Covered-stent treatment of an extracranial internal carotid artery pseudoaneurysm in a 3 years-old child with 12-years follow-up. Case report

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Abstract (300 word limit)

Introduction: Extracranial internal carotid artery (ICA) pseudoaneurysms in children, although uncommon, are life-threatening. Covered stents are a good alternative treatment, as they avoid the risk of open surgery and preserve the internal carotid artery. Longterm outcomes were unknown until recently.

Report: In August 2008, a 3-years-old child was treated with a covered stent for a pseudoaneurysm in the extracranial ICA. A long-term follow up is presented.

Results: The child was discharged with full recovery and without neurological sequelae. He has been followed-up and has remained asymptomatic for 12 years, with CTA confirmed internal carotid artery patency, without deformation or evidence of significant restenosis.

Conclusion: This the first report of the long-term outcome of a covered stent in a child treated at 3 years of age, with a 12-year follow-up. The good performance of the covered stent in this case reinforces its adoption as a first-line option in the treatment of extracranial ICA pseudoaneurysms in children.

Recent Publications (minimum 5)

1 Tannuri U, Mendes de Almeida N, Piske R, Matsumoto T. Giant pseudo-aneurysm of the internal carotid artery causing upper airway obstruction in a 10-month-old infant treated with endovascular occlusion and surgical drainage. J Pediatr Surg 2003;38:1393e5.

2 Farhatnia Y, Tan A, Motiwala A, Cousins B, Seifalian AM. Evolution of covered stents in the contemporary era: clinical application, materials and manufacturing strategies using nanotechnology. Biotech Adv 2013;31:524e42.

3 Shin DS, Carroll CP, Elghareeb M, Hoh BL, Kim BT. The evolution of flow-diverting stents for cerebral aneurysms: historical review, modern application, complications and future direction. J Korean Neurosurg Soc 2020;63:137e52.

4 Pinzon M, Lobelo NO, Rodríguez MC, Villamor P, Otoya AM. Endovascular management of iatrogenic cervical internal carotid artery pseudoaneurysm in a 9-year-old child. Int J Pediatr Otorhinolaryngol 2017;95:29e33.

5 Balasundaram P, Sebastian LJD, Jain N, Prabhakar A, Garg A, Gaikwad S. Management of arterial pseudoaneurysm of the neck in a pediatric population: an endovascular case series and review of literature. World Neurosurg 2019;125:273e81.

Photograph



Biography:

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