Pineal cyst epidemiology

Usually, an incidental finding (i.e., not symptomatic), (many are microscopic). The most common ones are intra-pineal glial-lined cysts with a diameter of < 1 cm.

Although the prevalence of pineal cysts in autopsy series has been reported as being between 25% and 40%, MR studies have documented their frequency to range between 1.5% and 10.8%.

Pineal cysts are common in the pediatric population, with an increased prevalence in girls and in older patients [1].

The purpose of a high-resolution brain MR imaging study at 1.9T was to determine the prevalence of pineal cysts in healthy adults.

Brain MR images of 100 healthy young volunteers were randomly selected from our International Consortium for Brain Mapping project data base. Cysts were detected as circular areas of iso intensity relative to CSF on both 3D gradient-echo T1-weighted and 2D fast spin-echo T2-weighted images. The inner diameters of all visualized pineal cysts were measured, and a criterion of 2.0 mm of the largest inner cross-sectional diameter was used to categorize cysts as being either small cystic changes (<2.0-mm diameter) or pineal cysts (>2.0-mm diameter).

Twenty-three percent (23/100) of the volunteers had pineal cysts with a mean largest inner cross-sectional diameter of 4.3 mm (range, 2-14 mm); 13% (13/100) demonstrated cystic changes involving the pineal gland with the largest inner cross-sectional diameter of less than 2.0 mm. There was a slight female predominance. Two subjects with long-term follow-up scans showed no symptoms or changes in the size of their pineal cysts.

On high-resolution MR imaging, the prevalence of pineal cysts was 23% in a healthy group of adults, which is consistent with previous autopsy studies. Long-term follow-up studies of 2 cases demonstrated the stability of the cysts [2].

There is a prevalence rate of co-existing Rathke's Cleft Cysts and Pineal Cysts [3].

References

1)
Al-Holou WN, Garton HJ, Muraszko KM, Ibrahim M, Maher CO. Prevalence of pineal cysts in children and young adults. Clinical article. J Neurosurg Pediatr. 2009 Sep;4(3):230-6. doi: 10.3171/2009.4.PEDS0951. PMID: 19772406.
2)
Pu Y, Mahankali S, Hou J, Li J, Lancaster JL, Gao JH, Appelbaum DE, Fox PT. High prevalence of pineal cysts in healthy adults demonstrated by high-resolution, noncontrast brain MR imaging. AJNR Am J Neuroradiol. 2007 Oct;28(9):1706-9. doi: 10.3174/ajnr.A0656. Epub 2007 Sep 20. PMID: 17885233.

3)
Mendoza J, Strickland BA, Micko A, Brunswick A, Wolfsberger S, Zada G. Prevalence rate of co-existing Rathke's Cleft Cysts and Pineal Cysts: a multicenter cross-sectional study. World Neurosurg. 2021 Feb 7:S1878-8750(21)00185-6. doi: 10.1016/j.wneu.2021.02.004. Epub ahead of print. PMID: 33567367.

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