notable exceptions, clinicians and, let us say, molecular onco-
logists are becoming more and more distant from one another,
and with little common language. But surely two cultures are
the last thing we want in biomedical sciences.

There are a few branches of medicine, some the concern of
your own institutes, where specialised knowledge of some
aspects of cellular and molecular biology will automatically be a
part of the trade; obviously, for example, in cancer research,
also in neurology and in paediatrics, where a knowledge of
genetics will be needed, or in other specialties where immunity
is important. But we must admit that for most specialised
branches of medicine a knowledge of recent advances in biology
is not of paramount importance. The nucleotide sequence of a
cancer gene, for example, will not at present help anyone to
help or treat a patient with cancer.

So when there is so much to learn to maintain a high pro-
fessional standard why bother about basic biology? For a large
proportion of clinicians we must admit that it will make very
little difference. But the leaders of the profession, and especially
the teachers, will be in serious trouble if they fail to acquire a
knowledge of the new concepts in the basic sciences. In ten or
20 years' time medicine will be vastly different, not just because
of computers and robots. Then it probably will be necessary to
know about terminal amino-acid sequences and stop codons and
such like, because, who knows, you may need to write
these into your prescriptions. And make no mistake, the young
medical student coming through in these future years will have
all this at his fingertips. Being ignorant of the new biology then
would be like managing the treatment of an infectious disease
without knowledge that bacteria and viruses exist. Moreover,
the leaders of the profession, many of whom I hope will still
emerge from the network of the Postgraduate Medical Federa-
tion, should be in important positions for influencing decisions
on strategy and tactics in future medicine and medical research.
In such influential positions a wide and up-to-date view of the
scientific basis of medicine is required.

It is for this reason that I have always so much admired the
Federation's series on the scientific basis of medicine. Looking
back on this series over the years one sees now that it has covered
much of the exciting new biology that I have been discussing
and which is going to change our lives. Whatever the future
holds for postgraduate education in medicine I hope that this
type of education for doctors will be expanded and developed
further. Meanwhile the series shows the vision and wisdom of
the leaders in the federation. It is no accident that it began under
Sir Francis Fraser, and it is a fitting tribute on which to close.

---

**SHORT REPORTS**

**Beware the bay leaf**

Two cases of unusual foreign body ingestion requiring endoscopic
removal are presented.

**Case reports**

*Case 1*—A 77-year-old man with a history of pharyngeal pouch for several
years suffered symptoms of fullness and persistent aching in the region of the
pouch after eating the Moroccan dish *tarjin*. The pouch failed to empty, and
two months later at endoscopy under general anaesthesia a bay leaf was
removed. There was mild inflammation of the mucosa.

*Case 2*—A 61-year-old man was eating *pâté* and felt something stick in
his throat. He thought this was metallic but no radio-opaque foreign body
was seen on plain X-ray film. At endoscopy under general anaesthesia a bay
leaf was found stuck in the hypopharynx.

**Comment**

The bay laurel (*Laurus nobilis*) is an evergreen shrub whose leaves
were used in classical times to make wreaths for crowning the
victorious. The leaves are 5-10 cm long with a wavy edge (figure),
which may explain their tendency to adhere to the mucosa of the
pharynx.

Bay leaves are commonly used as flavouring for puddings, stews,
and other dishes. *Tarjin*, a popular Moroccan dish, is a stew
that simmers all day over a very slow heat, the ingredients being left much
to the cook's imagination. There is a meat constituent and a concen-
trated stock which contains plenty of butter, oil, and herbs, in which
bay leaves usually abound. It should be served in a vessel of glazed
eartheware.

In the first case a bay leaf remained unchanged for a long period
within a pharyngeal pouch and caused mild symptoms of inflammation.
The patient was reluctant to undergo operation, and so the foreign
body was removed by endoscopy. Endoscopy also showed that there
had been no malignant change in the mucosal lining. As the patient
intended to return to Morocco he was advised to eat *tarjin* in the
traditional manner, using fingers to dip the meat in the soup, and so
avoiding further bay-leaf ingestion.

Conquerors have been crowned with laurel, perhaps leaving the
vanquished to console themselves with soup flavoured with bay.
Without care they may have not seen the end of their troubles.

*(Accepted 25 July 1980)*

ENT Department, St Thomas's Hospital, London SE1
A N JOHNSTON, FRCS, senior registrar

---

**Outbreak of botulism in Kenya after ingestion of white ants**

Six cases of botulism, five of them fatal, occurred in Kenya in October
1979. The contaminated food was a collection of termites (order
Isoptera), commonly known as white ants. These are considered a
delicacy by several tribes in Kenya. They are collected as they emerge,
en masse, from the soil to make their nuptial flights when suitable
conditions of humidity and temperature prevail. They are rich in
protein and fat and have been considered as an exploitable food source.
All patients (five from the Luhyia tribe, and one Luo) ate the white
ants, either raw or fried, at a meal in Nairobi three days after they had
been collected in Kakamiga, 400 kilometres from Nairobi. Some of
the ants had been eaten fresh by about 12 people in Kakamiga, none of
whom fell ill. The remaining ants were transported to Nairobi by one
of the patients (case 2) in a closed polyethylene bag. From the history (obtained from the patient in case 6) none of the patients had eaten any food other than the ants and staple unpreserved foods such as maize and vegetables.

Case reports

(1) A 29-year-old woman presented 36 hours after the meal of ants, having complained of blurred vision, dizziness, and abdominal cramps the previous day. She was drowsy, generally weak, but with normal vital signs. She soon required intubation and then artificial ventilation as her respiratory efforts were clinically considered inadequate for satisfactory pulmonary ventilation. In view of the possibility of poisoning gastric lavage was performed. Later that day she improved, became fully conscious, and breathed spontaneously for several hours. She then deteriorated again, becoming flaccid and areflexic with fixed, dilated pupils, but she was still able to move her fingers slightly on command. Laboratory investigation results were normal, including an electroencephalogram and serum cholinesterase concentrations. Botulism was suspected four days after admission. Supportive treatment was continued until she died 14 days after admission of bronchopneumonia, confirmed at necropy.

(2) A 31-year-old man presented two days after the first patient. He had taken a second meal of the ants the previous day to prove to others that he had not added poisons to them. His illness followed a similar course to that in case 1 and 12 days after admission he also died of bronchopneumonia.

(3) A man presented in a moribund state two days after the meal of ants and died in the casualty department.

(4, 5) Two men, feeling unwell the day after the meal of ants, returned to their rural homes, where they soon died.

(6) The sixth patient was a man who had only blurred vision for two weeks.

When botulism was suspected food samples were sought and the polyethylene bag, with some remaining ants, was obtained. Cultures from these grew Clostridium botulinum. Two groups of mice were fed on the ants, one group being protected by tetradant antitoxin. The protected group survived. The unprotected group died, confirming botulism 10 days after the first patient was admitted. Facilities for detecting botulism toxin in patient samples were unavailable. Antitoxin was not given, because of the late presentation and diagnosis, nor was guanidine, because of the severity of the paralysis.

Comment

Botulism is an intoxication, the toxin being formed under anaerobic conditions in food containing spores of Cl. botulinum, an organism fairly widely distributed in soil. Meat products, home-canned vegetables, and fish are commonly responsible. This outbreak in Kenya was due to eating white ants, a common food source, after their storage in anaerobic conditions. Unrecognised outbreaks may be occurring in East Africa. There is a need for further epidemiological study.


(Accepted 11 March 1980)

Kenya National Hospital, University of Nairobi, Nairobi, Kenya
K W NIGHTINGALE, FFRCS, DTMH, lecturer in anaesthetics
E N AYIM, MD, professor of anaesthetics

Unusual cause of gnawing pain in the hand

A rare complication of a hand injury resulted from penetration of the deep tissues and the initially unsuspected presence of a large foreign body.

Case history

During a fiercely contested game of rugby football the patient, when vigorously fending off an opponent, injured his right flat, lacerating the skin over the dorsum of the third metacarpophalangeal joint. He played on. Later the tiny wound was cleaned and dressed in the local casualty department, whence he was discharged. The wound healed, but over the next 17 months it repeatedly broke down to form a discharging sinus, a complication which was controlled with courses of antibiotics. Finally, he was referred to an orthopaedic clinician complaining of pain in the knuckle and recurring sinus formation. Examination then showed a stiff third metacarpophalangeal joint (which flexed from 5 to 45 degrees) and a small sinus in the centre of an area of erythema on the dorsal side of the joint. Cultures from the sinus grew...

Staphylococcus aureus. A radiograph showed partial collapse of the head of the third metacarpal and a large sequestrum within it (figure). At exploratory operation half of an incisor tooth (figure inset) was removed from inside the metacarpal. The sinus healed, and for a small area of scale the tooth appeared healthy. After adequate excision the wound healed and, apart from residual stiffness in the joint, the patient had no more trouble.

Comment

Human biting injuries of the hand, whether deliberate or accidental, are common and teeth are often broken as a consequence. Many such injuries have been reviewed4 and the metacarpophalangeal joints are often affected, usually as a result of a punch to the open jaw. Such injuries are sustained with metacarpophalangeal joints flexed. If the hand is examined with the joints extended the skin wound and the site of penetration of deeper structures are then at different levels. This probably explains why our patient's full injuries were not appreciated when he sustained them.

Although cellulitis, septic arthritis, osteomyelitis, compound fractures, and death from septicaemia are all described complications of such biting injuries, only osteomyelitis was an important problem in our case, and this settled with appropriate treatment. We can find no other report of a tooth not only deeply penetrating bone but actually breaking off and remaining there unsuspected. It should be emphasised that accurate clinical diagnosis of such an injury can be obtained only if the casualty surgeon examines the hand in the position in which it sustained the injury.