bacteria, notably streptococci and less frequently Vincent's organisms, in any series of diphtheria patients. Pure cultures of diphtheria bacilli are obtained from carriers rather than from cases. Indeed, the associated organisms or secondary invaders may so overwhelm the cultures obtained from the most severe of infections that a second or third swab has to be taken to establish a bacteriological diagnosis the clinical counterpart of which has never for a moment been in doubt.

These three cases raise again the question of the Schick-positive carrier. Dudley (1923) says that so far as his experience goes the Schick-positive carrier is unknown. How, then, is a susceptible individual to obtain natural immunity except by an attack of the disease? That some do obtain it by another way is obvious, for how otherwise could 70 to 80 per cent. of adults have become insusceptible? Not all nor even the majority of them have had a clinical attack of diphtheria. Surely at one time in their history they must have been at least temporary carriers of small numbers of virulent diphtheria bacilli.

Immunization of the Schick-positive cases was carried out in six instances. Two doses of alum toxoid were used on four occasions and three doses of toxoid-antitoxin mixture on the other two occasions with complete success. It is strange to reflect that active immunity may be more readily produced by artificial than by natural means.

Summary and Conclusions

The results of Schick-testing a series of patients six or more weeks after an attack of diphtheria are reported. These results have suggested the following conclusions:

1. That after an attack of diphtheria, irrespective of its severity, about 10 per cent. of persons remain potentially susceptible.

2. That the chance of remaining susceptible is not diminished by delayed administration of serum.

3. That immunity is either developed early—that is, before the sixth week—or not at all.

4. That cases developing paralysis would appear generally to have acquired immunity.

5. That cases which do not develop a natural immunity as the result of infection respond satisfactorily to active artificial immunization.

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In the twelve months September 30, 1936, to September 30, 1937, eighty-seven students received training in the medical side of missionary work abroad at Livingstone College. The annual report contains numerous personal tributes to the practical value of this training, which is available for all Christian missionary students without any denominational discrimination. There was a small financial deficit on the year's working, due in large measure to a fall in the amount received from the students' fees. The number of students, it is mentioned, has slightly increased, but the majority in that year only came for short periods. The report contains also the speech delivered at the Commemoration Day meeting in June, 1937, by Mr. W. A. Cadbury, relating to his work in Northern India. The volume of testimonies to the usefulness of the curriculum at Livingstone College shows how missionaries thus trained can be of the greatest value in parts of the world where ordinary medical assistance is scanty.

Clinical Memoranda

"Mixed Tumour" of the Lip: Report of Two Cases

After reading Mr. R. Pilcher's article in the *British Medical Journal* of May 8, 1937 (p. 967), I feel that the following two similar cases of "mixed tumour" of the lip are worth recording. Case II came to my notice a few weeks following the appearance of Mr. Pilcher's article; the other was encountered in 1935.

CASE I

A Chinese woman, aged 24, had had a swelling on the right side of the lip for four years. The tumour was oval, about the size of a walnut, and quite firm.

Histologically the tumour consisted of a fibrous tissue stroma in which were strands of epithelial cells, most of them in alveolar formation, and some appeared to be lining the lymph spaces. Small dark epithelial cells with hyperchromatic nuclei arranged in solid masses were also in evidence. In various areas mucoid and osteoid tissue as well as hyaline material were seen. Lymphocytic infiltration was pronounced in various parts of the tumour.

CASE II

This patient, a Chinese woman aged 36, had had a painless slow-growing swelling on the upper lip for thirteen and a half years. There was no history of trauma, the swelling having first started as a small reddish nodule, growing very gradually. On examination it was found to be hard, pedunculated, and freely movable. It was covered by a tense skin, and several prominent vessels could be seen on its surface. Its under-surface was continuous with the mucous membrane of the lip. The removal of the tumour was followed by a skin graft.

The specimen was oval in shape and about 3 by 2.5 cm. It was firm, encapsulated, and covered by skin. On section it showed a white and opaque smooth surface, containing several small yellowish areas.

The histological report was as follows: "Section shows acini and solid clumps of epithelial cells lying in a fibrous connective-tissue stroma, which in places appears myxomatous. The acini are lined with low cubical or flattened epithelium. Their contents appear pink-staining and homogeneous. Some of the acini are dilated and cystic. The solid masses, with their closely packed cells and a tendency to form cell nests in the centre, present a striking resemblance to squamous epithelium. Distributed in the stroma are seen cartilage-like areas and foci of lymphocytic infiltration."

These two cases were encountered in the course of the routine examination of biopsy material submitted by the University Surgical Clinic. Reports of similar cases in other parts of China are lacking.

I am much indebted to Professor K. H. Digby for the clinical reports.

K. T. LOKE, M.B., B.S.
Department of Pathology, University of Hong Kong.

A Case of "Mixed Tumour" of the Upper Lip

I was greatly interested in the case of "mixed tumour" of the lip reported by Mr. Robin Pilcher in your issue for May 8, 1937. By a coincidence it so happened that on the day on which I read his report an almost exactly similar case was in my wards awaiting operation.

CASE RECORD

The patient was a Hindu lady, aged 25, who came to hospital complaining of obstruction to breathing through her right nostril. This was found to be due to a swelling the size of a walnut in the substance of the right upper lip. She stated that the swelling had started without cause three years previously, and that it had grown slowly, causing no disability until a few months before, when the obstructed breathing had come on.

The tumour was firm, coarsely lobulated on the surface, quite free from attachment to skin and mucous membrane, of even consistency with a definite edge, freely mobile, not translucent, and not tender. An out-patient diagnosis of a "submucous retention cyst" was obviously wrong, and was altered to that of a "mixed tumour" as soon as the case was seen. The tumour was removed through an incision in the mucous membrane of the lip, and shelled out with perfect ease. Convalescence was normal. The pathological report, for which I am indebted to Dr. P. Ramachandra Rao, professor of pathology in the Vizagapatam Medical College, is as follows:

PATHOLOGICAL REPORT

"*Naked-eye Appearance.*—The tumour is an irregularly oval, greyish-white, slightly bosselated, encapsulated, fairly firm mass about the size of a marble ($1\frac{3}{4} \times 1\frac{1}{2}$ cm.). The greyish-white cut surface is slightly bulging, faintly lobulated at the periphery, and shows an irregular slightly depressed white fibrous area at the centre. The bulging periphery has a mucoid adenomatous appearance. No cysts are, however, distinguishable even with the magnifying glass.

"*Microscopical Appearance.*—The section shows small spindle-shaped cells with oval plump nuclei containing one or two nucleoli and with scanty cytoplasm, arranged closely in sheets or branching columns or in the form of alveolar networks. In some places the cells form a cluster of branching papillae with very delicate hyaline connective-tissue cores. In others, especially about the cicatricial centre, rounded masses of these cells undergoing hyaline change have formed typical epithelial pearls. In still other areas tubular spaces of varying size, but principally of microscopic dimensions, with homogeneous hyaline contents and lined by cuboidal epithelium in which the nuclei lie near the base, are seen. Some of the tubules have a double lining of the epithelial cells—the distal layer being more columnar in shape. The stroma is formed principally by a mucoid embryonal type of connective tissue, which contains lobules of fatty tissue in places. The centre, however, shows dense hyaline connective tissue with septa radiating from it to the periphery between the epithelial masses giving rise to the lobulated appearance. Cartilage is not in evidence. The stroma, however, shows a fair amount of elastic tissue, particularly in the centre. The vessels are thin-walled and scanty.

"The tumour belongs to the group of 'mixed tumours' of the salivary gland, and may more appropriately be called epithelioma adenoides cysticum."

MAJOR F. M. COLLINS, M.B., F.R.C.S.,
Principal and Professor of Surgery.
Medical College, Vizagapatam.

An International Congress on Rheumatic Diseases will be held at Bath, March 31 to April 3, to celebrate the bicentenary of the Bath Royal National Hospital for Rheumatic Diseases. Lord Horder will deliver the presidential address. In a discussion on "Gout and Chronic Rheumatism of Metabolic Origin" Sir Walter Langdon-Brown and Dr. Mathieu-Pierre Weil will be among the opening speakers. Other papers will be read, and the programme also includes a demonstration of cases at the hospital, a mayoral reception and dance, a banquet at the Guildhall, a tour of the baths, and excursions to places of interest in the neighbourhood. Particulars can be obtained from the joint honorary secretary, Dr. G. D. Kersley, 6, The Circus, Bath.

Reviews

APPENDICITIS

Appendicitis. A Clinical Study. By W. H. Bowen, M.S., F.R.C.S. With an introduction by Sir Arthur Hurst, D.M., F.R.C.P. (Pp. 202. 7s. 6d. net.) Cambridge: At the University Press. 1937.

Mr. W. H. Bowen's monograph on appendicitis is a clinical study, and in his preface the author states that his aim is to give the student and practitioner a broad outline of the common varieties of disease of the appendix. For this reason rarer manifestations such as actinomycotic, tuberculous, and malignant disease have been excluded. Aetiology, diagnosis, complications, prognosis, and treatment are discussed in a work of some two hundred pages, in which illustrative cases are also recorded. Chapters on obstructive appendicitis, appendicitis with pregnancy, and the controversial subject of chronic appendicitis are of particular interest. Mr. Bowen favours the pararectal (Battle's incision) approach in most cases, but advises the muscle-splitting incision when the disease complicates pregnancy. The discussion on when to carry out expectant treatment is clearly and logically put, and there can be no disagreement with the conclusion that unless indications for delay are definite and unmistakable the safest and wisest course is immediate operation.

In an introduction Sir Arthur Hurst writes that physicians will welcome a definite statement as to the indications for surgery in chronic appendicitis, with a very convincing analysis of a series of cases in which there has been no recurrence of symptoms over a period of several years following operation. There will be general agreement with the statement that "a man who instead of insisting on a preliminary thorough examination is ready to say, 'Let us have a look inside—we can always remove the appendix,' should have gone into business instead of becoming a surgeon." This work should have a particularly wide appeal, for there is much in it to interest radiologists and physicians as well as surgeons and general practitioners. It is a really excellent account of the aetiology, diagnosis, and treatment of the various types of appendicitis, and a most welcome contribution to our knowledge of this very frequent condition, which even to-day has a regrettably appreciable mortality.

NEUROLOGICAL DIAGNOSIS

The Diagnosis of Nervous Diseases. By Sir James Purves-Stewart, K.C.M.G., C.B., M.D., F.R.C.P. Eighth edition. (Pp. 842; 337 figures. 35s. net.) London: E. Arnold and Co. 1937.

It is a remarkable thing for a book on diseases of the nervous system to reach an eighth edition in a period of just over twenty years. That it should do so is a proof of its widespread popularity and utility. It is not uncommon for the general practitioner to complain that the diseases of the nervous system are so complex and confusing that he can make neither head nor tail of them, and yet he can hardly go through one day's work without being met with signs or symptoms associated with the nervous system. Pain, paralysis, or peculiarity of conduct are all daily problems which are difficult to elucidate from the systematic textbook, and what he wants is to be able to look up accounts of these various symptoms which will guide him in assessing the probable cause. This is just what "Purves-Stewart" gives him, and no doubt accounts for the book's success. To the erudite