

to be abnormal, it will probably be less so than in vitamin-K deficiency, but will be associated with thrombocytopenia, fibrinogen deficiency, and probably with the presence of fibrin degradation products in the plasma. Vitamin-K therapy will be without avail, and exchange transfusion with fresh heparinized blood offers the best hope of success.

Now that these two chief types of haemorrhagic disorder of newborn infants have been clearly distinguished, it can be seen that simple deficiency of the vitamin-K-dependent factors can be virtually eliminated by the parenteral administration of as little as 100 µg of vitamin K, immediately after birth. The adoption of this policy would have the additional advantage, by eliminating one type of haemorrhagic disorder, of facilitating the rapid diagnosis of the other.

- <sup>1</sup> Dam, H., Glavind, J., Larsen, E. H., and Plum, P., *Acta Medica Scandinavica*, 1942, 112, 210.  
<sup>2</sup> Sutherland, J. M., Glueck, H. I., and Gleser, H., *American Journal of Diseases of Children*, 1967, 113, 524.  
<sup>3</sup> Keenan, W. J., Jewett, T., and Glueck, H. I., *American Journal of Diseases of Children*, 1971, 121, 271.  
<sup>4</sup> Townsend, C. W., *Archives of Pediatrics*, 1894, 11, 559.  
<sup>5</sup> Aballi, A. J., and De Lamerens, S., *American Journal of Diseases of Children*, 1962, 104, 475.  
<sup>6</sup> Boyd, J. F., *Archives of Disease in Childhood*, 1967, 42, 401.  
<sup>7</sup> Edson, J. R., Blaese, R. M., White, J. G., and Krivit, W., *Journal of Pediatrics*, 1968, 72, 342.  
<sup>8</sup> Skyberg, D., and Jacobsen, C. D., *Acta Paediatrica Scandinavica*, 1969, 58, 83.  
<sup>9</sup> Chessells, J. M., and Wigglesworth, J. S., *Archives of Disease in Childhood*, 1970, 45, 539.  
<sup>10</sup> Chessells, J. M., and Wigglesworth, J. S., *Archives of Disease in Childhood*, 1971, 46, 253.  
<sup>11</sup> Chessells, J. M., and Wigglesworth, J. S., *Archives of Disease in Childhood*, 1971, 46, 38.

## Aetiology of Bell's Palsy

The facial nerve is the most frequently paralysed nerve in the body. Ever since Sir Charles Bell in 1821 established that the muscles of facial expression were under the control of a separate cranial nerve his name has been associated with all forms of facial palsy. Over the years other causes such as trauma, infection of the middle ear and mastoid bone, geniculate herpes, tumours along the intracranial roots, acoustic neuroma, stroke, and sarcoidosis have been recognized as causes of facial palsy. When these causes are not found the condition is referred to as idiopathic or Bell's palsy, and these cases constitute the vast majority.<sup>1 2</sup>

From recent reports<sup>3</sup> on facial paralysis by H. M. El-Ebiary it would seem that there is a geographical variation in its prevalence. He has reported a clinical study of 580 cases of facial paralysis seen over a period of 12 months, over 90% of them diagnosed as Bell's palsy. The cases were seen in the department of physical medicine at the University Hospital in Alexandria covering a population of one and a half million people. He found the condition twice as common as in Cairo and 20 times that of a London teaching hospital. Though these figures are not strictly comparable, and it is not clear whether these are isolated figures for one year, the incidence is certainly very high.

The cause of paralysis, whether due to vasospasm after exposure to cold or draughts,<sup>4</sup> vascular insufficiency and secondary ischaemia,<sup>5-7</sup> or some form of viral infection,<sup>8 9</sup> is unknown. Pathologically it seems likely that oedema and subsequent compression of the nerve trunk within the rigid, bony fallopian canal owing to circulatory disturbance is a most likely cause. El-Ebiary's evidence is against the theory

of vasospasm due to exposure to cold or draughts, as he found that only 5.4% of his patients gave a history of exposure to cold and the highest incidence of the disease was in the warm autumn months from August to December, the peak being in December. The age and sex of his patients differed from those in other series.<sup>7 10</sup> He found that the disease was more frequent in the first two decades of life than later and that females, who usually stay indoors, were affected more frequently than males. From the study of his 528 cases of Bell's palsy and from comparing them to other series he postulates that the cause is infection, resulting from either bathing in polluted sea water or droplet transmission. The lesion might be due, he suggests, to a specific infective neuritis or to spread of inflammation from a latent, non-suppurative otitis media, and considers that the high incidence of the disease in younger patients, who are prone to upper respiratory and middle-ear infections, further supports his theory. However, no clinical, bacteriological, or radiological evidence is offered at present to support it.

Other authors have also favoured the theory of infection. Sir William Gowers,<sup>4</sup> discussing Bell's palsy, said "neuritis is the cause of the common facial paralysis due to cold and often termed rheumatic." G. A. Dalton<sup>8</sup> found evidence that some cases of Bell's palsy are due to zoster infection. U. Leibowitz,<sup>9</sup> reporting a large series also from the Middle East, found that cases occurred in clusters, and he suggested that these groups of cases were dependent on each other or on unknown factors which affected them all. He called them "epidemics of Bell's palsy," and their occurrence supported the hypothesis of a viral infection as the cause. It would be interesting to know the incidence in Egypt of other infectious diseases and their relation with facial paralysis, if any. The Bell's palsy was recurrent in 9% of El-Ebiary's patients, and the recurrence rate was twice as common in females as in males. He offers an interesting suggestion that premenstrual retention of water might be a predisposing factor, but some evidence of that would be welcome. As the incidence of diseases in the first two decades of life is higher in females than in males, it might be worthwhile to study their nutritional and haematological status as well as any association with other infectious diseases in the population.

Once again the value of electrodiagnostic tests was confirmed. Though these tests from the fourth day onwards can differentiate between conduction block and nerve degeneration, it is difficult to predict the degree of recovery likely to be achieved in patients with degeneration.

As long as the cause is unknown, treatment remains empirical. Fortunately most patients with conduction block recover completely. But what should be done in the first three days? So far the only controlled clinical trial to show any statistically significant effects of treatment in Bell's palsy was that reported by D. Taverner and colleagues,<sup>11</sup> who stated that ACTH was effective. Now in a controlled trial of intramuscular corticotrophin and oral prednisolone published this week in the *B.M.J.* (page 20) Drs. Taverner, S. B. Cohen, and B. C. Hutchinson concluded that oral prednisolone is the treatment of choice for Bell's palsy. What should be noted too is the recent report<sup>12</sup> that the natural course of Bell's palsy cannot be influenced favourably by surgical decompression of the facial nerve in the second or third week after the onset of paralysis.

<sup>1</sup> Cawthorne, T., and Wilson, T., *Archives of Otolaryngology*, 1963, 78, 429.

<sup>2</sup> Jongkees, L. B. W., *Archives of Otolaryngology*, 1965, 81, 518.

- <sup>3</sup> El-Ebiary, H. M., *Rheumatology and Physical Medicine*, 1971, 11, 100.  
<sup>4</sup> Gowers, W. R., *A Manual of Disease of the Nervous Systems*, Vol. 2, p. 245. London, Churchill, 1893.  
<sup>5</sup> Kettel, K., *Archives of Otolaryngology*, 1947, 46, 427.  
<sup>6</sup> Blunt, M. J., *Medical Journal of Australia*, 1962, 1, 74.  
<sup>7</sup> Cawthorne, T., and Haynes, D. R., *British Medical Journal*, 1956, 2, 1197.  
<sup>8</sup> Dalton, G. A., *British Medical Journal*, 1960, 1, 1765.  
<sup>9</sup> Leibowitz, U., *Neurology (Minneapolis)*, 1966, 11, 1105.  
<sup>10</sup> Sullivan, J. A., and Smith, J. B., *Annals of Otolaryngology, Rhinology and Laryngology*, 1950, 59, 1148.  
<sup>11</sup> Taverner, D., Fearnley, M. G., Kemble, F., Miles, D. W., and Peiris, O. A., *British Medical Journal*, 1966, 1, 391.  
<sup>12</sup> Meschelse, K., et al., *Lancet*, 1971, 2, 57.

## Rumination

According to E. M. Brockbank<sup>1</sup> rumination or merycism (Greek, chewing the cud) was first described by Fabricius ab Aquapendente in 1618. A Paduan nobleman whose father had a horn growing from the middle of his forehead was said to have ruminated like a cow. And Burgower in 1626 in a thesis at Basel described a ruminating monk who had two horns protruding from the forehead. Other authors later described ruminators with horns and assumed they had multiple stomachs like cows.

Brockbank noted the familial incidence of rumination, and described a patient and his six children who suffered from it. He thought that mental strain was a factor, and he quoted the case of a man who had ruminated for several years but who stopped within a few days of getting married. Cameron,<sup>2</sup> in a lecture at the Royal College of Physicians, stated that rumination may begin in infancy, but not before the fourth month, and that it may persist throughout life. He described five cases, all artificially fed babies, and stated that it was found most commonly in infants "with psychopathic inheritance and in a psychopathic environment." His description remains unequalled.

"After taking the meal quite in the ordinary way the baby, as a rule, lies quiet for a time. Then begin certain purposive movements, by which the abdominal muscles are thrown into a series of violent contractions—the head is held back, the mouth is opened, while the tongue projects a little and is curved from side to side so as to form a spoon-shaped concavity on its dorsal surface. After a varying time of persistent effort, sometimes punctuated by grunting or whimpering sounds, expressive of irritation at the failure to achieve the expected result, with each contraction of the abdominal muscles milk appears momentarily in the pharynx at the back of the mouth. . . . Finally a successful contraction ejects a great quantity of milk forward into the mouth. The infant lies with an expression of supreme satisfaction upon its face, sensing the regurgitated milk and subjecting it to innumerable sucking and chewing movements."

"It is very evident that achievement of his purpose produces a sense of beatitude, while failure results in nervous unrest and irritation."

"It is characteristic of the ruminating child that it sins its sin only in secret. To watch it openly is to put a stop to the whole procedure. . . . Only when the child is alone and in a drowsy, vacant state, while nothing distracts attention or excites curiosity, does the act take place."

Some babies appear to gargle with the regurgitated milk; one can see the milk repeatedly appear and disappear behind the tongue. The incidence is the same in boys and girls. Others have written about rumination in infancy as a sign of emotional deprivation.<sup>3-6</sup> J. B. Richmond and E. J. Eddy,<sup>5</sup> in describing four patients, wrote that the infants appeared to receive "insufficient maternal care in the form of physical contact and gratification. It is postulated that the symptom was an attempt by the infant to substitute gratifi-

cation from within when such gratification is not forthcoming from without the organism in the form of comfortable and stimulating experiences with a mother figure." There was a background of maternal immaturity and marital problems. There may be associated head rolling, head banging, body rocking, or hairpulling. The babies commonly present as "failure to thrive." The diagnosis is then made on the basis of the history and personal observation.

In a fully developed case the diagnosis of rumination is obvious, but in the early stages it is difficult to distinguish from the normal regurgitation or possetting seen in most infants, in some more than others. But the factor of emotional deprivation is not always obvious, and the possibility that there may be an underlying hiatus hernia is worth remembering.<sup>7</sup> Now J. Herbst and colleagues<sup>8</sup> have described three ruminating children who were found to have a hiatus hernia, shown by x-ray examination.

Many treatments have been advocated for the condition. At one time the skull was trephined. Cameron<sup>2</sup> tried a cap and china piece connected by two side pieces of webbing, each with a buckle; the mouth was kept securely closed by tightening the side pieces. He also recommended thickening the feeds. Others advise that the child should be nursed in the prone position, or that he should be kept sitting up. Some babies stop the practice when given a dummy or pacifier. Ruminating infants should certainly be given the love and attention which they need, and a good nurse who will mother the baby is essential for the treatment in hospital. It may well be that only a few ruminators have a hiatus hernia, but its possibility must be remembered so that the appropriate treatment can be instituted.

<sup>1</sup> Brockbank, E. M., *British Medical Journal*, 1907, 1, 421.

<sup>2</sup> Cameron, H. C., *British Medical Journal*, 1925, 1, 872.

<sup>3</sup> Menking, M., Wagnitz, J. G., Burton, J. J., Coddington, R. D., and Sotos, J. F., *New England Journal of Medicine*, 1969, 280, 802.

<sup>4</sup> Fullerton, D. T., *Archives of General Psychiatry*, 1963, 9, 593.

<sup>5</sup> Richmond, J. B., and Eddy, E. J., *American Journal of Diseases in Children*, 1957, 94, 412.

<sup>6</sup> Richmond, J. B., Eddy, E. J., and Green, M., *Pediatrics*, 1958, 22, 49.

<sup>7</sup> Illingworth, R. S., *The Normal Child*, 3rd edn. London, Churchill, 1964.

<sup>8</sup> Herbst, J., Friedland, G. W., and Zboralske, F. F., *Journal of Pediatrics*, 1971, 78, 261.

## Welsh Centenary

On 18 January 1871 the inaugural meeting of the South Wales and Monmouthshire Branch of the B.M.A., representing 120 members, was held at the New Hospital, Swansea. At a dinner at the Mackworth Arms after the meeting Dr. George Padley,<sup>1</sup> of Swansea, the first president, observed that: "They were all aware of the very important services which the B.M.A. had rendered to the profession, both in its scientific, social and political aspects, and he hoped that the Branch Association just established would prove a vigorous offshoot from the parent stem." With a century of active work behind it and a membership now fifteenfold bigger the branch has amply fulfilled Dr. Padley's expectations.

That same month the B.M.J. referred in a leading article on the "Growth and Distribution of the British Medical Association"<sup>2</sup> to the value of the branches in promoting the Association's membership and activities. At that time in England and Wales only about 28% of doctors belonged to the B.M.A. However, there were wide variations within this average, and not surprisingly more doctors joined in an area where a branch was in being and active. Though the Asso-