

Table I Results of dietary restriction

	Adults	Children
Cessation of attacks	14	76
Reduction > 80%	22	86
Reduction > 50%	38	42
No response	142	44
Total	216	248

eliminated from their diet. In those with favourable responses, chocolate was the chief provocative dietetic factor in 90% of both groups, cheese in 30% (with some 20% as an additional factor), and citrus fruit in some 10% again with occasional double sensitivity. Alcohol was responsible in 8% of the adults, with isolated instances only implicating bananas and beans. No other form of prophylactic therapy was administered concomitantly. Results were recorded as either cessation of attacks, reduction of over 80%, over 50%, or as no response (Table I), and are summarized as favourable in 82% of children as against 34% of adults.

We have no clear explanation for this disparity, beyond suggesting that in adults, factors additional to food allergy, such as psychological stress or perhaps hormonal influences may also play a prominent role in the precipitation of attacks. Sex differences seemed not to be involved in the outcome.

Monel M. Berg
Jackson Braham¹
*Neurological Out-Patients Clinic,
Leumi Sick Fund, Tel-Aviv,
and ¹Neurological Department,
Sheba Medical Centre,
Tel Hashomer,
Ramat-Gan,
Tel Aviv University Medical School, Israel.*

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Barium carbonate, hypokalaemic paralysis and trismus

Sir,

Barium carbonate, a rodenticide being used in this part of the world, causes hypokalaemic paralysis.¹ I report a patient who developed trismus, which is a hitherto unreported manifestation of this poisoning. It was associated with hypokalaemia and flaccid quadriparesis.

A 28 year old man was admitted with a history of ingestion of barium carbonate followed by vomiting. About 12 hours later, the patient developed gradually progressive quadriparesis with difficulty in speech and swallowing. Examination revealed a bulbar palsy and flaccid quadriparesis; the lower limbs were affected more severely than the upper. Blood pressure was 110/70 mmHg.

About 20 hours after ingestion, the patient developed trismus. There were no involuntary movements or convulsions. The neck muscles were not involved. The patient could not talk. Cranial nerve examination revealed only bulbar palsy. Percussion myotonia was absent. There was no sensory deficit on the face. Four hours later, the trismus disappeared along with recovery of the weakness of the limbs. The patient made an uneventful complete recovery. During his stay in hospital, he was given parenteral potassium chloride, magnesium sulphate and supportive treatment, such as intravenous fluids and supplemental oxygen.

Investigations revealed that haemoglobin, blood urea, sugar, creatinine and sodium were within normal limits. Serum potassium was 2.14 mmol/l at the time of weakness. Electrocardiogram showed T-wave inversion in inferior leads and V₁–V₃. Chest X-ray was normal.

Barium salts block potassium channels and thereby reduce potassium efflux from the muscle; potassium uptake by muscle, mediated by the sodium potassium pump continues and hypokalaemia results.¹ An increased sodium conductance may also result in hypokalaemia. The hypokalaemia causes a flaccid quadriparesis.

Myotonia is a transient uncontrollable muscle tension during voluntary muscle contraction. The tension is caused by inability of skeletal muscle to relax normally. Bryant and Lipicky² found chloride conductance to be decreased in myotonia congenita. More recently, abnormalities in ion channels have been found in one form of myotonia congenita, myotonic dystrophy and in several forms of periodic paralysis.⁴ There is current evidence to suggest that potassium-sensitive periodic paralysis and myotonic disorders are the result of single base-pair changes in the α -subunit of the skeletal muscle sodium channel gene.⁴

Although myotonia of jaw muscles has not been reported with barium carbonate poisoning, there is a reference to eyelid myotonia with hypokalaemic periodic paralysis.⁵ In fact, until 1985, there were only two cases of hypokalaemic periodic paralysis – familial primary or thyrotoxic in which myotonia was described.^{6,7} I surmise that trismus may be a manifestation of localized myotonia due to secondary periodic paralysis (hypokalaemic) as a result of barium carbonate, since both myotonia and periodic paralysis are dependent on ion-sensitive channels (which may have a genetic predisposition).

Sanjay Gupta
*Department of Medicine,
Dr Ram Manohar Lohia Hospital,
New Delhi-110001, India*

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Anatomy—tragic or comic muse?

Sir,

Introduction

There is one matter about which medical students and their loved and loving teachers are of a single mind: anatomy courses (sometimes paradoxically described as the teaching of human anatomy) have but one purpose—to generate inconsolable weeping. Our present investigation, which has been conducted under the influence of *acres humores*, is devoted to clarifying the hitherto unexplained pathogenesis of this phenomenon.

Materials and methods

As with all anatomical research, this inquiry has been carried out with a precision which would make Occam's razor look like a blunted butter knife. The author sat for 9 and 30 years under the most eminent professors in the greatest universities in the world in order to establish the incontrovertible truth of his observations. At no time was the objectivity of his investigation sullied by the slightest hint of vulgar personal academic success. The flowers culled as a result of this devotion constitute the substance of the present communication, or—to put it more crudely—the results.

Results

1. Introduction to the subject

Anatomy is beyond all discussion by far the most important science in the medical curriculum: doctors lacking anatomy are like moles; they toil in the dark and the fruits of their labours are—mounds of earth!

2. Single examples concerned with regional anatomy

The head can be subdivided into two main regions: the neurocranium, which contains the brain, and the viscerocranium, housing the upper end of the alimentary canal.

Translated into the student vernacular these become 'think-box' and 'nosh-hole'.

The classical work on the soft tissue coverings of the cranium was completed in North America before the turn of the century. Five layers are recognized: S (skin), C (connective tissues), A (aponeurosis), L (loose connective tissue) and P (periosteum).

A large portion of the gut is said to be intraperitoneal. That does not imply that, when the abdominal cavity is laid open, the uncovered gut is immediately extruded. Never forget that: in general, nothing is to be found within the peritoneal cavity except a thin film of fluid (less commonly, a pair of surgical scissors; only rarely, an undersized theatre nurse).

Amongst a host of other bony excrescences, the pelvis possesses a pubic tubercle. Is it possible that Sigmund Freud was inspired to write *The Psychopathology of Everyday Life* after hearing one of his students refer to it as the 'public tubercle'?

The vagina lies between the urethra and rectum. It therefore cannot be gainsaid that: we come into the world between urine and faeces (an observation that has been immortalized with greater lyricism by at least one renowned poet. In a less respectable journal than this it could be expressed even more succinctly).

Unlike that of the foot, the dorsum of the hand contains no fleshy muscular tissue. The following recommendation is self-explanatory: a cannibal who buys a cut from the back of the hand must starve. He should have bought a sirloin of foot.

The tendons of three muscles pass behind the medial malleolus, but the fleshy belly of only one of them reaches the ankle region. Thus: the beef in the heel (N.B. the author is not, unfortunately, sponsored by McDonalds).

3. On professors of anatomy

During a viva the candidate showed himself unable to identify the various regions of the alimentary canal: 'And how', the examiner inquired, 'do you expect to become a doctor without carrying the gut in your head?'

One possible way, among many, of bringing an anatomy lecture to a satisfactory conclusion: A good lecture is like a miniskirt: short enough to arouse interest, but long enough to hide all the essentials.

Conclusions

Our conclusion is as startling as it is irrefutable: the floods of tears would seem to be those of pleasure, joy and laughter. The anatomist is, it appears, a hedonist!

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J.H.D. Fasel
 Department of Morphology,
 Centre Médical Universitaire,
 1 Rue Michel-Servet,
 CH-1211 Geneva 4, Switzerland.

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