There is no evidence, at present, that antibodies characteristic of infectious mononucleosis ever arise during the course of any other disease.[3] In fact, if the differential absorption test is always performed the possibility of a false positive result will be limited to those very rare occasions when antibodies persisting from a previously undiagnosed attack of infectious mononucleosis are found for the first time during the investigation of some other condition.

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Tumour Differentiation and Infiltration

Q.—*Why should an undifferentiated tumour exhibit a greater capacity for infiltration than one that is better differentiated?*

A.—The power to infiltrate is related to the average rate of growth of the cells of a tumour—that is, the average number of mitotic divisions which take place in these cells in unit time. If this rate is high there will be no time for the average cell to grow in size and to differentiate between mitoses—that is, the growth rate is inversely proportional to the degree of differentiation observed, and rapid growth is associated with the formation of small cells, all of which are spherical in shape.

A slowly growing tumour tends to be compact, and as it expands it exerts steady, uniform, and increasing pressure on the capillaries and cells of the connective tissue immediately surrounding it. The cells and fibre of this connective tissue die. The connective tissue further away and not subjected to this pressure reacts to the products of autolysis produced in the zone of cell death and a mild inflammatory response is produced. The inflammatory zone is replaced by the formation of granulation tissue in which fibroblasts proliferate and are responsible for the deposition of collagenous connective tissue which eventually forms a capsule. If, however, mitosis is unusually rapid the cell mass is no longer compact and can exert no sustained expansile pressure on the surrounding connective tissue. The protection of a capsule is lost and groups of tumour daughter cells insinuate themselves between the normal cells of the tissue of origin.

Thrombophlebitis Migrans

Q.—*What is the modern treatment and prognosis of thrombophlebitis migrans? My patient has the condition in a superficial vein in his thigh.*

A.—It is necessary to distinguish between primary idiopathic thrombophlebitis of a single vein and thrombophlebitis migrans, which is essentially recurrent and multiple in distribution. In the first type, which fits the description of the case in question, the prognosis is good, particularly if the vein involved is a superficial one. The treatment is local immobilization by strapping the vein with a strip of elastic adhesive bandage laid along its course, together with ambulation to discourage stasis and thrombosis in deep veins.

In true thrombophlebitis migrans the prognosis is not so good. The limb or life of the patient may be endangered in the severe cases with extensive recurrent involvement of superficial and deep veins. The pathology of the venous lesions is the same as that found in thromboangiitis obliterans, of which it may occasionally be the precursor. Severe cases require treatment in hospital with full anticoagulant treatment under laboratory control. Less severe cases may be treated by support to the limb by elastic stockings or bandages together with anticoagulant treatment of a less intensive kind.

A compromise must be reached between the difficulties of regular laboratory control of blood coagulability and the possibility of reaching dangerously low levels of blood coagulability without it. For this purpose the drug phenylindanedione is useful to maintain a stable reduction in prothrombin percentage over prolonged periods of time. Initiation of treatment with daily doses of 100–150 mg. under laboratory control is best, with later maintenance on 50–75 mg. daily according to the response. For short periods of intensive therapy a prothrombin percentage of the order of 25% is necessary, but for prolonged treatment somewhat higher levels may have to be accepted.

Garlic in Hypertension

Q.—*Does garlic contain any hypotensive substance? I have twice come across patients on the Continent who have reacted favourably to "garlic therapy" for hypertension.*

A.—Extracts of garlic are reputed to owe their action to volatile oils containing organic sulphides and allyl aldehyde. These substances in fairly large doses are toxic. With reasonable doses no action leading one to suspect a possible usefulness in hypertension has been described. The use of garlic dates back at least to Culpeper, who described it as "the poor man's treacle, it being a remedy for all diseases and hurts (except those which it does breed)." A feeble fungistatic and bacteriostatic effect by garlic preparations has been demonstrated in recent years. Although it is difficult to exclude some mild hypotensive action, it would be necessary with a disease like hypertension to ensure that evidence for the effectiveness of garlic was carefully controlled by the use of some other inert but equally odoriferous principle.

Sensitivity to Penicillin in Congenital Syphilis

Q.—*What course of treatment is advised for a congenitally syphilitic child (now aged 6) who is sensitive to penicillin?*

A.—The questioner gives no indication as to symptoms, treatment already administered, or the results of laboratory investigations. Antibiotics other than penicillin have been used successfully in the treatment of syphilis: chlortetracycline, oxytetracycline, chloramphenicol, and erythromycin, for instance, are all effective antisyphilitic agents. A course of oxytetracycline in doses of 60 mg. per kilogramme of body weight daily for ten days is suggested. This should be followed by a ten weeks' course of intramuscular injections of bismuth (injectio bismuthi *B.P.*, 1 ml., once a week).

Serological follow-up is essential, and failure of the titre to decrease demands an examination of the cerebrospinal fluid.

Gastric Analysis in Suspected Cancer

Q.—*Is the presence or absence of free acid in the gastric juice of any value in the diagnosis of cancer of the stomach?*

A.—In established cancer of the stomach *x*-ray examination, supplemented if necessary by gastroscopy, is so exact as to make other investigations superfluous. In early cancer the findings of gastric analysis are so variable as to be positively misleading. As a diagnostic measure, whether for cancer or other digestive disorders, the test meal technique is quite obsolete and even such modifications as the augmented histamine test have only a limited application.

Correction.—Dr. H. Grundmann, in his letter on acute immediate reactions to penicillin (*Journal*, June 8, p. 1363), in the paragraph referring to experimental salvarsan sensitization, mentions intradermal injection of 1 ml. of a 1:100 solution of a primary non-toxic salvarsan derivative—e.g., myosalvarsan. He should have written 0.1 ml. of a 1:100 solution.

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