

would carry any important risk of contracting the disease. Between 60 and 75% of the population have been infected with the tubercle bacillus by the age of 20. A daily bus or tube journey in the rush hour is probably more dangerous than the circumstances mentioned; the latter may well be pure coincidence. To make a house safe after occupation by an infectious case the floors and flat surfaces can be damp dusted with 5% phenol (which kills tubercle bacilli in five minutes), all windows being left widely open to let in as much air and light as possible. This ventilation may be repeated daily for a week and the rooms then cleaned with a vacuum cleaner. Thereafter there should be very little chance of infection of subsequent occupants.

REFERENCES

- ¹ Smith, C. R. (1942). *Amer. Rev. Tuberc.*, 45, 334; 46, 549.
- ² Augustine, A. E. (1929). *J. prev. Med.*, 3, 121.
- ³ Cruickshank, R. (1948). *N.A.P.T. Bull.*, 11, 136.

Neuronal Pathways in Decerebrate Rigidity

Q.—*Decerebrate rigidity is a condition of reflex activity involving the lower motor centres of the cord with the vestibular nuclei and those of Deiters in the adjacent levels of the pons, the afferent impulses coming from the proprioceptors in the muscles and the vestibular organs. Section of the vestibular component materially reduces the degree of tonus and reflex movement (particularly in the forelimbs), but does not abolish the general condition. Cutting the dorsal roots, on the other hand, completely removes any semblance of rigidity. By what tracts do the fibres conveying the impulses from the proprioceptors in the muscles reach the vestibular and Deiterian nuclei after entering the cord by the posterior nerve roots?*

A.—Decerebrate rigidity can be regarded as a state of exaggerated postural tonus. In the spinal animal the existence of a response to stretch in the antigravity muscles is demonstrated by the presence of the knee and ankle jerks, though this extensor activity is overshadowed by the flexor response. Both extensor and flexor responses are abolished by section of the posterior nerve roots from the limb, since this breaks the lowest level reflex arc. In animals in which the brain stem is sectioned at the level of the corpora quadrigemina the posture of exaggerated reflex standing develops; where a hemisection only is performed the posture develops upon the side of the hemisection only. In such decerebrate preparations the rigidity is abolished not only by section of the dorsal roots from the affected limbs but also by section of the brain stem below the level of the vestibular nuclei or by section of the ventral quadrants of the cord—with their vestibulo-spinal tracts. The condition may thus be regarded as a modification of the activity of the purely spinal reflex arc brought about by the activity of the vestibular apparatus. It is likely that, in addition, ascending fibres from the posterior nerve roots terminate in the lower brain stem, as they do in the mesencephalon, around cells from which such tracts as the vestibulo-spinal arise. The detailed course of such fibres is not known.

Cycling and Varicose Veins

Q.—*Is it wise for a man of 69 with bad varicose veins to cycle in moderation? Does not exercise without putting weight on to the limb help to strengthen the muscles and improve the circulation?*

A.—In the absence of any other contraindication there would appear to be no objection to a man of 69 with bad varicose veins cycling in moderation. Any form of rhythmical activity of the lower limbs, such as walking, dancing, cycling, etc., tends to diminish the venous congestion caused by varicose veins. For these reasons patients are often much more comfortable when performing these rhythmical activities than when standing, sitting, or walking slowly and un rhythmically. In this way cycling in moderation could be described as "improving the circulation." In addition the improvement in muscle tone would probably increase the subjective comfort of the limbs.

The real risk of cycling to such a patient is that of injury from the pedals, etc., to the lower parts of the legs, especially the shins. Such injuries might be serious in the presence of a marked degree of skin congestion. For this reason such patients are advised to wear either elastic stockings, crêpe bandages, or even shin guards for cycling.

Visual Development in Infants

Q.—*In what order and at what ages do the functions of a baby's eyes develop? Is a premature baby deficient in its powers of vision?*

A.—Babies begin to appreciate a light within a few days of birth, and then a few weeks later they are usually capable of keeping both eyes directed upon moving objects. As the macula has not nearly completed its development by the time of birth it is impossible for babies to discriminate detail until they are a few months old. The higher grades of binocular vision (including stereoscopic vision) take several years to develop. There is wide variation between different subjects. The vision of a premature baby is less acute than that of a full-term baby because the development of a premature baby's macula is behindhand.

Oestrogen Ointment and Acne

Q.—*Recent American literature contains several articles upholding the efficacy of oestrogenic inunctions in the treatment of acne. What are your views on this form of treatment?*

A.—The use of ointments containing oestrogens is neither necessary nor desirable in the treatment of acne under ordinary circumstances. It is sometimes employed with advantage in older patients or very resistant cases, but it is an uncertain measure. There is ready absorption of oestrogens through the skin which may have disturbing systemic effects unless care is taken. The normal proprietary ointments contain 2.5% of oestrogen and should be used only for one week in four or upon some such plan.

NOTES AND COMMENTS

Rosehip Syrup.—Dr. C. ALLAN BIRCH (Enfield) writes: The method of preparing syrup from rose hips described in "Any Questions?" (May 29, p. 1277) is a rather laborious way of preserving some of their vitamin C. That boiling was detrimental to some virtuous property (vitamin C) in rose hips was evidently known to our forefathers, as shown in an ancient recipe for rosehip conserve which I came across some years ago. It consisted simply in cutting up the hips (minus seeds) and pounding them with an equal weight of sugar or honey. No heat was used. I made some and was interested to find that the vitamin-C content remained the same a year later.

Correction.—Dr. C. L. COPE writes: "In the paper by myself and Dr. J. Garcia-Llaurado which appeared in the *Journal* of June 5 (p. 1290) we wrongly attributed the adrenal cortical extract 'eucortone' to Burroughs Wellcome and Co. Eucortone has, of course, been made by Allen and Hanburys Ltd. for more than twenty years, and we apologize to the firm for any embarrassment we have caused them by this mistake."

All communications with regard to editorial business should be addressed to THE EDITOR, BRITISH MEDICAL JOURNAL, B.M.A. HOUSE, TAVISTOCK SQUARE, LONDON, W.C.1. TELEPHONE: EUSTON 4499. TELEGRAMS: *Aitlog, Westcent, London.* ORIGINAL ARTICLES AND LETTERS forwarded for publication are understood to be offered to the *British Medical Journal* alone unless the contrary be stated.

Authors desiring REPRINTS should communicate with the Publishing Manager, B.M.A. House, Tavistock Square, W.C.1, on receipt of proofs. Authors overseas should indicate on MSS. if reprints are required, as proofs are not sent abroad.

ADVERTISEMENTS should be addressed to the Advertisement Manager, B.M.A. House, Tavistock Square, London, W.C.1 (hours 9 a.m. to 5 p.m.). TELEPHONE: EUSTON 4499. TELEGRAMS: *Britmedads, Westcent, London.*

MEMBERS' SUBSCRIPTIONS should be sent to the SECRETARY of the Association, TELEPHONE: EUSTON 4499. TELEGRAMS: *Medisecra, Westcent, London.*

B.M.A. SCOTTISH OFFICE: 7, Drumsheugh Gardens, Edinburgh.