

Persistent craniopharyngeal canal

Canal craniofaríngeo persistente

Bernardo Carvalho Muniz¹, Priscilla Havi Fonseca², Bruno Niemeyer de Freitas Ribeiro^{1,3}, Emerson Leandro Gasparetto⁴, Edson Marchiori⁵

A two-year-old male, with delayed neuropsychomotor development underwent computed tomography and magnetic resonance imaging (Figure). The diagnosis was persistent craniopharyngeal canal.

Persistent craniopharyngeal canal is a rare congenital anomaly of the skull base and is defined as a well-corticated osseous canal, extending from the roof of the nasopharynx

to the base of the sella, over the sphenoid corpus, allowing the pituitary gland to present as a nasopharyngeal mass. Its origin may represent the remnant of the route of Rathke's pouch¹. Computed tomography and magnetic resonance imaging evaluate the content and limits of the canal well, preventing surgical iatrogenesis, such as hypopituitarism and cerebrospinal fluid leakage².

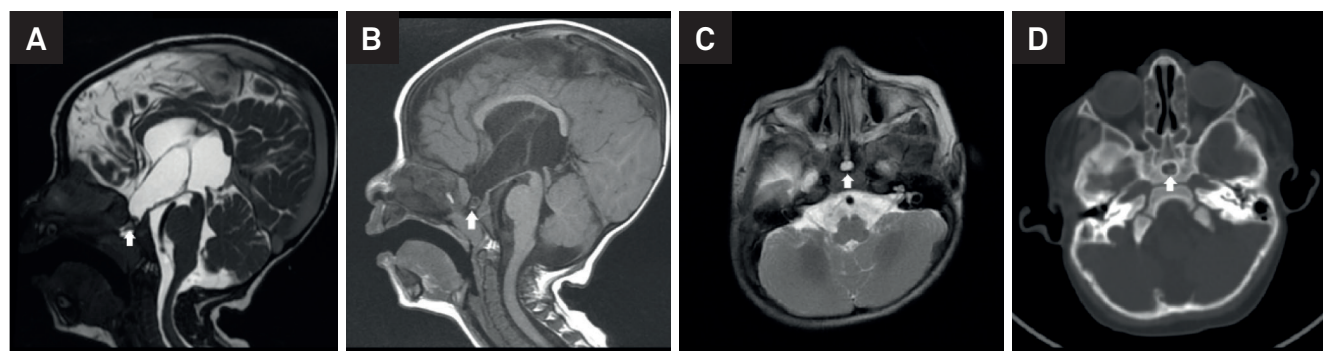


Figure. A: Magnetic resonance, constructive interference in steady state 3D sequence, sagittal plane; B: Magnetic resonance, T1, sagittal plane; C: Magnetic resonance, T2, axial plane; D: Computed tomography, bone window, axial plane. The persistence of the craniopharyngeal canal (arrows in C and D), and the pituitary remnant inside (arrows in A and B). Note that the remnant of the pituitary gland is lower than usual in the nasopharyngeal roof.

References

1. Akyel NG, Alımlı AG, Demirkan TH, Sivri M. Persistent craniopharyngeal canal, bilateral microphthalmia with colobomatous cysts, ectopic adenohypophysis with Rathke cleft cyst, and ectopic neurohypophysis: case report and review of the literature. *Childs Nerv Syst.* 2018 Jul;34(7):1407-10. <https://doi.org/10.1007/s00381-018-3747-4>
2. Mohindra S, Gupta K, Mohindra S. A novel minimally invasive endoscopic repair in a case of spontaneous CSF rhinorrhea with persistent craniopharyngeal canal. *NeuroIndia.* 2015;63(3):434-6. <https://doi.org/10.4103/0028-3886.158243>

¹Instituto Estadual do Cérebro Paulo Niemeyer, Departamento de Radiologia e Diagnóstico por Imagem, Rio de Janeiro RJ, Brasil;

²Hospital Federal Cardoso Fontes, Departamento de Radiologia, Rio de Janeiro RJ, Brasil;

³Clínica 3D Diagnose, Serviço de Radiologia, Rio de Janeiro RJ, Brasil;

⁴Universidade Federal do Rio de Janeiro, Rio de Janeiro RJ, Brasil;

⁵Universidade Federal do Rio de Janeiro, Departamento de Radiologia, Rio de Janeiro RJ, Brasil.

Correspondence: Bernardo Carvalho Muniz; Instituto Estadual do Cérebro Paulo Niemeyer; Rua do Rezende, 156; 20550-220 Rio de Janeiro RJ, Brasil; E-mail: bernardocmuniz@yahoo.com.br

Conflict of interest: There is no conflict of interest to declare.

Received 16 April 2018; Received in final form 30 July 2018; Accepted 08 August 2018.