

In conclusion the author states that in his opinion the future success of lumbo-sacral puncture must rest not upon the simple evacuation of the liquid, but upon its evacuation followed by the injection of an artificial serum which shall act either by the direct action of some contained medicament on the seat of the disease or by its inoculation effect analogous to that of anti-diphtheritic serum, and promises an early contribution to this method of treating infectious diseases of the cerebro-spinal meninges.

PATRICK.

50. LUMBAL PUNKTION (Lumbar Puncture). S. Bull (Norsk. Mag. for Lægevid, 11, 1896, p. 498).

The author has performed lumbar puncture in four cases of tubercular meningitis. In one instance only 8 cc. were withdrawn and no tubercle bacilli found, while in the three other cases they were present, the quantity of fluid taken being 43-57 cc. Injection of this serum into the abdominal cavity of guinea pigs in one instance was, and in another was not, followed by results. Therapeutically considered, the puncture has a temporary palliative effect, but is of diagnostic importance. The author urges the necessity for caution, especially in private practice.

VOGEL.

51. SUL VALORE DIAGNOSTICO E CURATIVO DELLA PUNTURA LOMBARE (The Diagnostic and Curative Value of Lumbar Puncture). G. Mya (Settimana Med., 1897, pp. 4 and 5).

G. Mya has performed 80 lumbar punctures in 23 cases, 15 of which were tubercular meningitis and encephalitis. Only in two instances were tubercle bacilli found in the fluid. His opinion is that when the serum is sterile and exudate-like (containing moderate numbers of leucocytes, flecks of ependyma, and clotting slightly) tuberculosis is probably present, while in serous meningitis the fluid generally contains staphylococci, and in chronic cases is "transudate-like." He reports that in tubercular meningitis a distinct alleviation of the cerebral symptoms took place after the puncture. In two cases where clinically a diagnosis of the tubercular form had been made, the presence of staphylococci in the fluid pointed to an "early" meningitis, which the outcome showed to be the case. In cases of tumor the demonstration of a secondary hydrocephalus may be of greatest importance. Diagnostically, the author thinks highly of lumbar puncture; therapeutically, it may be of much value in some cases of acquired hydrocephalus.

JELLIFFE.

52. SUL VALORE DIAGNOSTICO E TERAPEUTICO DELLA PUNTURA LOMBARE (The Diagnostic and Therapeutic Value of Lumbar Puncture). Jemma and Bruno (Estratto del Arch. Ital. di Clin. Med., 1896).

The authors give a very complete bibliography of the subject, including French, German and Italian works. Then follow reports on their own cases, 25 in number, as well as a thorough discussion of the operation itself and possible complications through the alteration of intracranial pressure. The physical, chemical, microscopical and bacteriological properties of the liquor are all of diagnostic importance. Clear or only slightly turbid fluid is found in tubercular meningitis; that of the infectious or epidemic forms is turbid or purulent. Of the chemical characteristics the most valuable is the percentage of albumen. In cases of tubercular meningitis it rises to 1 per cent.; in acute forms of meningitis it is higher than in chronic, and where brain tumors are