noted in the ventricle on the opposite side in his case. Internal hydrocephalus is largely occipital as there is less white substance here to interfere. The occipital lobe stands puncture well.

McNab, G. CEREBELLAR ABSCESS COMPLICATING MASTOID EMPYEMA. [Med. Jour. South Africa, Nov., 1917.]

A girl of ten was admitted to the hospital with typical mastoiditis and was operated upon within 12 hours. A complete exenteration of the mastoid was done with exposure of the middle cranial fossa and lateral sinus. The following day vomiting set in and occipito-frontal pain was complained of. Pulse and temperature normal. This continued for ten days when the little girl began to show incoördination of her corresponding arm in that she was unable to point accurately to the tip of her nose with her right index finger. She also had difficulty in drawing a horizontal line to stop at one drawn perpendicular but passed it by 2 or 3 mm. (hypermetria). Her pulse fell to 56 and her temperature fell to subnormal. The mastoid wound was accordingly reopened and carefully searched, and as no trace of thickened dura could be found in the cerebellar region the mastoid incision was extended backwards and downwards and a craniotomy carried out with a Doyen's trephine. The following day there appeared slight mental dullness and delayed cerebration. She had well-marked adiadokokinesis and she could not touch the sound knee with the heel of the affected side. She could not make a dot on a piece of paper but could make a line instead of a dot. The craniotomy flap was reflected and after due preparation the brain was entered with a blunt tenotome inwards and strongly forwards. An abscess was reached and about 2 drams of foul smelling pus evacuated. Uninterrupted recovery.

5. MENINGES.

Delanglade. TREATMENT OF SUBDURAL HEMATOMA THE RESULT OF WAR INJURY. [Presse Medicale, Dec. 3, 1917.]

Delanglade reports on two cases of skull wound by shell fragments, with subdural hematoma. The dura, upon exposure, was found blue in color, tense, devoid of pulsations, but unperforated. One patient was in complete coma, the other in a state of concussion with vomiting and mental confusion. No incisions in the dura were made, but the injured soft tissues were excised, the osseous defects regularized, and the wounds entirely closed save for the institution of filiform drainage. No complication followed. The author is inclined to agree with De Martel that primary opening of the dura is never indicated in cases of this type. Decompression is sufficient to relieve pressure, with lumbar puncture added, if required. Hasty incision of the meninges and exposure of a focus of cerebral contusion to the air opens the portals to infectious complications. A hematoma left undisturbed will probably become absorbed, and

if exposure is later required, the adhesions formed will have circumscribed the morbid focus.

Guillain, G. MENINGEAL HEMORRHAGES IN WAR PATHOLOGY. [Pr. Med., Sept. 5, 1918.]

Meningeal hemorrhages make up an important chapter in the war injuries, resulting both by reason of projectiles and from faulty aviation landings or from falling. Meningeal hemorrhage may escape detection, or symptoms later may reveal it only later, unless lumbar puncture is done. Shell concussion, in addition to the meningeal hemorrhage, may give rise to bleeding from lungs, nose or stomach. Excitement, with confusion, exaggerated tendon reflexes, bilateral clonus and Babinski, contralateral reflexes, and defense reflexes, mydriasis, uneven pupil reactions, disturbance in reaction to light, and massive albuminuria. These are among the most frequent symptoms. In some jaundice suggests meningeal hemorrhage. In a number there was high temperature for days not due to infection but to disturbance in the heat regulatory mechanisms. Lumbar puncture is not only of value in diagnosis but also therapeutically.

Ryland, A. LATERAL SINUS DISEASE; INFECTION OF MENINGEAL SPACES; RECOVERY. [Jour. Laryngol., Rhinol. and Otol., March, 1917.]

The lateral sinus disease followed a suppurative otitis media of the left ear of five months' duration complicated by acute mastoiditis. At operation, however, no clot within the sinus was found. The conditions present were the following: (1) Diffuse osteitis of the mastoid process and cells. (2) Perisinus abscess. (3) Phlebitis of the lateral sinus wall. (4) During the period of convalescence there appeared marked retraction of the head, stiffness of the legs and Kernig's sign. There were no ocular signs of facial twitching. Lumbar puncture was negative, and subsequent to the puncture the temperature dropped from 104 to normal. A second lumbar puncture revealed a growth of streptococcus.

DeMassary, Tockman and Luce. MUMPS MENINGITIS. [Bull. de l'Acad. de Med., July 3, 1917.]

In 635 soldiers suffering from mumps there was a lymphocytic meningeal reaction in 56 cases and of these 16 developed meningeal symptoms. In addition to the lymphocytosis the cerebrospinal fluid in mumps generally showed an excess of albumin, very frequently a reduction in chlorides and almost always an increase in sugar.