spinal meninges. In the former group, the cerebro-spinal, we have now, perhaps, a means of diagnosing more accurately between a hemiplegia due to hæmorrhage and one due to softening.

In five cases of softening of the brain the spinal fluid was normal in four instances; in the remaining case there was a slight lymphocytosis.

In cases of mumps a lymphocytosis may arise and, being accompanied by headache and bradycardia, may indicate an inflammatory implication of the meninges.

In certain cases of infection, *e.g.*, pneumonia, typhoid, etc., the lumbar puncture has enabled the authors to determine whether certain nervous symptoms indicated or not a microbic invasion of the central nervous system.

In cases giving doubtful results, the puncture should be repeated at intervals, and by such series of punctures we shall have the means of determining the occurrence of a meningeal reaction in this or that disease.

Lumbar puncture has further a certain therapeutic value, in particular as a palliative for the relief of pain. A case of labyrinthine vertigo is also reported in which the vertiginous seizures were greatly benefited by the withdrawal of 15 c.c. of fluid.

Practically no bad results followed the 223 punctures recorded by MM. Chauffard et Boidin. A little headache was noted; in three cases (two of zona, one a syphilitic case) there was some vomiting. In one case (of pneumonia) a lateral puncture, rather painful, was followed by a hæmatoma, and this threatened suppuration. This single case of mishap would have been avoided by a median puncture.

HARRINGTON SAINSBURY.

Of the Value of the Lumbar Puncture in Mental Disease [Die bedeutung der lumbalpunktion für die psychiatrie]. (Cbl. f. Nervenheilkunde u. Psychiat., April, 1904.) Nissl, Heidelberg.

This is an elaborate paper, in which very careful observations were made on the physical characters of the cerebro-spinal fluid, its chemistry—in particular its richness or poverty in albumen—the characters of the formed elements present, and (very roughly) the pressure under which the fluid was held in the spinal canal. The difficulties which stand in the way of accurate pressure measurements are sufficiently dwelt on, and more especially the influence of posture on pressure. Other difficulties relate to the classification of the cell elements found; and here Prof. Nissl finds much to be desired in the way of a standard nomenclature. In like manner the counting of the cells in the sediment after centrifugalising has not been hitherto performed in a wholly reliable way, and comparable results are correspondingly lacking. Dr. Nissl then describes his own technique, and upon this follow extensive clinical and experimental records, for which we must refer to the paper itself.

Surveying his results, Dr. Nissl concludes: 1. That the chemical and cytological examination of the cerebro-spinal fluid is a most valuable adjuvant in the diagnosis of general paralysis provided there is no other sufficient and likely cause for the richness in albumen and leucocytes which the fluid presents, such other sufficient causes being tabes,

syphilitic infection of the nervous system, tubercular and other forms of meningeal infection. In this matter he confirms the statements of E. Dupré. 2. That it is impossible to be too cautious in interpreting the significance of small augmentations in the number of the cells.

For an accurate realisation of the many doubts and hesitations which surround this whole subject we must again refer to the original.

In conclusion, Prof. Nissl criticises the lumbar puncture itself, and on the grounds of the results on healthy people he decides that the procedure is not an indifferent one, but of the nature of an operation which should not be undertaken without the consent of the patient or of his legal representatives if he is himself incapable of giving consent.

The symptoms, which *in health* follow the lumbar puncture, and the withdrawal of a few cubic centimetres of fluid, do not occur at once; in none of Prof. Nissl's cases until from five to twelve hours had elapsed. These same symptoms reminded the observer strongly of seasickness, the patients feeling very well so long as they were recumbent, but so soon as they got up, and often upon the least movement, complaining of headache, nausea, and vomiting. Some of the cases exhibited a peculiar apathy. At the height of these symptoms there was a complete incapacity for work. The symptoms continued from one to eight days. In some cases, besides the headache, there was complaint of pains in the back and in the neck. Exertion generally, and in particular bodily vibration, as caused by travelling by train or carriage, seemed deleterious—so much so that Prof. Nissl lays it down that the puncture must not be performed unless the patient can be at once put to bed.

Similar symptoms were observed *in the insane*. Thus, out of 112 cases of puncture, in 48 pronounced symptoms followed; in cases of general paralysis, however, these effects were not witnessed.

In one case a transitory collapse was observed on puncturing.

As to the quantity which should be withdrawn for diagnostic purposes, this should not exceed 5 c.c. according to Prof. Nissl.

A drawback in the case of a certain proportion of insane patients seems to be in the difficulty of performing the operation without an anæsthetic. In 212 cases of puncture of the insane a short ether narcosis was necessary in 62 cases.

HARRINGTON SAINSBURY.

The Surgery of Idiocy and Insanity. (Journ. of Nerv. and Ment. Dis., June, 1904.) Da Costa, J. C.

In considering this subject, the author first lays down certain facts as to the causation and cure of insanity as a basis for any conclusions which may be reached. He then proceeds to discuss the subject of surgical interference in the various forms of mental disease. In microcephalic idiocy he is of opinion that Lannelongue's operation is quite unjustifiable in uncomplicated cases, as it is not only useless but in some cases actually makes the idiot worse.

He believes that microcephalus is not the result of premature sutural ossification. A microcephalic brain is not a more or less normal brain of very small size, the idiocy resulting from the smallness of the parts present, but is always an abnormal and undeveloped, and in a great