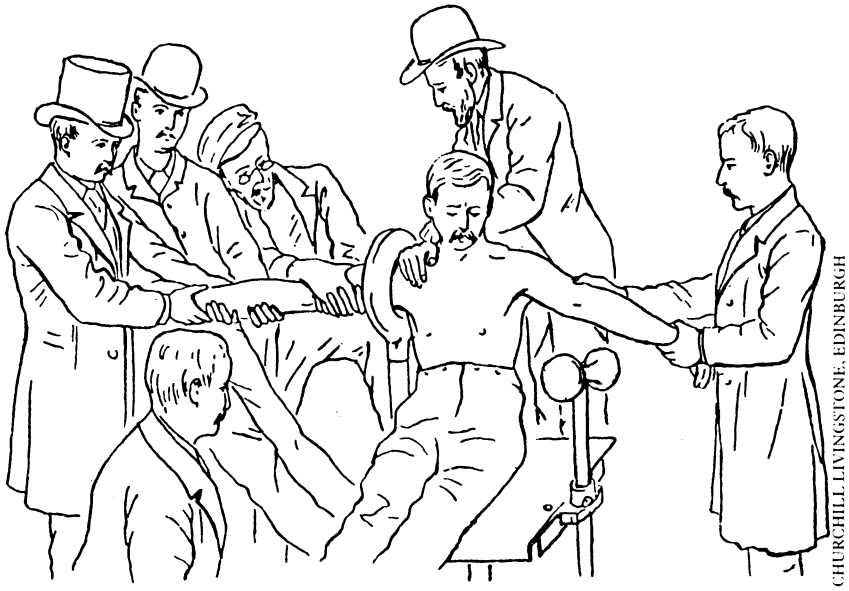

CHURCHILL LIVINGSTONE, EDINBURGH

Reduction in progress. (From the Life of Hugh Owen Thomas by David Le Vay)

Discussion

Before the advent of modern orthopaedics fractures and dislocations were the domain of the bonesetter. In the absence of anaesthetics closed reductions required considerable strength to overcome muscle spasm, and thus bonesetters were often large men, traditionally blacksmiths and farmers. Hugh Owen Thomas, though small himself, came from four generations of farmer bonesetters noted for their size. In 1887 he recorded the need for "ten large and heavy men (carters) to reduce the shoulder dislocation."[3] Other eminent orthopaedic surgeons of the time were large. Abraham Colles was described as a man of above middle size[4] and Robert Jones as a "bulky figure."[4]

The image of the orthopaedic surgeon as a man of massive bulk and strength with a low hairline who communicates with his colleagues in a series of grunts while proceeding along the hospital corridor in a succession of ape like bounds is unfair. It is a complete falsehood that as they walk their fingers trail in the dust. These views of orthopaedic surgeons derive from the early bonesetters with their lowly origins as perceived by an increasingly jealous medical profession. At the time of Evan Thomas, the father of Hugh Owen Thomas, medically unqualified bonesetters were making deep inroads with their success into a more organised medical profession. In an effort to arrest the public awe with which these men were regarded a series of libellous letters appeared in newspapers denigrating their skill and ability. In Liverpool doctors brought several trumped up cases of malpractice against Evan Thomas which were thrown out by an increasingly irritated judiciary.[4]

Interestingly, despite the change in orthopaedics, which now includes such delicate work as nerve and tendon grafting, orthopaedic surgeons are still larger than their counterparts in general surgery. Perhaps orthopaedics is still perceived as a macho specialty among those who pale at the thought of physically manipulating limbs and joints, so that only the largest trainees are encouraged to apply. This image is of course hurtful to orthopaedic surgeons, who under their larger exterior are deeply sensitive people who are kind to animals and help old ladies to cross the street. After all, orthopaedic surgeons operate not in a pool of pus and bowel contents as do general surgeons but in ultraclean laminar flow theatres with aesthetically pleasing shiny joint replacements.

Orthopaedic surgeons are indeed large, but, as Sir David Attenborough has pointed out, gorillas are among the most civilised and integrated species about.[5]

1 Krogman WM. *The human skeleton in forensic medicine*. Springfield, Illinois: Charles C Thomas, 1978.
2 Saxena SK. A study of correlations and estimation of stature from hand length, hand breadth and sole length. *Anthropol Anz* 1984;42:271-6.
3 Le Vay D. *The life of Hugh Owen Thomas*. London: Livingstone, 1952.
4 Fallon M. *Abraham Colles*. London: Heineman, 1972.
5 Attenborough D. *Life on earth*. London: Collins, 1979.

Anaphylactic reaction after eating a mango

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We describe a case of immediate hypersensitivity after ingestion of a mango that presented as an acute anaphylactic type reaction. Few such cases have been described, and none have been investigated in detail.

Case report

A 32 year old fruiterer presented with periorbital oedema, facial erythema, widespread urticaria, and dyspnoea 20 minutes after eating a fresh mango. Despite his profession this was the first time he had eaten a mango, and he had handled mangoes only once before. He had a history of atopy: he had had eczema and hay fever as a child, had been asthmatic since the age of 2 (with allergies to house dust mite and animal fur), and was allergic to penicillin. His brother and his eldest child were also asthmatic.

On examination he had considerable periorbital oedema, a swollen tongue, an urticarial rash over the arms and trunk, and tachypnoea. His pulse was 100 beats/minute, and his blood pressure was 104/72 mm Hg. Minor expiratory wheezes were heard in his chest. His abdomen and central nervous system were normal. Anaphylaxis was diagnosed; he was treated with intravenous hydrocortisone and chlorpheniramine maleate and made an uneventful recovery over the next few hours.

Prick testing with mango juice, melon juice (which he had had before without problems), and physiological saline (as a control) was performed 48 hours after presentation. The juice was extracted by syringe from fresh fruit. Mango juice (0·1 ml), melon juice (0·1 ml), mango juice diluted one in 10 in physiological saline, and a saline control were placed on the volar aspect of his forearm and pricked into the skin, taking care to avoid bleeding. The four sites were read after 20 minutes. Ten volunteer control subjects without a history of atopy and six with a history of asthma or eczema, or both, were tested in the same way to exclude a false positive reaction due to release of histamine.[1] Total IgE titre in the patient was measured by radioimmunoassay with paper discs as the solid phase and was 0·33 IU/l (normal range 0·02-0·10 IU/l). Specific IgE antibodies to mango were measured by radioallergosorbent testing. The results showed scores of 0 for mango, 2 for timothy grass, and 4 for house dust mite. The table shows the result of prick testing the patient at the four sites at 20 minutes. The mango juice produced a wheal with surrounding erythema and localised itching within five minutes. None of the controls reacted.

Allergic reaction to prick tests with fruit juice

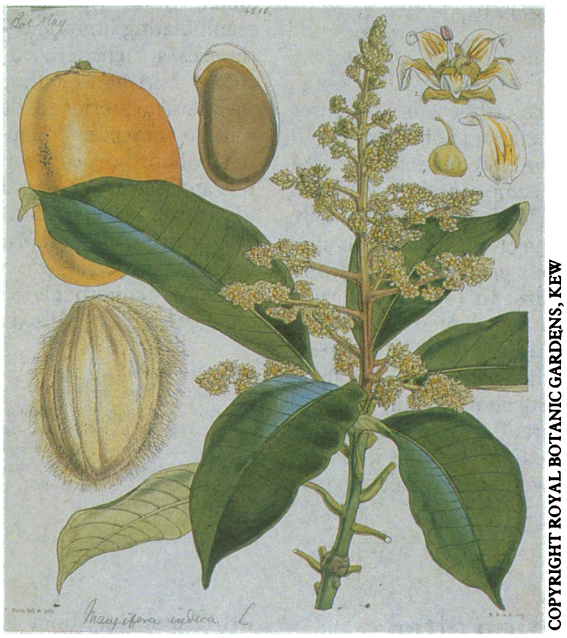
Test substance	Reaction at 20 minutes
Mango juice	2·7 cm Wheal with 5·2 cm spur and surrounding erythema
1:10 Mango:physiological saline	2·0 cm Wheal
Melon juice	0·8 cm Wheal
Physiological saline	No reaction

Comment

Mangoes belong to the family Anacardiaceae, which includes cashew nuts, pistachio nuts, hog plum, Jamaican plum, sumac, and poison ivy. The leaves, stems, and pericarp of the fruit contain uroshiol and cardol and other substances known to be sensitisers, β pinene and limonene. β Pinene and limonene are known to cause allergic contact dermatitis mediated by a type IV delayed hypersensitivity mechanism. Contact dermatitis in children after climbing mango trees has been reported, and erythematous vesicular eruptions of the lips and face after ingestion of mango skin were first described in 1939.[2] Our patient, however, probably had a type I immediate hypersensitivity reaction despite the negative result of the radioallergosorbent test. An anaphylactic reaction to ingestion of fruit is rare, though urticarial reactions after ingestion of strawberries, oranges, and tomatoes are well known and the same reactions to exotic fruits such as kiwi fruit and pawpaw have also been described. We found only two reports of anaphylactic reaction after ingestion of mangoes.[3,4]

Immediate hypersensitivity is presumed to be mediated by IgE and seems to be more common in atopic people. A second mechanism caused by short term anaphylactic antibodies of type IgG4 has been described,[5] but in association with contact urticaria rather than generalised anaphylaxis, and contact sensitisers are probably different from those causing an IgE response. The negative result of the radioallergosorbent test in this case may have been due to lack of sensitivity of the test rather than anaphylaxis mediated by another class of immunoglobulin (R H Champion, personal communication).

This case is interesting as the patient was a professional fruiterer, and despite having eaten many exotic fruits such as kiwi fruit, pawpaw, lychees, and muscadines, he had never eaten mangoes or other members of the Anacardiaceae before. He had a history of atopy, and several cases of anaphylaxis related to food have been reported in people with atopy. Reactions to exotic fruits are rare in the northern hemisphere, but with increasing importation of unusual food they may become more common. Eating unusual food should be considered as a cause of anaphylaxis or milder allergic reactions, and the allergen should be identified so that it may be avoided.



Mangifera indica, the mango

We thank Dr M Davies, consultant dermatologist, Plymouth General Hospital.

1 Douglas HMG, Nater JP. Histamine in foods causing false positive scratch tests. *J Allergy Clin Immunol* 1968;42:164-7.
2 Zakon SJ. Contact dermatitis due to mango. *JAMA* 1939;113:1808.
3 Rubin JM, Shapiro J, Muehlbauer P, Grolnick M. Shock reaction following ingestion of mango. *JAMA* 1965;193:397-8.
4 Dang RW, Bell DB. Anaphylactic reaction to the ingestion of a mango. *Hawaii Med J* 1967;27:149-50.
5 Pigatto PD, Riva F, Altomare GF, Parotelli R. Short-term anaphylactic antibodies in contact urticaria and generalized anaphylaxis to apple. *Contact Dermatitis* 1983;9:511.

Rat catcher's warfarin treatment associated with rectal haemorrhage

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We report on a patient who developed rectal bleeding after self treatment with warfarin.

Case report

A 66 year old retired pest controller was admitted after presenting to casualty with rectal bleeding of acute onset. On examination he had a low rectal tumour. A biopsy confirmed carcinoma, and he was treated by abdominoperineal resection two weeks after his initial presentation. Postoperatively he admitted to a sequence of events that he had previously withheld. He had developed dizzy spells three weeks before his presentation and thought that these indicated a likely stroke. To lessen the chances of this event he started to treat himself with warfarin from stocks of rat poison that he had kept after his retirement; on alternate days he dipped his wet finger into the powder and then sucked it. He stopped the treatment as soon as the rectal bleeding began and was wary of admitting to it on presentation. His prothrombin time was not measured on admission but was normal by the time he had confessed to his therapeutic endeavours.

Comment

Anticoagulation may cause bleeding from several sources if not correctly regulated. Poisoning with unprescribed warfarin is not uncommon. We think that this set of circumstances is unusual; in view of the lack of proof of a prolonged prothrombin time we assume that his ingestion of warfarin precipitated the rectal bleeding. His wife subsequently destroyed all remaining stocks.