

the cerebrospinal fluid may be necessary. Most important of all is a scrupulous examination of the nervous system.

(b) No; fibrillatory twitchings (including also fasciculation) do not necessarily indicate a progressive muscular atrophy, or, indeed, any other organic neurological affection.

Irradiated Ergosterol and Cancer

Q.—I understand that most vitamin-D concentrates are prepared by irradiation of ergosterol. Is there any risk that in the process carcinogenic substances are produced by the action of the rays on impurities? Has work been done on experimental animals to exclude this possibility?

A.—The irradiated products of ergosterol are not carcinogenic. There have been no reports of tumour formation in animals treated with irradiated ergosterol or calciferol, nor are there any clinical reports stating that the long-continued use of calciferol in large doses—for example, in arthritis or lupus—has resulted in tumour formation.

Irradiation of Tonsils

Q.—Is it possible to destroy the tonsils and adenoids other than by operation?

A.—Irradiation by x rays or radium has been used for many years to destroy lymphoid tissue, including that contained in the palatine tonsils; but it is obvious that not all the components of the tonsils can thus be destroyed, so that the end-result will be a fibrous remnant most probably containing pockets of infection. In the nasopharynx, on the other hand, irradiation may be of the greatest value in destroying the small collections of lymphoid tissue behind the Eustachian openings. Any competent radiologist would advise on treatment by irradiation.

Ligation of Pulmonary Veins in Phthisis

Q.—Has the attempt ever been made in progressive phthisis to ligate the pulmonary veins or to induce damage to the mitral valve on the grounds that mitral stenosis and regurgitation cause improvement in, or immunity from, the disease?

A.—Ligation of the pulmonary veins has been performed for the treatment of unilateral pulmonary tuberculosis by Sauerbruch and others. The benefit, if any, which resulted from this procedure appears to have been transient, and the treatment is no longer used.

Action of Amphetamine

Q.—What is the pharmacological explanation of the stimulating action of amphetamine?

A.—Amphetamine is β -phenylisopropylamine, and there is also available a dextrorotatory form. Both substances have a similar stimulating action. The pharmacological explanation of this effect put forward by Mann and Quastel (*Biochem. J.*, 1940, **34**, 414) is that these substances inhibit the action of amine oxidase, which is an enzyme present in the brain. This enzyme normally forms aldehydes in the central nervous system, which inhibit glucose metabolism and so keep the brain partly depressed. Amphetamine then stimulates the brain by stopping the formation of these aldehydes.

NOTES AND COMMENTS

Marital Phthisis.—Dr. RAYMOND WILLIAMS (The Chest Clinic, Hammersmith Hospital, W.) writes: In the *Journal* of Oct. 25 (p. 679) a correspondent asked a question which brought up again the old problem of marital phthisis, and you published a reply in which you rightly stated that the reports on the subject are conflicting and that it is therefore difficult to be dogmatic about it. References were given to Fishberg (1932), who concluded that the incidence of marital phthisis is about 3%, and to Opie and McPhedran (1932), who in a small series found that "20% of the consorts of sputum-positive individuals developed clinically manifest disease." The above writers in their turn quote older authorities—e.g., Pope and Pearson (1908), who examined no less than 40,000 couples and found scant evidence of marital infection, and Arnould (1925), who found some evidence of transmission in 53,000 couples. It occurred to me that your correspondent, and perhaps others, might care to have some simple up-to-date figures of the incidence in a London borough.

In the Borough of Hammersmith (1946 population 111,860) there were on Sept. 30, 1947, 1,279 notified cases of tuberculosis of all

types on the dispensary register. The majority of these, 1,027, are cases of pulmonary tuberculosis. Of the total of 1,279, 202 are married women and 222 are married men, making a total of 424. Of these there are 12 couples—i.e., 24 of the total—where both partners are notified cases, and this gives an incidence of 2.8%. After a perusal of the case records 4 of these consorts cannot be said to have acquired the disease from the other partner, for such reasons as that both were notified cases prior to marriage, etc. We are left, therefore, with 8 persons from a total of 424 marriages who can probably be said to have acquired the disease from the husband or wife, and this is equivalent to roughly 2%. The numbers here are small and it is doubtful whether in such a small series it would be profitable to create further subdivisions and produce a more detailed statistical summary. It is not claimed that these figures give more than a broad picture of the incidence of marital phthisis under present-day conditions in a London borough. The incidence of 2% is, I think, surprisingly low and will serve perhaps to reassure those who are unduly nervous in connexion with the chances of adults acquiring the disease by contact.

I wish to thank Dr. F. M. Day, Medical Officer of Health for the Borough of Hammersmith, for permission to publish these details; my colleague, Dr. Vernon Wilson, for his kind help and co-operation; and Sisters Catherine Lomasney, Mary Hennon, and Margaret Adams for their invaluable help in the preparation of the figures.

Removal of Superfluous Hair.—Dr. AGNES SAVILL (London, W.) writes: I was glad to see Dr. Clara Warren's admirable letter (Dec. 6, p. 942) on this distressing subject. I dealt with its treatment in a special chapter in *The Hair and Scalp*, 1944, London. In 1938 a lady was sent to me as one drifting into deep melancholia. She lived in two rooms and never went out except after dusk. I advised a daily pumice stone for the extensive thick masculine growth over her chin. This I said would cost a few pence, whereas adequate treatment might run into £100, even with minimum fees. She replied, "That would cost less than the asylum awaiting me. Please start at once." Soon after the war had begun she walked into my room erect, smiling, radiantly happy. She had been placed at the head of one of the largest comforts agencies and was a busy woman from morn to night. "Did I ever spend money so wisely as when I decided to have this long treatment?" she remarked.

Patients give varied accounts of the pain with the three methods I employ. Electrolysis is effective, but slow, and very boring to the operator. I had an excellent short-wave machine brought from Vienna about 1931. When parts wore out and could not be replaced during the war, Dr. Warren and Messrs. Schall told me to use my long-wave diathermy machine, monopolar method. This I found very successful. Pain some say is greater with the short wave; others say the contrary. Some dislike electrolysis; others prefer it. With very thick hairs one has to use large currents with either apparatus; this causes considerable reaction and with diathermy the depression resulting often takes long to disappear. Hence of recent years I have been coming to the conclusion that with very thick deep-rooted hairs it is wise to give some tugging to remove the hair; it returns in a few weeks, but it is then finer and more readily loosened. Hairs which have been plucked usually have twisted roots. I have an illustration of such golf-stick-curved roots in *The Hair and Scalp*. Even with the greatest care, and even when the hair comes out with ease, it is astonishing how these very thick hairs may return three to four times. To aid the pain with the operation I have found Bonain's solution well rubbed in over the affected region is the best local anaesthetic.

Correction.—Prof. J. BEATTIE makes the following corrections to his paper which appeared in the *Journal* of Nov. 22 (p. 813): P. 813, col. 1, line 3: for "1929" read "1930"; p. 813, col. 1, lines 4 and 5: for "experimental animals" read "man"; p. 815, col. 1, line 38: for "them" read "it"; p. 816, col. 2, line 45: for "cortin" read "cortex"; p. 817, References: for "Cuthbertson, D. P. (1929). *Biochem. J.*, **23**, 1328" read "Cuthbertson, D. P. (1930). *Biochem. J.*, **24**, 1244."

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