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BERRY ANEURYSM- A CASE REPORT

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ABSTRACT

Berry aneurysm is a saccular dilatation of a localized segment of an artery. The incidence of berry aneurysm is reported to be 2%. The most common site of berry aneurysm is the anterior cerebral artery. In the present study, a case of berry aneurysm is reported that is present along the junction of anterior cerebral and anterior communicating artery. This berry aneurysm was found during dissection of a cadaver in the department of Anatomy at Gian Sagar Medical College, Banur, Patiala. Berry aneurysm can remain asymptomatic but if ruptured, it can lead to sub-arachnoid hemorrhage and sudden death.

KEYWORDS: berry aneurysm, sub-arachnoid hemorrhage, sudden death.

INTRODUCTION

Dilatation of a localized segment of the arterial system is called an aneurysm. Morphologically, it can be saccular also known as Berry aneurysm, fusiform or dissecting. [1] Aneurysms occur most commonly at the junction of two arteries in the circle of Willis. Deficiency in the tunica media leads to weakness of the vessel wall resulting in its local dilatation. [2]

Incidence of berry aneurysm is 2% and the incidence of aneurysmal rupture is 6-12/100000 person years. The female: male ratio is 3:2 and the risk factors include atherosclerotic disease, family history and polycystic kidney disease. The size of berry aneurysm ranges from a few mm to cm. A berry aneurysm above 2.5 cm is called a giant aneurysm. [3] Aneurysms are thin walled and at risk for rupture. Rupture of aneurysms results in sub-arachnoid hemorrhage. Sub-arachnoid hemorrhage is characterized by sudden severe "thunderclap" headache, vomiting, neck stiffness, loss of consciousness, focal signs, epilepsy, coma and sudden death. In 95% cases CT scan of head is diagnostic. [4, 5]

CASE REPORT

A saccular/berry aneurysm was found at the base of the brain of a male cadaver, during routine dissection in the department of Anatomy at Gian Sagar Medical College, Banur, Patiala. This aneurysm was found at the junction of anterior cerebral artery and anterior communicating artery. This site of berry aneurysm is the commonest of all .The aneurysm was un-ruptured and measured 1.2 cm in its biggest diameter.

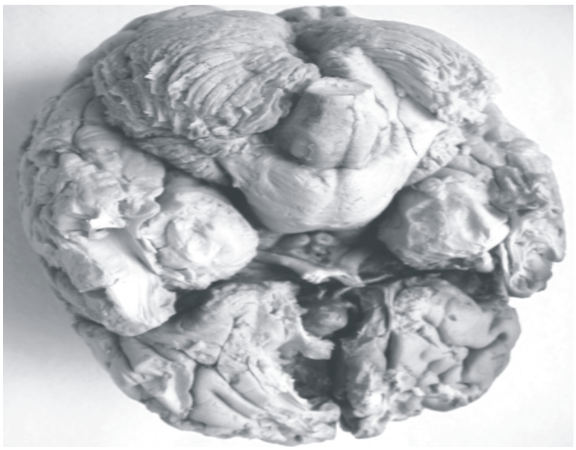

Fig 1 Berry Aneurysm at base of Brain

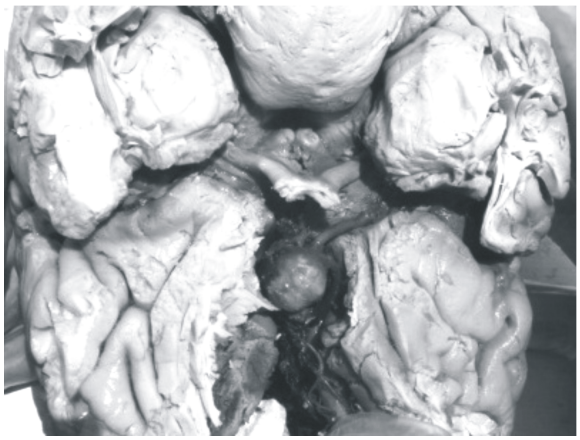

Fig 2 Berry Aneurysm at junction of Anterior Cerebral and Anterior Communicating Artery

DISCUSSION

An aneurysm is defined as an abnormally dilated segment of a blood vessel. Berry aneurysm is by far the commonest of all cerebral aneurysm. About 25% of cerebro-vascular deaths are due to ruptured berry aneurysm. Risk factors for berry aneurysm include chronic hypertension, smoking, female gender and African- American ethnicity. [6] Intracranial berry aneurysms are extremely rare in infancy. However a case of death due to a ruptured berry aneurysm has been reported in a 3.5 year old child. [7,8] In 25% of persons older than 55years, the berry aneurysms are silent.[9] Berry aneurysm can rupture at any time, during exertion or at rest. Rupture of berry aneurysm leads to sudden death due to sub-arachnoid hemorrhage. [10]

The incidence of SAH is 6-8/100000 person years, peaking in the sixth decade. Ruptured berry aneurysm accounts for a quarter of cerebrovascular deaths.[11]A retrospective autopsy survey of 583 cases of ruptured berry aneurysm revealed that most deaths occurred in home environment, without any precipitating factor and one fifth was sudden and unexpected in nature.[12]

CONCLUSION

Berry aneurysm occurring in 2% of population may remain silent or may rupture. If it ruptures, it leads to sub-arachnoid hemorrhage. The sub-arachnoid hemorrhage can lead to sudden death.

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