The head and eyes were slightly turned away from the left; there was ptosis of the left eyelid and exophthalmos with œdema. The sixth nerve was not affected. The left pupil was widely dilated, and did not react to light. The condition of the patient remained the same until February 7, when he appeared a little better; but he did not become conscious until February 11. The motor oculi was completely paralyzed. An ophthalmoscopic examination on March 10 showed a choked disc on the left side.

From January 24 to March 2 the temperature oscillated irregularly between  $98.6^{\circ}$  F. and  $104^{\circ}$  F. After the latter date it became normal; at the same time the condition of the patient improved. The treatment consisted of electricity, hypodermic injections of strychnine, and for the ear merely antiseptic dressings.

The patient left the hospital on June 15. He considered himself cured, and was pronounced fit to resume military duties, which he did, without troubling himself in the least about his ear. Nearly a year later, on May 21, 1894, he came to the clinique of otology with all the signs of acute meningitis, of which he died four days later. In the presence of those signs operation was out of the question.

At the autopsy an extra-dural collection of pus was found on the posterior surface of the petrous bone. The dura opposite this focus was mortified, and of a greenish colour. There were signs of former inflammation of the cavernous sinus—namely, adhesion of the wall to the bone, and organization of the thrombus. There was fibrino-purulent meningitis at the base of the brain. Chichele Nourse.

Simon, R. M. (Birmingham).—A Case of Acute Meningitis and Cerebellar Abscess. "Birmingham Med. Review," May, 1903.

The patient, a healthy girl, aged eighteen, had had discharge from both ears from early childhood, which had ceased for the previous five months. Great pain in the head, with temperature  $97^{\circ}$  F.; pulse 50; pupils dilated, face flushed. Seen on March 10; died on March 13; temperature rose to  $100^{\circ}$  F. just before death.

Post-mortem examination revealed pus in left middle ear, abscess in left lobe of cerebellum, pointing outwards on the lateral border between the inferior and superior surfaces. Pus in the dura and beneath it along the longitudinal fissure. Pus from the abscess cavity showed abundant colonies of pneumococcus, a few staphylococci and streptococci. There was a doubtful history of influenza a fortnight before she was seen, and the pneumococcus is thought to have stirred up the old otitis media and reinfected the region. Barclay J. Baron.

## THERAPEUTICS.

Cairns, D. Louis.— On the Treatment of Diphtheria by the Intravenous Injection of Antidiphtheritic Serum. "Lancet," December 20, 1902.

The writer thought that the mortality from diphtheria, much reduced as it has been, might be further curtailed by (1) the exhibition of larger doses than those generally recommended, and (2) by the intravenous use of the remedy in certain cases. A number of cases are quoted to support these views. The dose employed subcutaneously varied from 4,000 to 20,000 units, and intravenously from 20,000 to 35,000 units. No untoward results, beyond the usual serum rash, pyrexia, etc., were noted. The general indications for the intravenous method are the following: (1) malignant forms of the disease; (2) any marked involvement of the lungs; (3) moribund condition of the patient on admission; and (4) profound toxemic condition of the patient. StClair Thompson.

Semon, Felix.—A Demonstration of some Experiments on the Nature and Specific Treatment of Hay-fever. "Brit. Med. Journal," March 28, 1903.

In November, 1902, Professor Dunbar, Hamburg, reported that he had succeeded in isolating from the pollen of certain grasses a toxic substance, which, when applied to the mucosa of certain regions in persons predisposed to hay-fever, produced the characteristic symptoms of this affection, whilst when applied in a similar fashion to persons not predisposed no disagreeable sequelæ followed.

By injecting the pollen of certain grasses into the circulation of various animals he had succeeded in producing an antitoxin, which when employed in persons upon whom the toxin produced symptoms of hay-fever at once aborted the attack.

The author, having been supplied with some of the toxin and some of the antitoxin, made experiments to determine its value or otherwise. (The experiments are fully detailed in the writer's paper.)

The writer, as a result of the various experiments, considers that the following conclusions may be drawn:

"1. There can be no doubt that Professor Dunbar has succeeded in extracting from the pollen of certain grasses (maize, wheat, rye, *Anthoxanthum odoratum*, *Agropyrum repens*, *Cynosurus cristatus*, etc.) a toxin which when instilled into the eyes or nostrils of people predisposed to hay-fever produces in these parts the characteristic subjective and objective symptoms of the disease.

"2. The toxin, when injected into the eyes or nostrils of people not predisposed, produced in the great majority of cases no symptoms whatsoever, but it certainly appears from Dr. T.'s and my own experiences as if there were instances of transition in which, although the persons experimented upon never suffer from typical hay-fever, they are yet more susceptible to the influence of the toxin than the ordinary run of people.

"3. The effects of the toxin in people suffering from hay-fever are as variable in intensity as are the attacks of the affection itself, both with regard to the local and the constitutional symptoms.

"4. Professor Dunbar's antitoxin certainly produced immediate disappearance of the subjective, and after a few minutes great amelioration of the objective, symptoms.

"5. The mixture in equal parts of a toxic solution (1 in 500) and the antitoxic serum suffices to neutralize the specific effects of the toxin.

"6. The effects of the antitoxin appear in some instances to be sufficient to prevent a reappearance of the subjective symptoms. whilst in other instances repeated instillations of the antitoxin were required to produce ultimately the return to normal conditions."

W. Milligan.