 1.9)	0.82 (0.40 to 1.7)
-258	20 (16)	92 (15)	1.1 (0.53 to 2.2)	1.1 (0.51 to 2.2)
>258	22 (18)	96 (16)	1.2 (0.58 to 2.3)	1.1 (0.52 to 2.2)

*1 mg/dl=0.02586 mmol/l.

†Some information missing for seven female and 13 male controls.

‡Adjusted for age with five year group (continuous), race (white, black, other), educational attainment (less than high school, high school graduate, some education past high school), marital status (never married, ever married), history of cigarette smoking (0, <20 years, ≥20 years), and alcohol intake in the year before health examination (none, any).

intake in the year before the examination as potentially confounding variables. These variables had been considered in previous studies of the hypothesis.³

The case group consisted of 85 women and 123 men. The proportion of cases and controls in each category of serum cholesterol concentration was similar in both sexes, and there was little association between cholesterol concentration and subsequent risk of developing malignant brain cancer (table). Women with serum cholesterol values greater than 258 mg/dl (6.67 mmol/l) were at a somewhat reduced risk relative to women with lower values, but a trend in risk was not apparent (P value for trend 0.10).

Comment

As in two earlier studies in which the incidence⁴ and mortality⁵ of brain cancer were examined several years after serum cholesterol concentration was measured we found little evidence for a relation between cholesterol value and subsequent brain cancer. Our case group was restricted to people with malignant tumours. A relation with subsequent benign tumours may exist,

but a more likely explanation for the difference between our results and the positive associations reported earlier stems from the timing of the serum cholesterol measurement. Further study of an aetiological role of cholesterol in the development of brain cancer should be conducted in populations in which cholesterol concentration has been measured before the onset of the disease.

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A MEMORABLE PATIENT

A good death

Fen was Dutch and had come to Bermuda after the second world war. He was a lawyer and obviously very successful. I saw him infrequently, only about two or three times in 10 years, but when he walked into my office on this occasion I noted a weight loss and his tired expression. His symptoms were few—vague abdominal discomfort and lack of energy. On abdominal examination the diagnosis was obvious. The liver was enlarged, hard, and knobbly. He wanted to know my diagnosis. I told him he probably had metastatic deposits in the liver from a primary in the stomach or colon, but further tests were necessary to determine the site of the primary and our course of action. I suggested barium studies or endoscopy or both—it was before the days of computed tomography. He pressed me to say how sure I was that it was cancer. I said 95%. In his usual polite way he declined investigation and treatment—95% was good enough for him. I therefore suggested a surgical opinion and referred him to a colleague who told me of their conversation. When he had confirmed my findings Fen asked, "Can I smoke?" "Of course." "I enjoy my cocktail, any harm in that?" asked Fen. "Not at all." "You know, I am really very fortunate because if you do either of these two things it will ruin your health," said Fen with a twinkle as he departed.

Fen asked me to come and see him once a week for an

evening cocktail in his lovely home overlooking the harbour and backing on to the golf course. "It is so much less depressing than coming to your office, but I do insist you bill me for the visit," he said. Over the next six or eight weeks he gradually weakened, but was still functioning and playing his violin that he loved. A clergyman was leaving one evening when I arrived. All arrangements had been made and a generous donation given to the church. He was now jaundiced and had deteriorated considerably since my last visit. "The time has come, Gordon," he said. "I am in a lot of discomfort and cannot function anymore." I started him on morphine and got him a private duty nurse. The next day on my visit he summoned all his strength to see me to the door, gripped my hand, and said, "Goodbye my friend, you have been a great help." I could not find words, and as tears welled up in my eyes he comforted me and said, "Don't grieve, I have had a great life, and with all the terrorism and violence around I am not sorry to be going. I hope I have not been too much trouble to you."

This was some 10 years ago, and I often think of Fen, especially as I now approach retirement. I would like to think I would show the same courage and dignity in my last days that Fen did in his.—GORDON BLACK is a physician in Bermuda