

Letters to the Editor

Height, Cancer, Longevity, Centenarians

We are too tall

Madam

One of the general ideas that sustains biological scientists is that it is better to be tall than to be short. However, most relevant evidence shows that this idea is wrong⁽¹⁾. It was also challenged recently in an authoritative report showing that being tall increases the risk of colorectal and post-menopausal breast cancers and (probably) pancreatic, pre-menopausal breast and ovarian cancers⁽²⁾. Your Out of the Box columnist has commented on the issue of height and health⁽³⁾. This letter reports some new findings.

Within generally healthy environments, shorter people live longer⁽⁴⁾. Six relatively short populations, those of Andorra, Macao, Japan, San Marino, Singapore and Hong Kong, are at the top of the life expectancy charts. Another study, based on 1.3 million 21–30-year-old men tracked for 70 years, shows that shorter men live longer⁽⁵⁾. Many other studies support these findings^(1,4).

Okinawans have the world's highest percentage of centenarians. Centenarian men average 1.48 m and women 1.39 m^(1,4). A new study in Sardinia has found longevity is greater for short men⁽⁶⁾. The percentage of centenarians in Italy increases with decreasing height from mainland Italy, to Sardinia, to Nuoro (a province in Sardinia).

Biological factors support epidemiological findings. For example, longevity is related to the replicative capacity of cells, and shorter elderly people have a higher remaining replicative capacity than taller elderly people⁽⁷⁾. It also takes more cells to build and maintain a bigger body, and more cells increase the risk of cancer in taller people⁽⁴⁾.

We are all accustomed to the fact that women live longer than men. Why? I suggest one reason is clear. Women are shorter than men.

Let us hope that the scientific community thinks again about the implications of increasing height, before genetic engineers are set loose on further increasing the heights of future generations.

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Leaf concentrate. Undernutrition

Nourishing child and adult patients in Congolese hospitals

Madam

In support of the letter you have published from Glyn Davys⁽¹⁾ following that from Professor John Waterlow⁽²⁾, I wish to testify as follows. I am Surgeon to the Diocesan Health Service in Bukavu, in which capacity I have clinical experience of the use of leaf concentrate in many sorts of situation.

For four years the Service studied the effects of leaf concentrate made from lucerne, which was distributed widely in seven hospitals, three referral health centres and a dozen health clinics in South Kivu, where childhood malnutrition is particularly high due to war, pillage and the whole assortment of accompanying miseries.

Initially kept for infants with kwashiorkor and marasmus, leaf concentrate was then also given to pregnant women who though more or less well-nourished were anaemic, and especially to those who, having given birth, presented with absence of breastmilk or difficulty in providing it. We went on to give leaf concentrate to patients in a poor general state because of chronic infections of many kinds; and we used it post-operatively, and also for malnourished diabetics and for debilitated convalescents. The doses were 5–6 g/d for children and 10–12 g/d for adults.

Results were very rapid, spectacular even. There was no intolerance or allergic reaction recorded and consumption of the concentrate was readily accepted by all. We noted:

- Curing in a week or two of asthenia and apathy.
- Rapid recovery of appetite and improvement in general condition.
- Regain of weight, even able to catch up in 4–6 weeks.

- Curing in a few days of diarrhoea and oedema with no other treatment.
- Correction in 4–5 weeks of anaemia.
- Correction also in 4–5 weeks of other deficiency symptoms (such as skin lesions, lack of strength and spirit) including in cases of severe malnutrition.
- Fast recovery after surgery with less asthenia during convalescence.
- Likewise with HIV-positive or tuberculous children.
- Agalactia lasted only 2–3 d and then milk secretion often became abundant.

The Ministry of Health of the Democratic Republic of the Congo has recognised all these positive effects and has recommended the use of lucerne leaf concentrate.

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Leaf concentrate. Undernutrition

Nourishing inmates in Malagasy prisons

Madam

The letters you have recently published from John Waterlow⁽¹⁾ and Glyn Davys⁽²⁾ prompt me to acquaint you with my own experience. I am Chief Medical Officer and Director of the Charity Medicap, whose priority is alleviation of chronic malnutrition in prisoners in the prisons of Madagascar. Since we received our first tonne of leaf concentrate late in 2003 we have been using it as an optional dietary supplement as follows.

Inclusion criteria were BMI < 18.5 kg/m² for adults or weight-for-height < 90% median weight for youths.

These calculations were made monthly and listed. When an individual reached BMI > 19 kg/m² he or she left the programme.

In June 2008, out of the total 4373 prison population, 677 were receiving concentrate. The nurse knew from the list which of the prisoners should take it. The dose is 10 g/d. The concentrate is given with a glass of water in some prisons or, in others, mixed into their meals. The daily ration for prisoners consists of 500–700 g (dry weight) of cassava (manioc) supplying about 8400 kJ/d (2000 kcal/d).

Results when leaf concentrate was added to the minimum of 500 g cassava/d:

- Weight gains of 0.5–4.0 kg for prisoners in 1–3 months, provided that the concentrate was accompanied by the minimum of 500 g of starchy staple (if the ration fell to 400 g there was failure to gain weight).
- The concentrate stimulated the appetite: the prisoners often searched for something to eat during the day.
- The mortality rate fell.
- The supplemented prisoners become more energetic and active.
- Several have ceased to suffer from vertigo.
- Disappearance of ‘night blindness’.
- Disappearance of oedema.

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Editor's note

We will be pleased to hear also from readers who have experience of the effects of concentrate made from leaves of local plants other than lucerne.