

Irradiation of Pituitary for Diabetes

Q.—As experimental diabetes in dogs is benefited by hypophysectomy, is there any evidence to show that deep x-ray therapy to the pituitary gland is beneficial in cases of human diabetes, presumed to be of pituitary origin?

A.—Deep x-ray therapy to the pituitary gland has been tried on a number of occasions in the treatment of human diabetes, but, except in those cases in which the diabetes has been secondary to a definite pituitary lesion, as in acromegaly and pituitary basophilism, the response has been negligible.

Beds in Sanatoria

Q.—What is the recommended distance between tuberculous patients in general wards of sanatoria, and what distance is usually adopted in actual practice to-day? What type of mattress is found most suitable for sanatorium needs—rubber latex or interior sprung?

A.—The recommended distance between bed centres for a fever hospital is 12 ft. (3.66 m.). Under present circumstances it is rarely possible to attain this standard in sanatoria, and 6 or 7 ft. is generally regarded as sufficient.

Either interior sprung or latex foam mattresses are suitable for sanatorium uses. The former are preferable, because they can be sterilized by steam under pressure, provided that they are kept flat. Latex foam mattresses can also be steam sterilized, but they deteriorate more quickly when subjected to this process.

Clinical Thermometry

Q.—How do you explain an oral temperature which continues to rise over about 10 minutes? I have in mind a patient with pulmonary tuberculosis in whom, after the thermometer has been shaken down to 97° F. (36.1° C.), the temperature readings are: after two minutes 98.4° F. (36.9° C.), after four minutes 98.6° F. (37° C.), and at the end of 10 minutes 99.2° F. (37.3° C.). Is this a common phenomenon, and what is this patient's "temperature"?

A.—Oral temperature which appears to rise is a normal phenomenon, due to the delay in attaining a steady state within the mouth. In many practical physiology classes students read the mouth temperature at half-minute intervals, using clinical thermometers. A steady reading is frequently not obtained until the thermometer has been in the mouth for five minutes. If accurate readings of mouth temperature are required, five minutes under the tongue should be recommended rather than two minutes. This time can sometimes be reduced by keeping the thermometer under the tongue on one side of the mouth for half a minute, and then moving the thermometer across to the other side of the mouth, as suggested by Dr. Du Bois. The initial surface temperature may be many degrees below so-called body temperature in mouth-breathers, and the time to reach a steady state may be even longer than five minutes.

E.D.T. Crystals

Q.—Is it dangerous to handle the E.D.T. synthetic crystals which are used in the telephone industry?

A.—The difficulty of obtaining quartz crystals in recent years has led to the use of E.D.T. (ethylene diamine tartrate) to replace quartz in electrical circuits. No harmful effects have been reported from the handling of the finished crystals, which are chemically neutral and stable and are used in the form of slices or bars. Ethylene diamine, which is used in making the crystals, is known to cause irritation of mucous membranes. It affects particularly the eyes, nose, and pharynx, and may cause tightness in the chest. Dermatitis may also result from contact with the concentrated solution from which the E.D.T. crystals are grown. It is possible that dermatitis might occur from contact with finely produced E.D.T., but it is unlikely that the substance would be used in this form.

Bacteriology of Carious Teeth

Q.—What is the common bacteriological flora of carious teeth? Are tubercle bacilli ever found?

A.—The bacteria found most frequently in carious teeth are *Lactobacillus acidophilus* and *Streptococcus viridans*. It is believed that the enamel and dentine are decalcified by the acids released when these organisms ferment carbohydrates. Other organisms which have been reported include *Staphylococcus albus*, *Actinomyces*, *Neisseria catarrhalis* and *pharyngis*, *Proteus vulgaris*, yeasts, members of the *Bacillus* group, and *Clostridium welchii*. Tubercle bacilli have not been reported in carious teeth, but they have been found in a few cases of periapical infection in patients suffering from pulmonary tuberculosis.

Gräfenberg Ring

Q.—How long should a silver ring be allowed to remain in the uterus?

A.—Those who advise the Gräfenberg silver ring as a contraceptive (or more strictly as an abortifacient) say that it can be left in the uterus for a year, and sometimes longer, provided that the patient does not develop symptoms such as pain, menorrhagia, or discharge. It is emphasized, however, that in order to make sure of these points the patient must report to her medical attendant once a month. However, expert opinion in this country is opposed to a silver ring ever being inserted and left in the uterus. It involves a real risk of injury and infection as well as of menstrual disturbance, and it is not as reliable in preventing or disturbing implantation of the ovum as is sometimes supposed. The warning against the use of this instrument, published by the Family Planning Association in the *British Medical Journal* (1946, 2, 599), still holds good.

Vaccination

Q.—Where can I find information on the best way of vaccinating against smallpox?

A.—On p. 139 of the book "Any Questions?" The book can be obtained for 7s. 6d. (postage 6d.) from the Publishing Manager, B.M.A. House, Tavistock Square, W.C.1.

NOTES AND COMMENTS

Eczema of the Hand in a Child.—Dr. H. C. SEMON (London) writes: With reference to the question about a child with eczema of the hands ("Any Questions?" June 14, p. 1312), in a similar case, a girl of 7, the mother co-operated by listing in detail all the child's activities from dawn till dusk. Peeling oranges appeared to be an almost daily occupation, and it was eventually established by a patch test that the volatile oils of orange peel were the direct cause of the recurrent and intractable dermatitis. A temporary relapse some six months later was traced to contact with grapefruit peel. Both these citrus fruits and lemon juice could be taken by mouth without harm to the skin.

Correction.—Dr. K. B. ROGERS informs us that a column of figures was wrongly placed in Table II of his article in the *Journal* of May 24 (p. 1109). In the lower half of the Table under the heading "Westergren Sedimentation Rate" the column of figures which appears under "Corrected Rates (Hynes and Whitby)" should have appeared under "C.V. c.cm."

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