of pigment, and granular and fatty debris. Leucin was also found in some of the sections, but no tyrosin. Bile ducts empty. Atrophic changes most marked in purplish areas.

Special points.—Impossibility of diagnosis in the early stage from a case of simple catarrhal jaundice. Almost afebrile course. The sudden and marked alteration in the pulse rate, slow at first as in ordinary jaundice, then greatly increased as the disease approached its fatal termination. The long duration of the case. Polynuclear leucocytoses. Leucin being found without tyrosin.

General remarks on the disease.—The hemorrhages and splenic enlargement point to its being of the nature of an infectious disease or a toxemia; so far, however, no specific micro-organism has been reported.

As regards its etiology, it may possibly be due to some toxic action on the liver cells, the resisting power of which has been lowered by syphilis and alcoholism, conditions nearly always associated with the disease.

Treatment.—Hitherto this has been purely symptomatic, but judging from the beneficial results that the intravenous and subcutaneous injections of saline fluid have produced in the toxæmic condition of yellow fever and post-operative (especially abdominal) acute yellow atrophy of liver, they should be tried in this very fatal disease.

Perhaps an antitoxin will be some day forthcoming.

NOTES, MAINLY POST-MORTEM, ON A CASE OF ANTHRAX IN A SOLDIER.

By Captain L. W. Harrison,
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Private C., aged 28, 3rd Hussars, reported "sick" at the Station Hospital, Sialkot, at 6 p.m., on July 17, 1905, complaining of "fever," with headache and vomiting, of three days' duration. He was seen by Major R. N. Buist, R.A.M.C. His temperature was 103.6°F, but no other objective signs of disease were visible. A sample of blood for microscopical examination was taken from the finger, which was found to contain nothing of diagnostic importance. During the night the temperature dropped to 102°F; he complained very much of pain in the head, but was never delirious. He could not tolerate the ice-bag to his head, and vomited everything given, including water. At 5.30 a.m. on the following day he was given some water by the orderly, and spoke quite sensibly. At 5.45 a.m. he died.

Post-mortem examination four hours after death.—Post-mortem rigidity and hypostatic congestion well marked. The blood was fluid in all the veins. Pericardial sac contained a little clear fluid. Heart weighed thirteen and a half ounces; no sign of valvular disease. Lungs, right, nineteen ounces; left, seventeen ounces, congested. Spleen weighed
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fourteen ounces, and was very congested and friable. Kidneys, right, eight ounces; left, seven ounces; both congested. Liver weighed sixty-seven ounces, and was very congested. Stomach, mucous membrane very injected. Intestines, mucous membrane very injected. Ten inches from the ileo-caecal valve was an ulcer, half an inch in diameter, the floor of which was white, and it was raised slightly above the surrounding mucous membrane. No other ulcer was seen, nor were Peyer's patches or solitary follicles enlarged. Brain weighed fifty-seven ounces. The cerebral capillaries were intensely congested, and the dura mater adherent to the pia-arachnoid in two places over the occipital lobes.

Smears of blood from brain, spleen and liver, were seen on staining and microscopical examination to be crowded with stout, square-ended bacilli, many (spleen smear) containing spores, and indistinguishable from anthrax bacilli.

Owing to apparatus not being at hand when the necropsy was performed I made no culture then, but after examination of the smears I reopened the body, and took cultures in broth and on agar from the spleen, after searing the surface in the usual manner. Twenty-four hours later the agar stab showed a very small white point, which was a pure culture of a bacilli similar to that seen in the smears, but joined end to end more in chains. These bacilli were quite non-motile in hanging drop. In the broth cultures a small motile bacillus grew, which, as I was going on leave, I had not time to investigate. I carried the agar stab cultures to Murree, and there made sub-cultures in broth and gelatine stab, which grew in the manner characteristic of anthrax.

The post-mortem appearances of the organs, and the results of the microscopic and cultural examinations, leave little doubt that this was a case of anthrax, and that the initial lesion was very probably the ulcer in the ileum noted above.

The case is interesting, I think, as illustrating the importance of a microscopical examination in cases of rapid death, where no definite signs of any particular disease were apparent during life. Without a microscopic examination the diagnosis in this case would have been impossible, and the vigorous disinfection which took place as a result of the diagnosis being established would never have been undertaken. Knowing the persistence with which anthrax infection lasts, the fact that the deceased was sick for three days in his barrack room, and that the hospital mortuary was naturally badly infected from the post-mortem, the results of such an omission may be safely left to the imagination.

I would add that rubber gloves should be worn when making necropsies in India, particularly during the hot weather, when one's hands are never free from scratches, as a result of the irritation of sand-fly and mosquito bites. The use of rubber gloves on this occasion would have relieved my mind, and the minds of those who assisted at the necropsy, of a certain amount of reasonable anxiety, and would have saved me from the
 annoy lance of a carbuncle on my wrist, which developed as a result of the liberal use of pure carbolic to a scratch there.

Regarding the cause of infection in this case, nothing definite can be said. The man was not employed with horses, being on police duty, and the only clue which has been obtained is that, a few days before he was taken ill, in the performance of his duty, he had to examine the loads of some natives passing through the lines carrying hides. Anthrax is fairly prevalent amongst animals in the neighbourhood.

THE LOCAL TREATMENT OF GONORRHEA.

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In order to prove the statement that urethral hand injections reach the membranous urethra, and also the height at which to hold the douche tin in urethral and intravesical irrigations, the following experiments were made on cadavers. With an ordinary four-drachm glass syringe a urethra was injected with a strong solution of methylene blue. On slitting up the urethra on a director the mucous surface up to and including the membranous urethra, no further, was stained. One was astonished to find that an elevation of three feet was sufficient to place the douche tin in order to secure intravesical irrigation, methylene blue being found in the bladder. With an elevation of two and a half feet the prostate was stained with methylene blue. It does not follow that the same results are obtained on the living, yet the results of these experiments have confirmed me in my opinion, based on experience in treatment, that it is impossible to effect a complete cure of posterior gonorrhoeal urethritis, gleet, or prostatitis merely by using hand-injections. This does not apply to simple anterior gonorrhoeal urethritis. Experience gleaned at the London Lock Hospital, whilst testing the effects of different injections, showed that with a solution of 5 per cent. argyrol one was able to stop all obvious discharge within four to ten days.

In a series of sixty-four cases, as reported in the *Lancet*, December 19th, 1903, and the *Scottish Medical and Surgical Journal*, May, 1904, results were obtained from the point of rapidity of cure much in excess of other methods. Following up the cessation of the discharge by the use of an astringent such as sulphate of zinc, one grain to the ounce, in some cases a cure was effected within fourteen days. A point of great importance was the necessity of giving the patient printed or written instructions as to when and how to inject. The average individual consulting a medical man for a first attack of gonorrhoea is, as a rule, too flurried to remember in detail any instructions. More often still he falls...