In the treatment of that troublesome and painful complaint, boils, more especially in generalized furunculosis, and in cases of acne, excellent results are being obtained from staphylococcus vaccine. I doubt, however, if satisfactory results will always be obtained by the employment of standardized vaccines, but rather from a vaccine prepared from the organism that caused the infection in each individual case, and this, I believe, may be said to apply generally when discussing treatment by the opsonic method, excepting, perhaps, in the case of tuberculin. The treatment by this method of gonorrhoeal rheumatism, ophthalmia, and protracted gleet has strong advocates. It opens out to the obstetrician and gynaecologist a wide area of usefulness; finally, in diseases due to infection by the *Bacillus coli*, such as appendicitis, cystitis, frequently due to this infection, and certain suppurative gall-bladder troubles, the opsonic method, in conjunction with operative procedure, gives promise of great usefulness.

These are a few instances only, and might be multiplied indefinitely, but they may serve my purpose if only they impress the fact that this method is at least deserving of serious consideration by every practical surgeon.

Therapeutic Immunization.

There is yet another duty that will devolve upon the surgeon in the near future, no less than upon the general practitioner, and that is the duty of carrying out the work of therapeutic immunization. Sir Almroth Wright, in a recent article upon this subject, says:

There will, if I mistake not, devolve upon the general practitioner in association with the surgeon all that department of immunization which consists in directing the protective agencies which are available in the patient's blood to the destruction of the microbes in the local focus of infection. And in the future I foresee that the surgeon also will be in a very real sense an immunizer. He will, I doubt not, except in those rare cases where there is an isolated bacterial focus and where the complete extirpation of that focus is practicable and advisable, direct all his operations in connexion with bacterial diseases to the attainment of immunization.

I conceive, for instance, that where he carries his incision through infiltrated tissues he will feel that his work remains incomplete till he has secured that free flow from his wounds which is essential to immunization.

Again, when he deals with a suppurating focus he will, I take it, concern himself not only with evacuation and effective drainage, but will realize that a continued suppuration without the achievement of immunization in a case that has been operated upon is the reproach of surgery.

Roentgen Rays and Finsen Light.

I take it that the modern surgeon must familiarize himself with the use of the x-ray and Finsen light in the diagnosis and treatment of disease. In these days of specializing one is, perhaps, too apt to leave the useful work of the x-ray department in the hands of the expert. I venture to think that the surgeon would in all cases where practicable verify his own diagnosis and be in a position to indicate the line of treatment in suitable cases. I am not one of those who deem it essential that all simple fractures of long bones should be submitted to this process, but I do think that in every complicated case diagnosis should be confirmed by this means, as a valuable aid to treatment no less than for the protection of the surgeon in the event of possible litigation, a recent and painful instance of which will lie in the minds of all.

[Mr. Hough invited the members to visit the new County Hospital to see for themselves what modern science applied to hospital construction was able to produce.]

FATTY LIVER IN KALA-AZAR.

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IN the BRITISH MEDICAL JOURNAL for May 30th, 1908, I pointed out that in cases of kala-azar, the liver is frequently enlarged. This enlargement is in some cases due to an intracellular cirrhosis, as pointed out by Major Rogers.¹ In one case I observed extensive fatty changes in the liver, which, I consider, is a very rare condition in kala-azar. It has not, as far as I am aware, been described by any previous observer.

Condition on Admission.

The patient, aged 18, was admitted into my wards with a history of fever coming on irregularly for about eight months. He was markedly emaciated and cachectic. The spleen was slightly enlarged, extending about an inch below the costal arch. The liver extended about an inch and a half below the costal margin. The spleen blood showed a large number of Leishman-Donovan bodies. The lungs and the heart showed nothing abnormal. There was no complication at the time of admission into the hospital.

After-History.

After a fortnight he began to suffer from very obstinate diarrhoea, which terminated fatally. There was no ascites, and there were no enlarged veins in front of the abdomen, nor other signs of portal obstruction. There was no oedema in the lower extremities. The fever was irregular, sometimes presenting the double remittent type and sometimes hectic. The patient died in the hospital twenty-five days after admission. He was treated with injections of atoxyl. A few days before death he suffered from an abscess in the right arm and also an inflammatory swelling in the left.

Blood Count.

Red corpuscles, 1,957,000; white, 2,723; proportion, 1 in 720.

Post-mortem Examination.

The body was emaciated, subcutaneous fat diminished; heart valves healthy; lungs, nothing abnormal.

The liver was enlarged, smooth, and yellowish in colour. Its margin was somewhat rounded; on section it had a

Fatty liver in kala-azar. A, Delicate connective tissue; B, rounded infiltration; C, atrophied liver cells; D, newly-formed bile capillary; E, fat; F, pigment granules.

yellow, mottled appearance. When the surface was scraped, droplets of fat could be seen on the knife. Microscopically (see diagram) extensive fatty degeneration of the liver cells was noticed, rather more about the peripheral portions of the lobules of the liver. In many places the liver cells were shrivelled, and many contained small oil globules scattered throughout their protoplasm. In a few of the liver cells there could be seen deposits of granules of golden-brown pigment resembling haemosiderin. In some of the lobules there was a very marked engorgement of blood in the centre (not shown in the diagram). In some places there was slight formation of new bile ducts. There was also a growth of delicate connective tissue appearing between the liver cells (intracellular).

REFERENCE.

¹ *Fevers in the Tropics*, by L. Rogers (1908).

UNDER the will of the late Mrs. Mary Bridgett Johnston, of Widcombe, near Bath, the Cancer Hospital, the British Hospital and Home for Incurables, and the Royal Free Hospital, Gray's Inn Road, each receives a sum of £1,000.