

Introduction

Pipeline Embolization Flow diversion has been shown to be a safe and effective method to treat unruptured anterior circulation aneurysms with morphology that is not conducive to conventional endovascular treatments. The purpose of this study is to evaluate the safety and feasibility of using a Pipeline Embolization Device (PED) to treat dissecting posterior circulation aneurysms with or without acute subarachnoid hemorrhage.

Methods

Retrospective case series of 4 patients (3 men, 1 woman; mean age 55) who present with posterior circulation dissecting cerebral aneurysms, not amenable to conventional treatment, who underwent treatment with PED. All received dual antiplatelet load followed by daily dosing and monitoring of serum levels. Of note, on admission 3 patients tested positive for methamphetamine use.

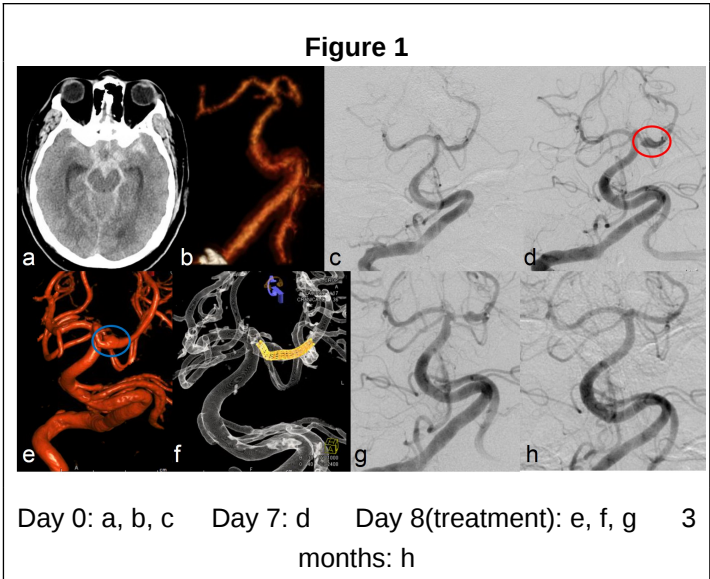
Results

PED deployment was successful in all 4 cases. Angiographic aneurysm occlusion and patency of parent vessel was noted on follow up angiography in 3 cases. The other patient still has ongoing filling at 3 month follow-up with clinic improvement in symptoms. No perioperative stroke, aneurysm re-rupture or worsening hemorrhage occurred. One patient was noted to have migration of the PED device on follow up without any associated morbidity or aneurysm recanalization.

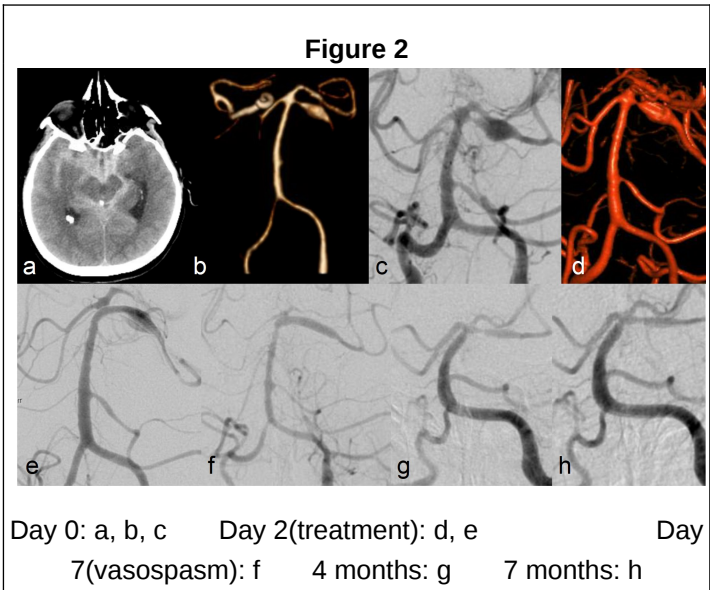
Conclusions

PED is a feasible method of treatment for dissecting posterior circulation aneurysms, including post subarachnoid hemorrhage, when other treatment options are limited. While the requirement for dual antiplatelet therapy has risks following subarachnoid hemorrhage, in our experience, no incidents of stroke, rebleeding or rerupture occurred.

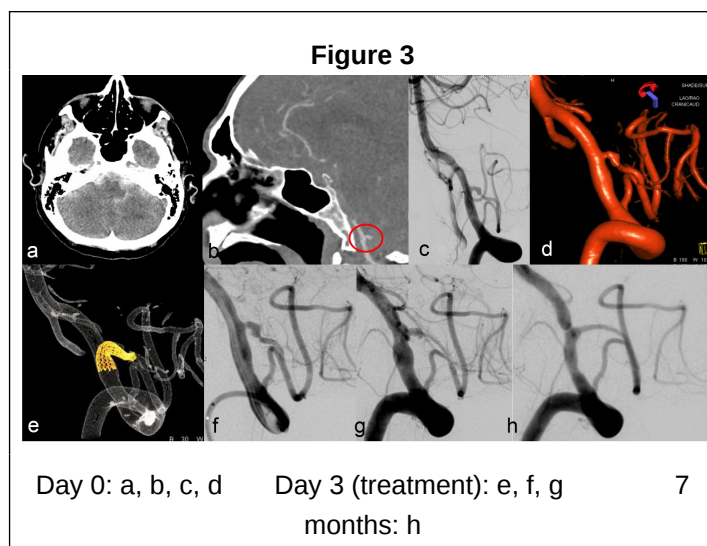
CASE 1: 37 YO man with SAH H/H 2, FG 3 with Left PCA aneurysm.



Case 2: 57 YO female with SAH H/H 4, FG 4 Left SCA aneurysm



CASE 3: 64 YO man with SAH H/H 3, FG 4 with Left PICA



CASE 4: 62 YO man Right SCA stroke with large right SCA aneurysm

