

tomy is not an essential help in the cure of perforated gastric abdominal ulcer. The suture of the perforation is the most important step. Patients thus operated upon should, however, continue to be treated like other cases of ulcer after a successful operation for the perforation, i. e., gastro-enterostomy and resection can be done in proper indications at some later period.—*American Journal of Surgery*.

EXPERIMENTAL RESEARCH IN SYPHILIS.

H. Noguchi New York (*Journal A. M. A.*, April 20), reviews the history of the researches for the discovery of the casual organisms of in the *pallida* fixation test a gauge of the defensive activity of the infected host." The article concludes with a record of cases used in a demonstration of the *pallida* test in Chicago, and a bibliography. syphilis and the work which has been done with the *Spirochaeta pallida* since its discovery by Schaudinn and Hoffmann. He claims that so far he alone has obtained pure cultures of this germ and points out how those claimed by Mühlens and Hoffman differ from the true *pallida*. He describes his method of obtaining it from the orchitis material of rabbits and from human syphilitic lesions and describes the points of difference between it and the other spirochetes that more or less closely resemble it. In identifying a cultivated spirochete with *Spirochaeta pallida* he says the following conditions must be fulfilled: 1. The spirochete must be morphologically correct. 2. It must not produce a putrefactive odor. 3. It must not grow without the addition of fresh tissue. 4. It must bind complement with the immune serum (rabbit is preferred) produced by means of repeated injections of the tissue *pallida* (to be obtained from syphilitic orchitis). 5. It must give an allergic reaction in certain cases of syphilis. 6. It must be pathogenic. This last is highly important, but we cannot exclude the possibility of an attenuated, non-pathogenic *pallida*. Each of these points is taken up and discussed and Noguchi goes at some length into the question of the allergic reaction. This has been sought by a number of investigators, but they have been much handicapped by the lack of a pure *pallida* extract. After obtaining the pure cultures of several strains of the *pallida* in 1910 and 1911 he commenced experimental work on rabbits to ascertain if they could not be made allergic to the extract of pure *pallida*. By repeated intravenous injections of the *pallida* antigen into rabbits for several months, and then giving them a month's rest, he tested them with the extract which he calls "luetin," given intradermally. A proper control was provided. They all reacted with marked inflammation, some leading to pustulation in several days. No normal