

interesting suggestion was made by Dr. F. G. Bushnell in a letter to THE LANCET¹ that bodies similar to the Leishman-Donovan bodies of kala-azar might form a stage in the life-history of this organism, as also of the spirochæta pallida.

We have made several attempts to cultivate these organisms but without success, though Professor Vincent in his paper in THE LANCET² stated that the fusiform bacilli were readily cultivated in the ordinary media; the media we have employed have been agar, blood serum, bouillon, milk, and peptone water, and attempts have been made, both aerobically and anaerobically, at temperatures of 37°C. and 42°C., resulting only in a profuse growth of the common cocci and bacilli of the mouth. Owing to the ease with which these organisms may be missed if swabs and cultures are taken, incubated, and examined in the manner customary with suspected cases of diphtheria, coupled also with the fact that many cases of ulcerative and even membranous stomatitis are not examined at all with a view to their bacteriology, we would suggest that cases of Vincent's angina are by no means so uncommon in this country as the rarity of cases hitherto reported might lead one to expect. The cases described by Dr. H. W. Bruce in THE LANCET³ closely resemble those of this series in which the disease was confined to the tonsil. In addition, we have included seven cases of stomatitis in which the lesions exactly resembled those of the tonsillar cases.

Considering the frequent association of carious teeth with this disease it would be of interest to know in what proportion of cases of carious teeth, unaccompanied by membranous ulceration, the organisms of Vincent can be demonstrated; in a few cases examined by us only the ordinary bacteria of the mouth or the small curved vibrio of Miller have been seen. Since we have found that the organisms rapidly disappear from the mouth and the lesions readily improve under treatment, at any rate, in these comparatively mild cases, and since such cases are possibly infectious and if left untreated tend to progress, we have thought it worth while to place on record an account of the few cases observed at St. Thomas's Hospital during the past three months.

NOTES ON A CASE OF ADDISON'S DISEASE, RAPIDLY FATAL, WITH SYMPTOMS OF ACUTE TOXÆMIA.

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THE patient, a man, aged 38 years, was admitted to the Radcliffe Infirmary, Oxford, on Sept. 29th, 1905, under the care of Dr. W. Collier. He was sent to the hospital with a note from a medical man describing the case as one of rheumatic fever of one day's duration. The temperature was 101.2° F., rising in the first six hours to 103.8°, and the pulse was 120. The skin was not sweating. In colour it was rather dark all over the body. The face and hands were like those of a man who had worked generally in the open air and in the sun. The areolæ of the nipples were deeply and symmetrically pigmented. The scrotum and penis were unusually dark, as also were the axillæ but to less degree. There were no other areas of pigmentation on the body, or on the buccal mucous membrane, or on the tongue or conjunctivæ. There was great pain in the ankles, the knees, the elbows, and the wrists and shoulders on movement. Severe pain was produced by pressure on the plantar fascia in both feet. The joints were not reddened and no excess of fluid was detected in any of them. The heart was not enlarged but the sounds were feeble. The pulse was markedly feeble on both sides. The abdomen appeared to be normal. There was no pain. The liver, the kidneys, and the spleen were not felt. The patient was a little deaf. The urine had a specific gravity of 1017 and contained a cloud of albumin but no sugar. Casts were not looked for. The patient was quite cheerful and did not seem depressed or low spirited. He gave his own history. He said that he had been at work on the preceding day and had had to stop on account of severe pains which came on in the

knees, and within a short time invaded the ankles, the wrists, the elbows and the shoulders. He had never had rheumatism or any attacks similar to the present one. He had always been a healthy man and had taken about two or three pints of beer a day. No history pointing to tuberculosis in the family was obtained. The patient was treated with 60 grains of salicylate of sodium in the first six hours (in 20-grain doses) and subsequently with 20 grains every six hours. On the evening of Sept. 30th the temperature was 98.4° and the pulse was 106. On Oct. 1st and 2nd the temperature remained at 98°, the pulse being 96, and the patient was losing all pain from the limbs. He was taking only milk and broth. The milk he objected to—it always disagreed with him. He was sick once on each of these days—each time after taking milk. There was nothing characteristic about the vomit. On the 3rd the patient seemed a little strange in his manner and was inclined to be restless, especially at night. He was, however, quite rational and answered questions correctly. On the 4th the temperature was 97.4° in the morning. The salicylate of sodium was stopped. The amounts of urine for the first three days (Sept. 30th and Oct. 1st and 2nd) were 25, 30, and 23 ounces respectively. The bowels were opened with cascara on Oct. 1st and 2nd. The stools were normal. The patient appeared to be more ill. On the 5th the urine had altered to a brownish-red, smoky colour, and gave the blood reaction with guaiacum and ozonic ether. It contained a thick brown deposit. Under the microscope numerous red cells, a few granular casts, and much débris were seen. A number of crystals of leucine were also present. On the 6th and 7th there was profuse diarrhœa and at the same time great frequency of micturition, about from two to three ounces of urine being passed every few hours. The urine was smoky and contained a thick brown deposit of débris but no leucine. On the 6th two of the stools contained practically only bright red blood and mucus, intimately mixed. The other stools contained only a little faecal matter and darker blood. The last two or three stools on the 7th contained no blood. The patient's general condition had got much worse. He was rapidly sinking into a profound typhoid state. On the 7th the temperature rose to 100.2° and the pulse to 116. The patient complained of slight pain in the abdomen on the 6th. It was worse on the 7th. He referred it to the centre of the abdomen. Pressure just above the umbilicus caused pain. The liver dulness was one inch in extent in the nipple line but it was normal in extent in the mid-axillary line. The ears were examined and both were found to be normal. On the 8th the patient became much more lethargic and difficult to rouse. In the evening he was semi-comatose, but pressure in the abdomen between the umbilicus and the right costal margin caused a good deal of pain. On the 9th the temperature rose to 101° in the morning and to 104° in the evening, when death took place.

The post-mortem examination showed typical fibro-caseous tuberculosis of both suprarenals. No normal suprarenal tissue was seen. The right kidney was large and showed many nodular prominences; it measured five inches by two inches. On section the whole organ was converted into a series of cysts, filled with a putty-like material. The right ureter was blocked and was filled with cheesy matter and the walls were caseous. The left kidney showed marked compensatory hypertrophy and measured six inches by three inches. No tuberculous masses were present. There were two small caseous foci in the right globus major of the testis; the vas was healthy to the naked eye. The bladder and vesiculæ seminales showed no change. No other tuberculous foci were found either in the glands of the thorax or the abdomen, or in the lungs. The right internal ear was examined and was found to be healthy.

Two days before the patient died the following history was obtained from the wife. The patient was a healthy, hard-working man. On Sept. 1st he was taken ill (away from home) and had to go to bed. The chief symptoms were shivering and a change in the colour of the skin. One person, at least, said that the patient had the "yellow jaundice." The wife did not know if the whole body altered in colour. There was no sickness and the patient had a good appetite. The mind was clear. On the 6th he was able to go home but for the next week he had to keep in bed or sit over the fire as he suffered continuously with the "cold shivers." There was a discharge of "matter and blood" from the right ear. No history pointing to definite rigors was obtained. There was no information as to the

¹ THE LANCET, Dec. 9th, 1905, p. 1728.
THE LANCET, May 13th, 1905, p. 1260.
THE LANCET, July 16th, 1904, p. 135.

urine or the fæces. On the 16th the patient improved sufficiently to leave home to visit some friends, but the discharge from the ear continued. On the 25th he was well enough to start work. On the 28th the pain in the limbs began and he was admitted to the infirmary on the 29th—29 days after he was first taken ill. Death took place on Oct. 9th—39 days from the onset of illness.

There are several points of interest in connexion with this case. When the man was admitted the clinical picture was that of acute rheumatism, with the exception of the sweating. The rapid subsidence of the temperature and the disappearance of all pain in the course of 48 hours on large doses of salicylate of sodium only supported this view. It was not until the mental condition arose and the blood appeared both in the urine and in the fæces that a diagnosis of some general toxic condition was made. Although the pigmentation was marked on the external genitals and in the nipples there was none found elsewhere either in the mouth or on points of pressure. The diminution of the liver dulness and the pain in the abdomen, especially marked towards the end in the liver region, accompanied by leucine in the urine, suggested acute yellow atrophy of the liver. The presence of the high fever on admission and after Oct. 7th was also unlike Addison's disease. In addition the man had been a healthy hard-working man up to four weeks before admission. The difficulty of making a diagnosis was much increased by the history of discharge from the ear which suggested some secondary septicæmia. The case is instructive from two more points of view—history taking and routine examination. The great importance of taking accurate and lengthy histories in all cases where it is possible is not sufficiently taught to students. Too frequently the method adopted is to obtain a short history and to rush at once to the physical examination of the patient. That in a great number of cases the diagnosis is completely made from the history alone is a fact which is not sufficiently emphasised in teaching. The patient's own history should also be verified as far as possible by a few questions put to a friend or relative. The patient may himself think some little point or symptom too trivial to mention and may, in fact, as in the present case, neglect altogether a short illness of a few days. The picture of acute rheumatism, with the patient's statement that he was only taken ill the day before, I took to be sufficient and it was not until the further symptoms arose that I sought for more history from the wife. Routine examination is not, of course, possible in every case. But although one hears a very great deal about the value of thorough routine examination by the bedside it is not often one hears very great stress laid on the value of including the testes in that examination. In three very common classes of cases—namely, malignant disease, syphilis, and tuberculosis—the examination of the scrotum and its contents may be of the utmost importance and may make the diagnosis. In this case the presence of the two nodules in the globus major would certainly have helped.

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A METHOD OF REMOVING CARCINOMA OF THE ASCENDING COLON.

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AS a rule cancer of the colon has but a mild malignancy. It will be found in the natural history of the tumour that half the patients die before the growth has transgressed the limits of the bowel. Occasionally rapid growth and dissemination are seen. I know of one such case, but most cases are of such small virulence that if our technique is good we have an excellent chance of ridding the patient of his disease. The lymphatic glands apposite to the growth, by no means always carcinomatically affected, are of great resistance and stay for a long period the progress of the cancerous elements. Metastatic developments are unusual and occur only after a considerable lapse of time. They appear to have the same low malignancy as the parent growth and may give no sign of their presence for years.

These characteristics of the disease are favourable to the patient if we can give him operative success. For the surgeon

there is a good deal to aid him technically—e.g., the mass can generally be well delivered through the wound so that the resection and anastomosis can be made extra-peritoneally, the colonic area is distinctly less susceptible to germ infection than other parts of the serous surface, the blood-supply is excellent, and its valency can be easily insured. The glands are found and removed with facility and their ducts are not involved on either side till late in the disease. These assets, however, are operatively more than balanced by conditions which cause much anxiety to the surgeon.

The gut has a redundant mucous membrane, strong muscles which produce anti-peristalsis as well as its opposite, and there exists a peritoneal covering the extent of which the surgeon cannot gauge until he actually sees it. The part which he has to remove is bounded above by a natural angulation, which has probably increased a good deal with the patient's advancing years, and below by a cul-de-sac, the normal large size of which is still further enhanced by the presence of the obstruction beyond and the fermenting nature of its contents. This cæcum thus becomes almost a closed segment and when we consider the tumour ahead and the sphincter of the ileum on the hither side we do not wonder that absence of drainage allows of almost indefinite bacterial growth. The natural flora is intensified in maleficent qualities and inhibited as to its physiological uses. The cæcal and appendical mucus is much altered in quantity and character. This place, the antithesis of all for which the surgeon wishes, cannot be properly emptied or even slightly antiseptised except by a previous opening, which but partially fulfils its objects, while it certainly infects the surrounding operative area. The eminently perilous and fluid cæcal contents will have to pass over the recently made junction, the mechanical resistance of which may be high but the vital resistance of which must be lowered. The inner aspect of the stricture is probably ulcerated, which by allowing absorption further embarrasses the lymphatic glands; thus everything may be said to be in an explosive state.

These considerations influenced me recently in a case of carcinoma of the ascending colon about three inches beyond the cæcum to operate by what I believe to be an improved method. Shortly after this first case I had the opportunity of repeating the procedure and being equally pleased with the results, both at the time of operation and afterwards, I thought it worth while to detail the *modus operandi*, which, I take it, neutralises many of the above-stated disadvantages. No intestinal preparation except careful dieting is attempted. No purgation is used or antiseptic given. Enemata are administered but a purgative would only futilely irritate the bowel above the growth and possibly precipitate a perforation. The abdomen is entered through the sheath behind the rectus internal to the linea semilunaris. The tumour is located and its removal being decided on the transverse colon is pulled down, two forceps are applied to it close together, a heavy one on the proximal side, and the gut is divided with large scissors in one cut. Swabs are used to avoid soiling the cavity, and the heavy forceps attached to the gut is allowed to hang out of the wound, a proceeding which puts the mesocolon on the stretch. The branches of the middle colic artery are easily found, for they stand out by reason of the tension and the fact that they are the thickened arteries of an elderly person. Two or three branches have to be secured. The right colic artery now invites attention, and can readily be tied far back by a single ligature; this devascularises a large portion of mesocolon, which can be speedily severed by large scissors. The amount of gut at present hanging out of the wound is considerable, as the cæcum "is in the air" without support. The resulting traction shows the ileo-colic trunk in strong salience. Forceps are then placed on the ileum, about four inches from the junction of the great and small intestine, and the gut is divided; the distal end now depends from the wound, so that the whole portion to be resected is hanging by the ileo-colic artery and some peritoneum. This blood-vessel is ligatured far back, the isthmus of tissue left is divided close to it, and the resected gut, two forceps, and the ileo-colic glands fall out of the wound all together. There is no need to investigate the important ileo-colic lymphatic area, for it has gone, but the mesocolic region should be examined for glands which may have escaped the section. Thus four, or at most five, arteries have to be tied; the transverse colon is divided at right angles to its lumen, but the ileum, if it approaches the calibre of the colon closely