routine laboratories will become even greater, and compliance (which is often poor and the present main indication for requesting thyroid function tests in these patients[5]) will have to improve considerably. Patients might also have to accept the inconvenience of taking thyroxine in divided doses to avoid peaks of circulating thyroid hormone damaging the liver, a significant negative factor when promoting compliance with a life long treatment regimen.

A much larger and better designed study is required before these authors' recommendations can be widely accepted.

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## Thyroxine replacement treatment: clinical judgment or biochemical control?

SIR,—Dr Anthony D Toft's leading article (27 July, p 233) makes a reasoned case for preferring the results of thyroid function tests to clinical judgment in determining the appropriate dose of replacement thyroxine in cases of primary hypothyroidism. May a sufferer from the complex and possibly unique combination of hypothalamic hypothyroidism with end organ resistance[1] put in a good word for clinical judgment? In cases such as mine thyroid function tests may be reliable but they are not necessarily a valid index of clinical thyroid status.

Over the course of nine years, three without and six with replacement with thyroxine and, latterly, thyroxine plus liothyronine, it has become evident that thyroid function tests can give very misleading results. Gross clinical symptoms and signs of hypothyroidism—including delayed ankle tendon reflexes, hoarseness, hair loss, partial deafness, mental dullness, irritability, anergia, drowsiness, sleep disturbance, occasional angina, general inability to function, and malaise—have been present at total thyroxine concentrations ranging from 84 to 177 nmol/l (6·5-13·7 μg/100 ml), an intraindividual range as wide as some laboratories' ranges for the normal population. Thyroid stimulating hormone values have always been low, ranging from 0·8 to 2·0 mIU/l. Unfortunately, triiodothyronine levels were not measured concurrently on these occasions, but subsequently a raised triiodothyronine concentration of 3·8 nmol/l (247 ng/100 ml) has been found in the presence of a normal thyroxine (136 nmol/l (10·5 μg/100 ml)) and free thyroxine (27 pmol/l (2·1 ng/100 ml)) while clinical symptoms persisted. When the dose of triiodothyronine replacement was raised the symptoms eventually cleared. Further concentrations have not been measured as they would so readily be open to misinterpretation.

Under these circumstances there is no alternative but to use clinical response as the criterion of adequate replacement. Such cases may not be common, but they stand to suffer from inadequate replacement if biochemical criteria are applied in a procrustean fashion.

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## Factors that influence patients in Sri Lanka in their choice between Ayurvedic and Western medicine

SIR,—Unfortunately the study by Ms Judith R Glyn and Mr Timothy D Heymann (17 August, p 470) reinforces stereotypes while ignoring the enormous amount of scientific material which has already been produced in medical anthropology. The main problem is that the authors are not sufficiently familiar with Ayurvedic medicine and Western medicine in developing countries to interpret properly what they heard in Sri Lanka. The behaviour of patients in acute and incapacitating diseases is different from that in chronic and non-incapacitating diseases.[1] At least a distinction like that could have been made by Ms Glynn and Mr Heymann in their interviews.

There is no simple choice between Western and Ayurvedic medicine. My own research in Sri Lanka showed that those with fractures will turn to a traditional fracture healer in more than 90% of cases.[2] Ms Glynn and Mr Heymann refer to Dr Harath Hamy from Horiwula as just a "cult healer" between "Buddhist pictures" and a "stuffed snake," reinforcing a stereotype of the traditional practitioner some people in Europe have, but it would have been more interesting to read something about the effective way the army of fracture healers in Sri Lanka works, making use of massage, light casts (called patthus), and early mobilisation. The same can be said about the traditional snakebite healers and the indigenous boil practitioners. Mental disease is also mainly the province of the indigenous medical systems. In the north the Buddhist clergy plays an important role, while in the south the "kathadiyas" (devil dancers) have high success rates with their healing methods. If the authors had taken the trouble to read just a bit about them[3 4] and about comparisons that have been made between their success rate and that of Western psychiatrists[5] they would not have described kathadiyas as "people who tie ropes around the upper arms" of the patients.

In Sri Lanka the term Ayurvedic medicine is not used in the same way as it is used in India. In India a specific medical system is meant,[6] while in Sri Lanka it is synonymous with "indigenous medicine."[7] The choice is not, however, between Western and Ayurvedic medicine, but between several different medical systems and their variations. Moreover, people very often do not have a choice but have to take what is available. As Foster rightly states most of the Third World population prefers Western treatment,[8] because it is quick and symptomatic. We see this in the answers that were given to Ms Glynn and Mr Heymann. It is important to get rid as soon as possible of complaints that threaten survival. If we look at the Western health care service in Sri Lanka our first impression will be that it is well organised. But in fact the health care system is in decay because the government is not investing in it as before.[9] Therefore more and more people prefer to pay something and go to a public Western practitioner. However, there are not many of these in the rural areas—they prefer to work abroad. Many patients will therefore go to the second best option, which is the Ayurvedic practitioner who prescribes allopathic medicines. Indeed, about 50% of the Ayurvedic practitioners work with Western medicines.[2 9] In other countries the same phenomenon can be observed.[10-12] These "modern" Ayurvedic practitioners attract more patients than the traditional indigenous ones.

One cannot say, however, that the Ayurvedic practitioners who use Western medicines are Western practitioners. Some have indeed been completely absorbed by the Western medical system and they will be perceived by the local population as belonging to it. Others, however, will use Ayurvedic treatment in some diseases and Western medicines for others. Some practitioners give Western treatment in the initial stages of a disease and go over to Ayurvedic treatment after a while. Again others will give Western treatment to impatient patients but stick to Ayurvedic treatment with the others. And some Ayurvedic practitioners mix corticosteroids and antibiotics with their herbal treatments.

To suggest that the patients in Sri Lanka can choose between Western and Ayurvedic medicine only betrays a bias where things seem only to be Western or not Western. It suggests a simplicity that does not exist.

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## Aminoglutethimide induced agranulocytosis in breast cancer

SIR,—Since Dr M D Vincent and colleagues (13 July, p 105) reported three cases of severe leucopenia and agranulocytosis induced by aminoglutethimide during treatment of breast carcinoma we have seen a woman with pancytopenia consequent on aminoglutethimide therapy. We question the theoretical basis for the use of aminoglutethimide in this context.

A 69 year old woman was admitted on 13 August 1985 in septicaemic shock. Three years earlier she had presented with an ulcerating carcinoma of the left breast with axillary node metastases. Her initial therapy had been four courses of cyclophosphamide, doxorubicin, and vincristine followed by radiotherapy. In August 1983 tamoxifen had been prescribed for local recurrence, initially with success, but because of further local relapse, this was changed to aminoglutethimide 1 g/day and hydrocortisone 40 mg/day in June 1985. At this time the full blood count