investigation regarding etiology.

It is well known that in general the brain abscess originates from chronic otitis in many cases. However Arzeni pointed out that in the newborn under a year of age chronic otitis does not exist for the reason of the anatomical structure.

We could not find any heart disease in our two cases, though it is also stated by some authors that the abnormal cerebral circulation due to congenital heart disease promote the incidence of brain abscess. The cause and symptom of brain abscess are difficult to recognize, hence the diagnosis is difficult to make pre-operatively except in the typical case.

It is not rare that the brain abscess can be differentiated from hydrocephalus and brain tumor only through puncture and or craniotomy.

Dandy emphasize aspiration of pus by puncture to be sufficient for the treatment of brain abscess, whereas Vincent insists the necessity of total resection of the abscess after formation of capsule is complete. Since tentorial herniation due to the increase of intracranial pressure was demonstrated in one of our two cases, we believe that in the newborn aspiration of the abscess cavity should be performed as soon as the diagnosis is established.

33. Cerebral Abscess associated with Congenital Heart Disease

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During 12 yrs. from 1956, 18 cases of cerebral abscess associated with cyanotic congenital heart disease (3 yrs.—26 yrs. old) were confirmed by surgical procedure and autopsy. (approximately 1% frequency), 14 cases of them were Tetralogy of Fallot. This disease progresses rapidly and becomes critically ill, and expires before diagnosis could be made in 8 of the cases in the past. But for these 4 years, 10 cases of the above 18 cases were diagnosed by angiography, cerebro-spinal findings, blood counts, EEG and eye-ground examination. 9 cases were operated and 1 case with multiple abscess of the right hemisphere could not be operated.

$$18 \text{ cases} \left\{ \begin{array}{l} 8 \text{ cases} \dots \text{died before diagnosis} \\ 10 \text{ cases} \left\{ \begin{array}{l} 9 \text{ cases operated} \\ 1 \text{ case died after diagnosis} \end{array} \right. \end{array} \right.$$

The operation method of 9 cases are as follows

9 cases { 4 cases aspiration and repeated taps { 3 cases alive
 { 4 cases extracapsular removal { 1 case died
 { 1 case drainage } died

The cause of dead cases (operated)

Recurrence ————— 1 case

remaining abscess { perforated in the ventricle 2 case
 { + subdural bleeding 1 case

pulmonary complication ————— 2 case

The post-operative care become difficult by the facts of the cyanotic heart disease showed as follows

1. polycythemia → thrombus formation → low molecular Dextran transsion
2. hypoxia collateral vessels fibrinolysis → hemorrhagic tendency → fresh blood transfusion autiplasmin etc.
3. destruction of alveolar wall hypoplasia of pulmonary artery → atelectasis → controlled respiration

Also emergency operation during the exacerbated cases, by means of aspiration using repeated taps may save the patient. The occurrence of brain abscess in left aortic arch has predominance in right hemisphere and right aortic arch in left hemisphere.

34. Experimental Petit Mal in the Macaque Monkey

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35. Clinical Results of Forel-H-tomy for the Treatment of Epilepsy

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