

the sleep,<sup>7</sup> though sometimes the attack passes on to paradoxical sleep with later description of dreaming and paralysis.<sup>8</sup> The incidence of sleep paralysis and of cataplexy can be controlled by those tricyclic antidepressant drugs that suppress paradoxical sleep, particularly chlorimipramine and imipramine. Dosage of 50-100 mg daily should be adjusted to the individual. Unfortunately these drugs do not prevent the sleep attacks of narcoleptics and should not be used concurrently with amphetamine.

Most ordinary nightmare dreams occur during the usual dream-sleep periods, that is in paradoxical sleep with its associated paralysis. A few, however, occur as sudden events in the other kind of natural sleep, namely, orthodox sleep (which occupies about 75% of the night) and do so when it is in its deepest stage. From this same stage sleep-walking also has its origins. A study of these nightmares has lately been reported by C. Fisher and colleagues,<sup>9</sup> who found it possible sometimes to provoke them by abruptly rousing the patient. Whether spontaneous or provoked they were characterized by brief, overwhelming terror, very little phantasy content, and often by major bodily movements or sleep-walking, with mental confusion and subsequent amnesia. When these night-terrors occur in childhood the disorientated child usually recalls nothing of them in the morning, a fact which may console the alarmed parents.

Experiments on cerebral electrical responsiveness suggest that this kind of nightmare (sometimes called an incubus) may be really a disorder of the arousal mechanism.<sup>10</sup> Brain anxiety- and alertness-mechanisms usually parallel one another, and drugs that diminish anxiety also reduces alertness. It seems as if separate brain mechanisms for anxiety-arousal and wakefulness-arousal may be suddenly activated together yet get badly out of step and cause the night-terror. A period of treatment with diazepam, which prevents the deepest orthodox sleep and also reduces anxiety, has been found to alleviate these night-terrors in those rare adults for whom they are recurrent events.<sup>11</sup>

<sup>1</sup> Mack, J. E., *Nightmares and Human Conflict*. Little, Brown and Company, Boston, 1970.

<sup>2</sup> Jouvet, M., *Archives Italiennes de Biologie*, 1962, 100, 125.

<sup>3</sup> Oswald, I., *Lancet*, 1962, 2, 935.

<sup>4</sup> Ceroni, G. B., Lugaresi, E., and Pazzaglia, P., *Rivista Sperimentale di Freniatria*, 1969, 93, 950.

<sup>5</sup> Evans, J. I., and Oswald, I., *British Journal of Psychiatry*, 1966, 112, 401.

<sup>6</sup> Hishikawa, Y., and Kaneko, Z., *Electroencephalography and Clinical Neurophysiology*, 1965, 18, 249.

<sup>7</sup> Rechtschaffen, A., and Dement, W., *Research Publications, Association for Research in Nervous and Mental Disease*, 1967, 45, 488.

<sup>8</sup> Scollo-Lavizzari, G., *European Neurology*, 1970, 4, 57.

<sup>9</sup> Fisher, C., Byrne, J., Edwards, A., and Kahn, E., *Journal of the American Psychoanalytic Association*, 1970, 18, 747.

<sup>10</sup> Broughton, R. J., *Science*, 1968, 159, 1070.

<sup>11</sup> Fisher, C., Kahn, E., Edwards, A., and Davis, D., *Psychophysiology*, 1971, 8, in press.

## Thorns in the Bone

Four to sixteen weeks or so after a penetrating wound from a thorn the injured person may develop a painful swelling at the site of the trauma. The tumour is not warm or red, there is no lymphadenopathy or leucocytosis, and the patient is afebrile. Because of the length of the quiescent period before the secondary manifestations develop the causative accident may have been forgotten. X-ray examination shows a lesion in the underlying bone in the form of an osteolytic or a periosteal reaction.<sup>1</sup>

These pseudotumours of bone after penetration by a thorn occur mainly in children and mostly in a hand or foot, though two cases of lesions in the fibula have been recorded.<sup>1</sup> Only eight cases in all have been reported, but that might not be the true incidence since medical advice may not have been sought for the primary injury or the cause recognized then or later. Thorns are radiolucent, and until bony changes occur x-ray examination is negative.

It is not known why the changes in the bone occur. It is reasonable to suspect an inflammatory reaction to infection to be the cause, but on only one occasion has there been a positive bacteriological culture to support the theory. The histology is merely that of a non-specific granulomatous reaction. Most organic foreign materials when embedded in or near bone do not evoke enough response in the neighbouring osseous structures to be recognized radiologically.<sup>2</sup> Then why this reaction to thorns—not just one type of thorn but several? Perhaps a thorn releases a toxin which is the causative agent. This hypothesis has yet to be proved.

All but two of the thorn-induced pseudotumours reported by R. D. Gerle<sup>1</sup> showed both osteolytic and periosteal reaction. The osteolytic changes were cystic, with clear, often sclerosed margins and a benign appearance. The periosteal reactions, on the other hand, were difficult to differentiate from malignant tumours. One, in the fibula, was indistinguishable from an Ewing's sarcoma. Biopsy revealed the true nature of the lesion. Osteosarcoma and osteoid osteoma are also mimicked. A child presenting with a swollen, painful lesion on a hand or foot which does not show the classical signs of acute inflammation must arouse suspicion of the presence of a thorn. Once the diagnosis is made cure is easily achieved by surgical exploration, removal of the thorn, and primary closure of the wound. Within a few months the bone is radiologically normal.

<sup>1</sup> Gerle, R. D., *British Journal of Radiology*, 1971, 44, 642.

<sup>2</sup> Bunnell, S., *Surgery of the Hand*, 3rd edn., Philadelphia, Lippincott, 1956.

## Taste and Smell

Taste and smell usually go together. Gastronomic delights and the enjoyment of nature are taken for granted until a common cold interferes with normal smell. Patients with temporal lobe seizures may complain of a distortion of the senses of smell or taste during the attacks or as part of the epileptic aura. This interruption of a normal sensory function is short-lived, but in cases of head injury with fractures through the anterior fossa on either side of the ethmoid bone there may be more permanent loss of smell and consequent disturbance in taste appreciation.

The senses of smell and taste may also be disturbed without any history of trauma to the head, and a new syndrome has been proposed under the title of "idiopathic hypogeusia, hyposmia, and dysosmia".<sup>1</sup> The authors of the report, R. I. Henkin and colleagues, of the National Institutes of Health, Bethesda, have collected 35 cases of disordered taste sensibility, including a decrease in acuity and obnoxious, perverted appreciation of food and drink. The distortion in taste included persistent saltiness, sweetness, sourness, bitterness, and metallic tastes. It occurred without food and could not be relieved. Other symptoms, not always present, included a persistent foul smell, vertigo, impairment of hearing, loss of

libido, and hypertension. The authors compare these symptoms with those encountered in hepatitis<sup>2</sup> and in the first three months of pregnancy.<sup>3</sup> They suggest that the cause may lie in a disturbance of trace metals<sup>4</sup> and report that treatment with orally administered copper, zinc, or nickel has resulted in the return of taste to normal.<sup>4 5</sup>

The patients ranged in age from 34 to 68 years, and half of them had a preceding infection of the upper respiratory tract. The authors used different dilutions of the salty, sweet, bitter, and sour solutions to test taste. As an objective measurement of smell they used pyridine in water and nitrobenzene and thiophene in mineral oil in various concentrations. Three case histories given show that the obnoxious taste and smell of food caused the patients to lose 10-30 lb (4.5-13.6 kg) in weight. The authors describe pathological changes in the pore region of a taste bud, where they found fewer neurosecretory granules than normal, larger vacuoles, and more highly vesiculated cells but loss of cytoplasmic projections. These histological changes lend support to the proposition that a disorder with a distinct pathology is the explanation of these unpleasant symptoms. Henkin and colleagues report that they know of at least 3,000 sufferers from this complaint, and they are engaged in a double-blind trial of zinc given by mouth to try and confirm their initial favourable results.

<sup>1</sup> Henkin, R. I., Schechter, P. J., Hoyer, R., and Mattern, C. F. T., *Journal of the American Medical Association*, 1971, 217, 434.

<sup>2</sup> Henkin, R. I., and Smith, F. R., *Clinical Research*, 1970, 18, 382.

<sup>3</sup> Kirsner, J. B., and Van Woert, M., in *Obstetrics*, ed. J. P. Greenhill, p. 536. Philadelphia, W. B. Saunders, 1960.

<sup>4</sup> Henkin, R. I., Graziadei, P. P. G., and Bradley, D. F., *Annals of Internal Medicine*, 1969, 71, 791.

<sup>5</sup> Henkin, R. I., and Bradley, D. F., *Life Sciences*, 1970, 9, 701.

## Future of British Psychiatrists

This year on 16 June a new royal college began its existence, under unique circumstances. For nearly a century and a half the Royal Medicopsychological Association (R.M.P.A.) had been in existence as a vigorous scientific and professional society to which most British psychiatrists belonged, no matter what their grade or place of work. Psychiatric hospitals are scattered across the British Isles, and the number of doctors working in them and in other newer psychiatric facilities makes psychiatry one of the biggest specialties in medicine. The R.M.P.A. had done pioneer work in providing courses of lectures and in holding examinations for a diploma long before there was a professor of psychiatry in any medical school, and its regional organization had brought psychiatrists together regularly for scientific and -social gatherings in different provincial hospitals. But in the field of training its efforts had not kept pace with a growing need. It was widely recognized that psychiatric knowledge and practice varied greatly from place to place, and that a considerable number of new psychiatrists were growing up more or less self-taught through lack of guidance and teaching.

For these reasons the leaders of the R.M.P.A., with the general approval of its membership, resolved to turn the association into a college, which would hold regular examinations for a membership and set a new higher standard of knowledge throughout British psychiatry, with improved

training facilities. Of course, such a membership, and even more the Fellowship, would be valued only if some effort was needed to gain it and if its possession led to professional advancement. This plan posed two principal problems from the outset: firstly, how to fit the members of a society previously open to almost anyone on payment of a fee into the normal structure of a college; secondly, how to start holding a membership examination of high standard to select future members without being unfair to those who had had little access to training or who worked in some particular subspecialty.

Any solution to the first problem was bound to upset some R.M.P.A. members, who would then feel that they had been wrongly graded and deprived of their rights. The solution to the second problem had not merely to avoid being unfair to a particular group, but to avoid becoming a weapon with which the seniors could control the juniors, or denude the Health Service of consultants—results which might destroy the new college's reputation instead of raising standards.

Mid-June is not an ideal time of year to begin a new royal college. There was a vast burden of administrative work to get through during the summer, firstly in deciding who the foundation members and Fellows, council, and president would be, so that the college could be called together, and secondly in setting the new examinations going without delay, to show junior psychiatrists in good time what would be expected of them, as well as to satisfy the charter. The Fellows were mostly consultant psychiatrists of twelve or more years' standing, the new members the younger consultants, and the court of electors was kept very busy examining the credentials of others and considering appeals from yet others for the grant of foundation membership. A wave of dismay began to spread, particularly among senior registrars, when appeals were rejected and it was seen that many would have to sit yet another examination, the new membership, whose entrance fee was £60.

This intensified when it was announced that the new examination could begin in November and February and cover a wide range of subjects. An Association of Psychiatrists in Training sprang into being, with the aim of protecting the interests of junior psychiatrists. Periods of rapid change are always times when anxieties mushroom. Suspicions and rumours began to increase and all seemed set for a big explosion of feeling.

Last week the new college met for the first time. It had a newly elected president in Professor Martin Roth of Newcastle upon Tyne and a newly elected council containing many new men, voted in by the foundation members and Fellows. The college proceeded to show that it was prepared to compromise, to evolve, and not to be bound by the decisions of the previous caretaker administration. The President announced that five independent Fellows would examine appeals from adverse decisions of the court of electors, and the assembled foundation members and Fellows voted to make themselves pay the examination fees for the membership examination they did not have to sit so that the applicants who did have to sit it would not feel at a financial disadvantage. At a special meeting on 19 November representatives of the Association of Psychiatrists in Training stated their objections to the new examinations, heard explanations of their nature and costing, and in a sympathetic atmosphere accepted in large measure the college's genuine willingness to review and revise its plans as it develops in the coming months.