tracts, and an increase of 0.17 km [0.10, 0.23] in urban tracts.

Conclusions Disparities in proximity to stroke care were worse in non-urban areas than in urban areas. Non-urban census tracts with greater representation of elderly, American Indian, or uninsured persons, or low median income, were substantially more distant from certified stroke care. Quantifying disparities in proximity to timely stroke care can inform ongoing efforts for infrastructure improvements that reduce inequalities in access to care.

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P-039 FLOW DIVERTERS FOR TREATMENT OF ICA LOOP DISSECTIONS OR ICA DISSECTIONS WITH ASSOCIATED PSEUDOANEURYSM

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Purpose Cervical internal carotid artery (ICA) loop dissections or dissections with associated pseudoaneurysm can pose a treatment challenge. Flow diverters are able to reconstruct vessel loops, treat the injured vessel and exclude an associated pseudoaneurysm from the parent artery.

Material and Methods We retrospectively reviewed our prospectively maintained Neuro IR database and identified all patients with ICA dissections primarily treated with flow diverters between July 2017 and September 2020. Patient demographics, procedural data, imaging follow up results and clinical outcome information was also collected.

Results A total of 11 patients were identified (9 males) with a mean age of 59.2 years (range 43 - 85 years). The patients had 7 ICA loop dissections with associated pseudoaneurysm

in 2 cases, 3 focal ICA dissections with associated pseudoaneurysm and one long segment ICA dissection with associated pseudoaneurysm. Six lesions were treated with the Surpass Streamline flow diverter and 5 with the Pipeline Embolization device. A single flow diverter was placed in 4 cases, two flow diverters were placed in 1 case, combination of flow diverters and (carotid) stents were placed in the remaining cases and are listed in table 1. Two patients were lost to follow up and another 2 have not reached their follow-up time point yet. Two patients died, one as a result from his stroke burden with which he initially presented and one patient due to a large intraparenchymal hematoma in the setting of dual antiplatelet therapy. Three to 6-month angiogram follow up is available in 4 patients which showed near complete pseudoaneurysm occlusion in 2 cases and complete occlusion in the other 2 cases (figure 1); all cases

Abstract P-039 Figure 1

Abstract P-039 Table 1

Patient	Laterality	Presentation	Dissection	FD and Size(s)	Stent(s)	Follow up time	Follow up result	Last known mRS
1	Right	Stroke	Loop dissection	Surpass 5x40, 5x30	Wallstent 8x36	Lost to follow up	-	2
2	Left	Stroke	Loop dissection	Surpass 5x40	Wallstent 8x36	-	-	6
3	Right	Stroke	Loop dissection	Surpass 5x40, 5x40	Wallstent 8x36	Not reached	-	0
4	Left	Stroke	Loop dissection	Surpass 5x50, 5x40	-	Lost to follow up	-	0
5	Left	Stroke	Loop dissection with pseudoaneurysm	Surpass 4x50	-	Not reached	-	2
6	Left	Stroke	Focal dissection with pseudoaneurysm	Surpass 5x30	-	6 months	No residual, patent device	3
7	Right	Stroke	Focal dissection with pseudoaneurysm	Pipeline 4.75x25	-	-	-	6
8	Right	Neck pain	Focal dissection with pseudoaneurysm	Pipeline 5x16, 4.75x18, 4.75x18, 4.75x16	Acculink 6x20	6 months	Near complete, patent devices	0
9	Right	Headache	Long segment dissection with pseudoaneurysm	Pipeline 5x35, 5x33	Precise 5x20	6 months and 20 months	Complete occlusion, patent devices	0
10	Right	Stroke	Loop dissection	Pipeline 4x25	Neuroform EZ Enterprise	3 months	Near complete, patent devices	0
11	Left	Stroke	Loop dissection with pseudoaneurysm	Pipeline 5x35	-	12 months	Complete occlusion, patent devices	3

showed patent flow diverter(s) with or without stent(s). One patient had a 1 year follow up only which showed complete occlusion of the pseudoaneurysm with a patent flow diverter. No significant in-device stenosis was identified in any follow-up case.

Conclusion Use of flow diverters, in some cases in conjunction with (carotid) stents, is an effective treatment option for cervical carotid artery dissections, especially loop dissections with or without associated pseudo aneurysms.

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P-040

MAJOR COMPLICATIONS OF DURAL VENOUS SINUS STENTING FOR IDIOPATHIC INTRACRANIAL HYPERTENSION: CASE SERIES AND MANAGEMENT CONSIDERATIONS

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Introduction Venous sinus stenting (VSS) is a safe, effective, and increasingly popular treatment option for selected patients with idiopathic intracranial hypertension (IIH). Serious complications associated with VSS are rarely reported.

Methods Serious complications after VSS were identified retrospectively from multicenter databases. The cases are presented and management strategies are discussed.

Cases Six major acute and chronic complications after VSS were selected from a total of 811 VSS procedures and 1466 venograms for IIH. These included an acute subdural hematoma from venous extravasation, cases of both intraprocedural and delayed stent thrombosis, an ultimately fatal cerebellar hemorrhage resulting in acute obstructive hydrocephalus, venous microcatheter perforation during venography and manometry, and a patient who developed SAH and SDH after cerebellar cortical vein perforation. The 6 cases are reviewed and learning points regarding complication avoidance and management are presented.

Conclusion We report on 6 rare, major complications after VSS for IIH. Familiarity with these potential complications and appropriate timely management may allow for good clinical outcomes.

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P-041

CHRONIC HEADACHES AND MIDDLE MENINGEAL ARTERY EMBOLIZATION

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Background The middle meningeal artery (MMA) has been implicated in chronic headaches, but no studies have examined the relationship between MMA embolization and headaches.

Methods Patients treated with MMA embolization for a chronic subdural hematoma (cSDH) (1/1/2018-12/31/2020) were retrospectively assessed. Patients with a Glasgow Coma Scale (GCS) score of 15 on discharge received a follow-up phone call to assess their history of chronic headache, defined as a headache ≥ 2 years before the cSDH and symptoms ≥ 2 days/month. A Headache Impact Test (HIT-6) was performed during the follow-up phone call. The primary outcome was resolution or improvement of headaches after embolization.

Results Of 76 patients undergoing MMA embolization for a cSDH during the study period, 56 (74%) had a discharge GCS of 15. Of these 56 patients, 46 (82%) responded to a follow-up phone call and were analyzed (mean (SD) age, 68 (11) years; 36 (78%) men and 10 (22%) women). Nine

Abstract P-041 Figure 1 (A) Axial computed tomogram (CT) of the head showing bilateral chronic subdural hematomas (cSDHs). (B-D) Cerebral angiography images showing bilateral middle meningeal artery embolization with Onyx (views: B, un-subtracted posteroanterior; C, right lateral, D, left lateral). (E) Axial head CT at 30-day follow-up shows significant improvement of bilateral cSDHs. Used with permission from barrow neurological institute, Phoenix, Arizona