

(70 to 90) in the remaining cases. Features common to all were irregularity and variability, the frequency rarely being as high as the temperature would lead one to expect. An irregular, quickly variable pulse is nearly always present when the disease has obtained a firm foothold. In the majority of cases (fifty) the temperature rose suddenly to a height varying from 101 to 105. In eleven cases the rise was more gradual, taking from eight to sixteen hours to register above 100, and four cases were entirely afebrile. Headache was always present, but only in twenty-three cases was it definitely allocated to the occipital region, the remainder showing a general ache all over the head of a severe and, in a few cases, unbearable nature. The general appearances in the majority of patients was typical: A flushed face of a slightly dusky tinge, and an extremely worried and anxious expression, coupled with dullness and apathy. General malaise and, in a few cases, a very definite nasopharyngeal catarrh, such as precedes measles. Vomiting was absent in thirty-two cases. Herpes, when present, always affected the lips, but fifty-two cases showed no sign at all of this affection. The pupils: Two main features were noticed in all cases as being constant: (1) dilatation generally equal, sometimes unequal; (2) reaction to light always sluggish. Strabismus was absent in fifty-six cases; nystagmus, absent in fifty cases; ptosis, absent in fifty-five cases; conjunctivitis, absent in fifty-five cases; suppurative choroiditis was present in three cases. The knee jerks were absent in sixteen cases; Babinsky, present in twenty-three cases; abdominal reflexes absent from the first in fifty-six cases. A leukocytosis was present in all cases. The counts varied from 28,000 to 32,000.

Stiffness of the neck: This sign was of the utmost value. In no single case was the stiffness absent, varying naturally in amount from the severe type—giving later the true retraction of the head and perhaps opisthotonos—to the milder cases with comparatively slight stiffness, increased when the head is flexed. Definite retraction was observed in forty-two cases, but it was not a decided feature until a date varying from two to five days after the onset of the disease. Kernig's sign, too, was almost equally constant, there being only three bilaterally found in 58 of the cases. Lumbar puncture is a need, and at the earliest moment, especially in patients presenting fever with stiff neck and no other leading symptoms.

Nobecourt, P., and Richet, C., Jr. INCIDENCE OF CEREBROSPINAL MENINGITIS IN FRENCH ARMY. [*Presse Médicale*, Sept. 26, 1918.]

Endemoepidemiological data are presented concerning the occurrence of meningococcic cerebrospinal meningitis among the French troops. The disease disappeared during the latter half of the year 1917, but reappeared in the month of December and underwent an epidemic recrudescence in the first half of 1918. Disseminated cases occurred at various

points in the army, and likewise aggregations of cases in the same units without, however, the production of actual epidemic foci. American troops seemed predisposed to the disease. The two forms of the meningococcus, A and B, were detected in the same infected foci. Severe meningitis began to be noted with the appearance of the B type of meningococcus, which seems to be particularly virulent. Polyvalent serum appeared to have but little action on it, and often it resisted even a specific serum.

Lacy, G. R. THE BACILLUS INFLUENZÆ IN SINUSITIS AND MENINGITIS. [Journal of Laboratory and Clinical Medicine, Nov., 1918.]

Bacillus influenzae were recovered from the spinal fluid of two infants who finally died with influenzal meningitis, and the organism was also found in cultures from two cases of frontal sinusitis. The clinical histories and bacteriological studies are reported in full. Two types or forms of the *Bacillus influenzae* were present—the small, short type and the long filamentous or streptothrixlike forms (involution forms). Lacy emphasizes the importance in cases of meningitis, of indefinite etiology, of centrifuging the spinal fluid and culturing it on various media, always using blood agar. At least forty-eight hours' observation should be made before submitting a negative report. Sinus infections with *Bacillus influenzae* should have early and adequate drainage to prevent the danger of a complicating meningitis. In one of the cases of frontal sinusitis a vaccine was prepared and given at four-day intervals. There was a decided improvement in the patient's general condition. Vaccine therapy was not so successful in the second case.

Royster, L. T., and McDowell, W. P. MENINGITIS. [Journal A. M. A., Jan. 11, 1919.]

These authors give an account of the outbreak of meningitis in that city under conditions of overcrowding and especially rigorous weather. They describe the local geographic conditions, and give the statistics of the disease. Between Jan. 1 and May 15, 1918, there occurred in the city and its contiguous suburbs, forty cases of cerebrospinal meningitis—twenty-two of the patients were male and eighteen were female, thirty-one white and nine colored; nineteen over 15 years and twenty-one under; twenty-two died and eighteen, or 45 per cent., recovered. Several cases have occurred since, all recovering, which, if added, would make the percentage better. The severity varied from mild to fulminant, death in the latter often coming within a few hours of the onset. The symptoms are described, chiefly those ordinarily observed. In the fulminant cases the early use of serum appeared to have no effect. Not one sign with the exception of the retraction of the neck was constant enough in the early stages to be of diagnostic value. In all cases there was a definite facies, a peculiar fixed stare which is almost pathogno-