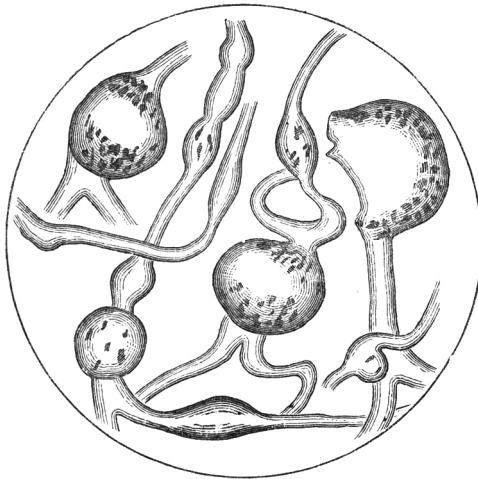


*To Illustrate Dr. Howden's Case of Senile Dementia.*



**MILIARY ANEURISMS IN THE PIA MATER.**

## CLINICAL NOTES AND CASES.

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*Case of Senile Dementia : Death from Coma ; Brain-shrinking ; Sanguineous Effusion into Arachnoid Sac, resulting from Rupture of Miliary Aneurisms in Pia Mater.* By JAMES C. HOWDEN, M.D.

The chief interest in this case was the presence of immense numbers of aneurisms in the minute vessels of the brain and pia mater, to the rupture of one or more of which the hæmorrhage into the sac of the arachnoid which was the cause of death was due. For full details as to the history and pathology of these miliary aneurisms, the reader is referred to the admirable memoir of "The Pathology of Cerebral Hæmorrhage," by MM. Bouchard and Charcot, translated by Dr. T. S. MacLagan, of Dundee.

J. N., æt. 74, admitted 10th August, 1874, a labourer, married, said to have been a sober and industrious man.

With gradual decline of bodily vigour, his intellect has become gradually impaired, and latterly he has been troublesome at home from profound stupidity, restlessness, and tendency to wander both by day and night.

On admission he seemed quite stupid and vacant, appeared to have no idea of his surroundings, could answer no questions nor speak coherently. His attempts to speak were marked by a stuttering hesitation. Both pupils were regular, and of equal size. Except a general feebleness there was no symptom of paralysis. Bodily functions seem otherwise normal.

Sept. 1st.—Has remained in the same state as on admission. He is filthy in his habits, his excreta passing apparently unconsciously to him. Unless he gets a draught, he never sleeps. Enter his room when you will at night or day he is lying wide awake. His feeding requires to be carefully attended to for fear of choking, but he eats with great avidity, and swallows with apparent ease.

Sept. 13th.—Is much more feeble, and contrary to his usual custom, refuses food.

Sept. 16th.—At 11.30 p.m. was found in a comatose condition.

Sept. 17th.—Died at 8.40 a.m.

*Sectio Cadaveris, 18th Sept., 2 p.m.*

*Body*, well nourished. Rigor mortis marked.

*Head*.—Calvarium normal. Dura mater thick and leathery. Pacchionian bodies unusually prominent, especially on left side. The

arachnoid surface of the membrane presented general rusty discoloration, most marked in the anterior fossæ. Marked general opacity of the arachnoid. In the middle and posterior fossæ on both sides there is a thin layer of semifluid blood. This clot is densest on the middle fossa on the right side. Corresponding with this, over the third or inferior temporo-sphenoidal convolution of the right cerebral hemisphere, there was a distinct dark clot attached to the arachnoid, which appeared ruptured at this point. There was a quantity of serous fluid in the form of bullæ in the meshes of the pia mater in the cerebral sulci. The membranes were easily removed from the surface of the brain. The vessels at the base and in the fissures of Sylvius were very atheromatous. The grey matter of the convolutions was soft and œdematous. The lateral ventricles were distended with fluid.

*Microscopic Examination of Brain.*

The brain-cells in all parts of the grey matter examined were clouded with fuscous granules, which almost always obscured the nucleus. The granules were observed in many instances to extend along the nerve fibre where it issued from the cell. From the irregular outline of the cells there was little room to doubt that the granular deposit was outside the cell wall. A large proportion of the cells had a shrunken and misshapen appearance. The outer layers of the grey matter of the convolutions contained numerous amyloid and hyaline bodies. The minute vessels in the grey matter were almost universally coated with granular matter.

On examining the pia mater in the vicinity of the clot, the minute vessels were found to present numerous twistings, and very well marked aneurismal dilatations. These miliary aneurisms, though most numerous near the clot, were found in all parts of the pia-mater, and frequently in the minute vessels penetrating the grey matter. The dilatations were of various extent, from a slight bulging, to a distinct round ball. In every instance their walls presented a granular aspect, specially marked at the points where the vessels entered, or issued from the dilatation. In many instances three, and in some cases four, vessels were seen opening into one aneurism which had formed at the point of branching. Some of the aneurisms were ruptured, but this may have been done during the examination (*see Plate*).

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*Fife and Kinross District Lunatic Asylum.—Clinical and Pathological Memoranda.* By G. HUNTER MACKENZIE, M.B., Assistant Medical Officer.

1. *Case of Brain Tumour, with Epileptiform Convulsions.*

J. J., a deaf and dumb female patient, was admitted into the Fife and Kinross Asylum in Sept., 1866, labouring under congenital imbecility. During her residence in the asylum, the chief mental phenomena consisted of fits of irritability of temper; these were at times