

No one to the writer's knowledge has ever suggested that biochemical changes are to be found in the C.S.F. of manic-depressives or idiopathic epileptics. It is, of course, a different matter with symptomatic epileptics.

Altitude and Hypertension

Q.—What effect has high altitude on patients with hypertension? What are regarded as reasonable upper limits of altitude for such patients (a) for permanent domicile, when presumably physiological adaptation may take place, (b) for a month's holiday, and (c) for an aeroplane flight?

A.—Altitudes up to 6,000 ft. (1,830 m.) have little adverse effect on patients with hypertension, and there is no reason why such patients should not take a holiday in the mountains up to this level, provided they are not threatened with heart failure. The adaptations that take place at high altitudes include polycythaemia and a raised cardiac output, and neither of these is beneficial to hypertensive states, so that permanent residence in places of 7,000 or 8,000 ft. (2,134 or 2,438 m.) is not recommended. Most modern airliners are pressurized to the equivalent of the atmospheric pressure at 6,000 ft., and in such artificial conditions the height of the plane does not matter. Patients with serious hypertension should avoid non-pressurized planes because no pilot can guarantee that he will not fly above 6,000 ft., owing to the uncertainty of the weather.

Coke in Open Fires

Q.—Is coke safe for regular use in an open fire in a living-room? I have heard that the fumes are dangerous.

A.—Coke is derived from coal by a process of carbonization in which nearly all of the volatile constituents of the coal are driven off by heating, so it should not be any more dangerous to burn than the parent coal. If coke or coal is burnt in a fire which does not allow complete combustion, carbon monoxide may be produced, and this of course would be dangerous if it escaped into the room. This could happen if the chimney were blocked. In this case, if coal were burnt, the smoke and other fumes, particularly sulphur dioxide, would be so irritating that it is unlikely that anyone would tolerate it, but in the case of coke there is much less smoke and fumes, so that the escape of carbon monoxide into the room might not be noticed and poisoning might conceivably result.

Toxicity of Mercury Vapour

Q.—Some laboratory workers think that mercury can have toxic effects when the vapour is inhaled over a prolonged period in an open laboratory. Is there any justification for this belief?

A.—There is abundant evidence that inhalation of mercury vapour causes chronic mercury poisoning. It is not sufficiently appreciated by those who handle mercury in the laboratory, or in industry, that mercury vaporizes at room temperature, and that the concentration of mercury in the atmosphere increases considerably in winter conditions when natural ventilation is reduced and workrooms are artificially heated. Form 332 issued in March, 1950, by the Factory Department of the Ministry of Labour and National Service deals with industrial mercury poisoning. It states: "Mercury gives off vapour to a certain extent even at ordinary temperatures, but warmth greatly increases this tendency. When the metal, as distinguished from its salts, is used, the danger of poisoning arises chiefly from inhalation of the vapour; and in a minor degree from swallowing or from absorption, in a finely divided state, by the skin." Striking examples of the harmful effects of mercury vapour are cited by Buckell *et al.* (1946). They refer to an incident of fire in a quicksilver mine in Austria in 1804. Mercury vapour escaped into the air and spread over the country-

side; 900 persons in the neighbourhood had mercurial tremor and many cows suffered from salivation, cachexia, and abortion.

REFERENCE

Buckell, M., Hunter, D., Milton, R., and Perry, K. M. A. (1946). *Brit. J. industr. Med.*, 3, 55.

NOTES AND COMMENTS

Short-sighted Boxers.—Mr. LIONEL M. GREEN (London, W.1) writes: Having acted as ophthalmic consultant to the British Board of Boxing Control for a good number of years, I feel that the reply given by your correspondent to the query concerning short-sighted boxers ("Any Questions?" January 3, p. 54) is somewhat misleading. The inquiry confined itself to the degree of myopia among schoolboys which might be considered to constitute a bar to boxing, and the answer virtually debars even low degrees from indulgence in this vigorous and healthy sport. Liability to retinal detachment in moderate myopia (up to -4 D.) at this age is probably no greater than in non-myopes, as the vitreous is usually perfectly healthy, and no evidence of early degenerative changes in the region of the ora serrata can usually be found or is expected. A blow suffered during this age-period sufficient to cause detachment would almost certainly be as likely to cause the same type of injury in a non-myope. Only those with the higher degrees of myopia, and particularly towards the latter years of school life and where the myopia has been rapidly progressive, or associated with marked retinal thinning, large temporal myopic crescents, early evidence of vitreous degeneration such as floaters, and slightly subnormal corrected acuity, should be debarred owing to this greater risk of retinal detachment; and indeed in this type of case the poor uncorrected vision present would in itself effectively prohibit participation in the game. The undue prominence of the myopic eye is very largely a fiction based upon the exploded theory that almost all degrees are mainly axial in origin with an increased antero-posterior length. Recent radiological methods of measuring this axial length have shown that up to -6 D. the myopic eye is only 0.5 to 1.5 mm. longer than normal, a degree of additional prominence which surely can be entirely discounted. In my opinion schoolboy myopes up to -3.0 D. certainly, and up to -4.0 D. in most cases, can indulge in the sport without additional risk as compared with their better-sighted playmates. Except in exhibition bouts all boys should wear rubber orbital prominence goggles, a form of protection which has recently been advocated for use among professionals. Within the range mentioned the acuity present without correction is quite sufficient to enjoy the sport and develop a sound technique.

OUR EXPERT writes: I find myself in total disagreement with Mr. L. M. Green. I have seen so many eyes seriously damaged or totally wrecked as a result of blows from boxing that I feel it is superfluous to make a detailed answer to him. Anybody who takes the trouble to consult the literature will find a large list of tragedies not only among professional but among amateur boxers. For example, Jokl, of Johannesburg, has written extensively upon this subject. In my opinion everything that one says about the vulnerability of eyes to boxing injury is enhanced when the boxer in question is a myope—even if the amount of his myopia is only slight.

Correction.—In announcing the award of a knighthood to Dr. F. P. Montgomery (January 10, p. 92) his appointments as senior radiologist to the Royal Victoria Hospital, Belfast, and to the Belfast City Hospital were regrettably omitted.

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