INTERVENTIONAL TREATMENT OF A GIANT CAROTID ARTERY ANEURYSM WITH A SINUS DS DUCTUS STENT IN A TWO YEARS OLD CHILD - IS FUTURE STENT CRACKING AN OPTION?

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HISTORY AND PHYSICAL

We report a two years old child who suffered from a giant iatrogenic carotid artery aneurysm after exstirpation of cervical lymph nodes. The patient presented with ptosis and a large palpable and pulsating swelling in the left submandibular region.

IMAGING

CT-scans confirmed the carotid aneurysm diagnosed intraoperatively (Abb. 1a/b).





Abb. 1a Abb. 1b

INDICATION FOR INTERVENTION

After broad discussion of all treatment options an interventional stenting of the carotid artery was found to be the most suitable option to preserve the carotid artery.

INTERVENTION

In a bench test an OptiMed Sinus DS Ductus stent (8x12 mm) was inflated with high pressure balloons in ascending sizes. Final inflation up to 30 atm (rated burst pressure) with a Conquest balloon (8 mm) cracked the stent. With the option of a later balloon dilation and possible cracking of the stent after occlusion of the aneurysm, the child went to cath lab. Stenting was possible without complications and perfusion of the aneurysm stopped immediately. During follow-up a regression of the submandibular swelling was noted and Doppler sonography revealed an unobstructed flow within the stented carotid artery. Control angiography is planned for further evaluation and possible first balloon dilation.

LEARNING POINTS OF THE PROCEDURE

The newly available ultra-high pressure balloons push the boundaries of currently possible therapeutic options for stenting of smaller vessel diameters in young children and open up new treatment perspectives.