Dorsal variant blister aneurysm repair

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Dorsal variant proximal carotid blister aneurysms are treacherous lesions to manage. It is important to recognize this variant on preoperative angiographic imaging, in anticipation of surgical strategies for their treatment. Strategies include trapping the involved segment and revascularization if necessary. Other options include repair of the aneurysm rupture site directly. Given that these are not true berry aneurysms, repair of the rupture site involves wrapping or clip-grafting techniques. The case presented here was a young woman with a subarachnoid hemorrhage from a ruptured dorsal variant blister aneurysm. The technique used is demonstrated in the video and is a modified clip-wrap technique using woven polyester graft material. The patient was given aspirin preoperatively as preparation for the clip-wrap technique.

It is the authors’ current protocol to attempt a direct repair with clip-wrapping and leaving artery sacrifice with or without bypass as a salvage therapy if direct repair is not possible. Assessment of vessel patency after repair is performed by intraoperative Doppler and indocyanine green angiography. Intraoperative somatosensory and motor evoked potential monitoring is performed in all cases.

The video can be found here: http://youtu.be/crUreWGQdGo.
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KEY WORDS • dorsal variant blister • aneurysm • carotid blister • clip-graft technique • clip-wrap technique • subarachnoid hemorrhage • video