

**Secondary Hemorrhage Following the Application of Leeches.**—E. WEILL and C. NOURIQUAND (*Presse. Méd.*, No. 87, November, 1911, 881) describe, in addition to primary hemorrhage following leech applications, in certain cases a secondary hemorrhage at the site of application, developing three and one-half to five hours later, often difficult to control, and of considerable severity. They have observed this in 6 of 100 cases, in patients of varying ages and both sexes. A striking feature is that in all cases there existed an enlarged liver, with or without chronic cardiac lesions, albuminuria, and nephritis. They consider the hepatic condition of especial importance, but admit from careful analysis, that the number of leeches applied may play a part in the quickness of development, and severity of the hemorrhage. Similar observations of general hemophilia after leech applications have been made. The phenomenon seems best explained by assuming absorption of hirudine deposited by the leeches at the point of application. This may be very small in amount, but increased by the number of leeches. For experiments show that an infinitesimal quantity of hirudine in the plasma renders it anticoagulant. Weill and Nouriquand have demonstrated this *in vitro* by diluting "hirudinized serum," and testing it with 50 or 100 times its content of blood; or by adding equal amounts of calcium chloride or diphtheria toxin without coagulation. Three cubic centimeters of "hirudinized" plasma, with equal amount of the sediment after centrifugalization were injected into a guinea-pig. Twenty minutes later severe hemorrhage developed at the sites of injection, lasting for an hour and ten minutes. In three other animals similarly treated, wounds bled more freely and for a longer time than control pigs similarly incised. Weill and Nouriquand conclude that under certain conditions hemorrhage may develop after leech applications in consequence of a hemophilia due to hirudine. Investigations have been made showing that hirudine is a nucleoprotein, which they hope to demonstrate in the blood of such patients.

**Deviation of Complement by the Serum of Healthy Diphtheria Bacillus Carriers in the Presence of Diphtheria Toxin.**—E. CATHOIRE (*Compt. rend. Soc. de biol.*, Paris, 1911, lxxi, 315) shows that individuals are found in whose nasopharynx toxic strains of *B. diphtherie* are growing without the least evidence of injury. Such are usually not convalescent from diphtheria; they are generally not affected by local disinfection. Cathoire has attempted to investigate the mechanism of this immunity by testing the patients' serum against diphtheria toxin on the assumption that the bacilli are pathogenic only when their toxin is able to destroy the natural defence of the organism. The method was by trying the complement-fixation reaction of the serum of such carriers in the presence of diphtheria toxin. The sera of 5 patients were considered, in whom toxic bacilli had been found in greater or less abundance for several months. Cathoire first demonstrated that the strain of toxin used did not deviate in doses of 0.5 c.c. a hemolytic system of 1 c.c. of sheep's corpuscles diluted and sensitized, activated by a sufficient quantity of fresh guinea-pig serum. He obtained sharp deviation of the complement, however, with 0.1 c.c. of toxin in the presence of carriers' serum in doses varying from 0.1 to 0.5 c.c. (the power of its hemolysis being first established).

Control, by serum of uninfected subjects showed the integrity of the complement in 9 of 10 cases. Whether in the one case a natural immunity or one acquired from previous infection was concerned the author cannot state.

**Finger Phenomenon: A New Diagnostic Sign of Organic Hemiplegia.**—ALFRED GORDON, (*Jour. Amer. Med. Assoc.*, 1911, lviii, 1591). The paucity of diagnostic reflex phenomena in the upper limb is striking. The need of such signs is evident in differentiating certain cerebral lesions from spinal or other changes. Gordon reports the following sign in 8 cases of complete hemiplegia: The patient's forearm is elevated. The observer's thumb is pressed against the pisiform body, especially on its radial side, taking care not to press on the extensor muscles or the dorsal surface of the wrist. The patient's fingers are seen to extend, and sometimes to spread in fan-like form. The extension sometimes involves only the last two fingers; in other cases all five. This phenomenon is not very marked in old hemiplegia with marked contracture. In 6 cases of recent hemiplegia (two to six months) this reflex was prompt. In 2 cases it was only obtained after two or three trials. For control, 15 normal patients, 4 cases of brachial palsy of poliomyelitic origin, and 3 cases of hysterical hemiplegia were tested; the reflex was negative in all. Gordon concludes that between this and Babinski's phenomenon there is an obvious analogy; that further observation in many cases for its constancy is necessary.

**Brill's Symptom Complex and Typhus Fever.**—G. A. FRIEDMAN (*Arch. Int. Med.*, 1911, viii, 4, 427) considers Brill's original article describing a symptom complex characterized as "an acute infectious disease of unknown origin and pathology; of short incubation period, four to five days; a period of continuous fever, accompanied by intense headache, apathy, and prostration; a profuse and extensive erythematous maculopapular eruption; all of about two weeks' duration, whereupon the fever ceases by crisis or rapid lysis, when all symptoms disappear." Brill believes the complex cannot be considered typhus. Friedman believes that the disease in question is in no way different from numbers of typhus cases observed in countries where typhus is endemic, or from sporadic cases observed in the United States and elsewhere. This he thinks is supported by a review of modern literature on typhus, with especial reference to differentiating it from other diseases by modern methods which older observers (cited by Brill) could not employ. From Friedman's own experience of three severe epidemics of typhus fever in Russia, he considers that the picture of Brill's disease is in no way different from his observations of the less severe authenticated cases of typhus, in course, symptoms, and complications. From a review of the epidemiology of typhus, he believes that in many parts of the world the disease is endemic, and may be present for a long time without leading to an epidemic, and that its mortality has considerably decreased wherever good ventilation, abundance of light, and good hygienic conditions exist. Both clinical and experimental observations suggest that lice transmit typhus. If this be provisionally accepted, it throws additional light on the apparent immunity of Brill's ward patients to infection from neighbors