

streptomycin to cause eighth nerve damage, a most unusual effect from the comparatively short course indicated for this purpose.

The most promising antibiotic is penicillin. Most strains of *Proteus* are inhibited by about 5 units per ml., and far higher concentrations than this are attained in the urine on only moderate dosage. A sustained effect is desirable, and to give the treatment the best chance sodium penicillin should be administered by injection not less than four times a day in fairly large doses, say 500,000 units each; this should produce a urinary concentration of about 1,000 units per ml. (assuming 60% excretion and a daily urinary output of 1,200 ml.; fluid intake can with advantage be restricted to produce this). After three or four days the urine should be sterile, and the dose of penicillin can then be reduced; it would probably suffice to give 120 mg. penicillin V orally four times a day. To prevent recurrence this treatment should be continued for at least one month: a possible alternative at this stage is a small dose of a sulphonamide if the strain is sulphonamide-sensitive.

Few other antibiotics are of value in this infection, and treatment by mandelic acid is precluded by the breakdown of urea to form ammonia producing a degree of alkalinity which no acid drug can reverse. Neomycin is effective, but out of the question in this case because of its action on the eighth nerve. *Proteus* is the only coliform bacillus sensitive to novobiocin, but so little of this antibiotic is excreted by the kidney that its usefulness in urinary tract infections is doubtful.

Cleft Palate and Mental Defect

Q.—Why is deformity of the palate so often associated with mental deficiency?

A.—The incidence of cleft palate among imbeciles and idiots does indeed appear to be appreciably higher than in the general population. In a series of some 1,915 cases of severe mental defect in children examined during the past 10 years 19 instances of obvious cleft palate were recorded, a proportion of 0.992%. This compares with an incidence of 0.057% in children examined in general hospitals in England.

Cleft palate is merely one of the many somatic abnormalities the incidence of which is increased in children with abnormally developed brains. Other instances are syndactyly and polydactyly. It is known that abnormalities both of the brain and of the palate can be produced in animals by restricting the diet of the mother. Other unfavourable circumstances during early intrauterine life may also damage the palate as well as the brain. Genetic factors may be operative, but in the great majority of cases there is no clear family history of such a defect.

In feeble-mindedness there are certain special considerations. Any marked impairment of articulation associated with cleft palate may lead to educational retardation, poor test performance, and emotional maladjustment. The sum effect of these factors may be such as to cause a child to be classed as educationally subnormal or as feeble-minded after leaving school. The question of the intelligence of children with cleft palate was discussed in a recent annotation.¹ The evidence reviewed suggested that such children tend to be below average intelligence.

REFERENCE

¹ *British Medical Journal*, 1957, 1, 454.

Lead Hazard from Burning Paint

Q.—Does burning off paint with a blow-lamp, or the burning of painted objects in a fire, cause any appreciable volatilization of lead from the paint? If so, do the fumes constitute an acute or chronic hazard to those engaged in such operations?

A.—The extent to which volatilization of lead from painted objects will occur when burning off paint with a blow-lamp depends upon the temperature produced by the blow-lamp flame and on the lead content of the paint. For example, the lead-poisoning which occurs among ship-breakers results from the cutting of steel plates weather-proofed by red-lead paint with oxyacetylene (3,500° C.), oxyhydrogen (2,800° C.),

or oxy-coal-gas (2,200° C.) blowpipes, whereas the temperature reached at the hottest part of a paraffin blow-lamp flame is only 1,100° C. and in a spirit blow-lamp 900° C. Burning off or dry rubbing-down of surfaces painted with a lead paint constitutes a risk of lead absorption which may lead to intoxication, particularly if these procedures are carried out in confined, badly ventilated spaces.

With regard to the possible harmful effects of burning painted objects in a fire, it would be necessary to know much more about the nature of the objects, the type of paint, and the conditions under which the objects would be burned. The use of scrap batteries as domestic fuel gave rise to an outbreak of lead-poisoning among children in Rotherham in 1954. This, however, was attributed to ingestion of the residual ash and not to inhalation of fume.¹

REFERENCE

¹ Travers, E., Rendle-Short, J., and Harvey, C. C., *Lancet*, 1956, 2, 113.

NOTES AND COMMENTS

Antivenin for Adder Bite.—Dr. G. A. BALLANCE (Knighton, Radnorshire) writes: The second paragraph of your expert's answer ("Any Questions?" April 20, p. 961) begs the essential question—when indeed is one to expect the "remission of symptoms" to commence? That is just the problem of the isolated doctor, and it becomes more urgent when one remembers the little boy who recently died from the remedy, not the disease.

OUR EXPERT replies: I mentioned in my answer that fatalities following the bite of *Vipera berus* are fortunately rare, though small children may be severely affected. The timing of the expected recession of symptoms naturally depends on the severity of the case, but many patients show improvement within a few hours or on the following day. It is by no means uncommon to find that, when the country doctor obtains the serum urgently, he refrains from using it because the patient is already so much better. The recent fatality due to serum received considerable publicity in the lay press. It must be appreciated that the use of antivenin carries the same hazards as any other serum, and ideally one should carry out measures analogous to those recommended by Parish *et al.*¹ in connexion with the injection of tetanus antitoxin. Although it is unusual in practice to delay the main dose of antivenin for a sensitivity test, perhaps in the case of bites from *Vipera berus*—an adder that is not very poisonous—inquiries should be made about previous injections of horse serum of any kind and about allergic conditions, especially asthma and infantile eczema. What the doctor then does is a question of balancing the various risks in the particular case.

REFERENCE

¹ Parish, H. J., Laurent, L. J. M., and Moynihan, N. H., *British Medical Journal*, 1957, 1, 639.

Corrections.—In the description of Case 4 in the paper by Dr. Robert P. Warin and his colleagues on the subject of "Reticulohistiocytosis (Lipoid Dermato-arthritis)" (June 15, p. 1387) it was stated that: "A chest skiagram in April, 1957, showed diffuse mottling throughout both lungs." We regret that this sentence was misplaced: it should, in fact, have appeared at the end of the paragraph discussing the results of the x-ray examination of Case 2.

Dr. E. ASHWORTH UNDERWOOD writes: In my obituary note on Edgar Goldschmid (June 22, p. 1478) I regret that by a slip of the pen I wrote *Geschichte* instead of *Entwicklung* in the title of his main work. The correct title should therefore read *Entwicklung und Bibliographie der pathologischen-anatomischen Abbildung*.

We regret an error in the list of those admitted F.R.C.P.I. in our issue of June 22 (p. 1481). The D. J. O'CALLAGHAN concerned is of Cork, not Kilgarvan, Co. Kerry.

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