Treatment of RCC is dependent on the patient's symptoms. In asymptomatic patients, serial imaging is recommended [5]. Patients presenting solely with headache can also be treated conservatively. Those with poorly controlled headaches, visual disturbances, endocrine dysfunction, or other symptoms are treated surgically via a transsphenoidal approach to drain the cyst contents and remove the lining [4,5,8]. Patients with preoperative hypopituitarism or diabetes insipidus rarely improve with surgery [3,4,8]. However, those with visual disturbances improve in 92–98% of reported cases and headaches improve in 85–98% [2,3,9].

Recurrence rates for RCC range from 5–33% with an average time of recurrence of 14 months and most occurring within 5 years [2,3,5,6]. Factors related to increased recurrence risk include the use of grafts for closure, the surgical approach, and squamous metaplasia of the cyst wall, inflammation, and cyst size [3–6,9]. Spontaneous regression of RCC is uncommon. The mechanism of the spontaneous involution is unknown but could be due to imbalances in secretion and absorption of the cystic fluid or cyst rupture [5,7,10]. Here we present an unusual case of RCC previously resected twice with a third recurrence which subsequently underwent spontaneous regression.

4. Conclusion

RCC are lesions typically treated conservatively but may require surgical intervention when symptomatic. Recurrence is not uncommon but there is increasing literature to support spontaneous regression.

Conflicts of Interest/Disclosures

The authors declare that they have no financial or other conflicts of interest in relation to this research and its publication.

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Subarachnoid hemorrhage from dissecting aneurysm of the posterior communicating artery

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ABSTRACT

A 36-year-old woman on chronic hemodialysis presented with sudden onset of headache and deterioration of consciousness. She was sent to our hospital on day 1, with subarachnoid hemorrhage. Cerebral angiography showed pearl and string sign on the left posterior communicating artery, which was consistent with a diagnosis of hemorrhage from a dissecting aneurysm of the left posterior communicating artery. She underwent parent artery occlusion via endovascular treatment on day 2. Although cone beam computed tomography before embolization showed a perforator from the lesion, there were no ischemic lesions on diffusion-weighted imaging after the procedure. She was discharged without any neurological deficits. It is important to recognize that dissecting aneurysm of the posterior communicating artery is one cause of subarachnoid hemorrhage. We also discuss the utility of cone beam computed tomography in formulating the treatment plan for such patients.

1. Introduction

There are many reports of dissecting aneurysms of the cerebral arteries. Many focus on dissecting aneurysms of the vertebral arteries [1]. This report presents a patient with subarachnoid hemorrhage (SAH) from a dissecting aneurysm of the posterior communicating artery (PCoA).

2. Case presentation

Written informed consent was obtained from the patient for images and publication.

A 36-year-old woman on chronic hemodialysis due to IgA nephropathy experienced sudden onset of headache but did not seek medical care. The next day, she had recurrence of severe headache, developed deterioration of consciousness, and was sent to our hospital (day 1). CT scan revealed SAH (Fig. 1A). The World Federation of Neurological Surgeons grade was 5. CT angiography

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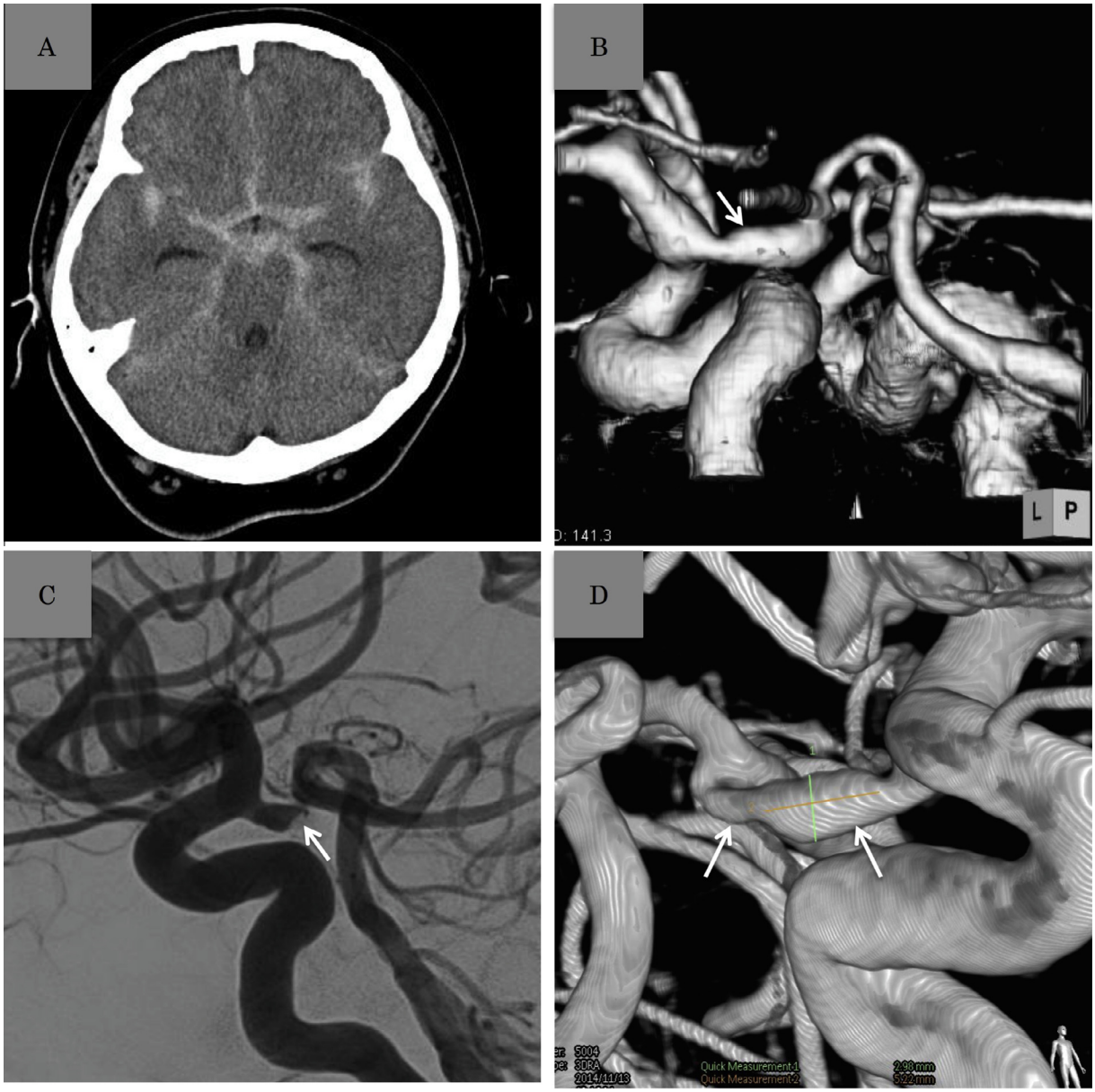

Fig. 1. (A) Axial CT scan on admission reveals subarachnoid hemorrhage. (B) CT angiography (postero-lateral view) shows the dilation of the left posterior communicating artery (PCoA) (arrow). (C) Left internal carotid artery injection digital subtraction angiography (lateral view) shows pearl and string sign on the PCoA (arrow). (D) Three-dimensional rotational angiography of the left internal carotid artery (view from the bottom right) shows pearl and string sign on the PCoA (arrow).

showed no saccular aneurysms but did show marked dilation of the PCoA (Fig. 1B). Subsequent cerebral angiography also showed the pearl and string sign (Fig. 1C, D), consistent with a diagnosis of SAH from a dissecting aneurysm of the PCoA. Cone beam computed tomography (CBCT) with iodinated contrast medium diluted to a concentration of approximately 33% showed the premamillary artery arising from the dissecting lesion (Fig. 2A) and the perforators from the first segment of the left posterior cerebral artery (PCA) (Fig. 2B). She had an episode of rebleeding from the dissecting aneurysm before being sent to our hospital, which suggested that surgical treatment was necessary despite the risk of ischemic complications.

On day 2, parent artery occlusion (PAO) via endovascular treatment was performed to prevent rebleeding. First, we attempted to approach the left PCoA through the left internal carotid artery, but the microcatheter was unstable. Then, another microcatheter was navigated through the left vertebral artery, and the coils were placed successfully. During the procedure, superselective angiography of the left PCoA showed extravasation (Fig. 3A), which suggested that the dissecting aneurysm arose from the left PCoA. Subsequent angiography revealed complete obliteration of the left PCoA (Fig. 3B).

Diffusion-weighted imaging performed 4 days after the procedure showed no ischemic lesions (Fig. 3C). The patient was discharged from our hospital on day 17 without neurological deficit. The patient has not experienced rebleeding in the 1-year period after treatment.

3. Discussion

Dissecting aneurysms of the PCoA are so rare that only seven cases (two case reports and one case series) have been published,