

necessity remains an enigma¹⁷⁾ although the merits of this method were considered as prevention of distal embolism and reduction of subarachnoid bleeding at the time of intraprocedural rupture.¹⁸⁾ In group Pi, however, the territory of PICA was forced to be fed by retrograde blood flow via contralateral VA, which should run through coil mass when proximal flow control was performed.¹⁹⁾ The anxiety for thromboembolism in PICA territory might be the major reason for the smallest number of cases with this method in group Pi.

Stent-assisted coiling and stent monotherapy including the use of flow diverters are becoming an alternative method of NET for this disease and the initial results seem feasible.^{20–22)} Stent was used only in seven cases in JR-NET1, and unfortunately the use of stent was not in the collected datasets in JR-NET2. The number of stents use in ruptured VADA was considered to be small as stents designed for intracranial use were not available in Japan during the study period. A prospective, multi-centered study on the efficacy and safety of stenting along with antithrombotic therapy is strongly awaited.

This study has several limitations. This study was retrospective, and data were missing in some patients. The clinical evaluation during the study period and angiographic examinations were not evaluated by physicians who were blinded to the therapy. Furthermore, lack in unity in the datasets among two studies may have dimmed the influence of procedural/medical factors for favorable outcome. If all the datasets in JR-NET1 were collected in JR-NET2, influence of age, PICA-involved lesion, postprocedural antithrombotic therapy upon favorable outcome could be clarified for the better guidelines for NET and periprocedural management in ruptured VADA. Also, the determinants of favorable outcome after NET in poor grade patients might be presented.

Nevertheless, this study provides important information as to the current status of NET in Japan, especially the correlations among patients' status at onset, procedural results, and clinical outcomes.

Conclusion

Ruptured VADA treated by NET, mainly by proximal occlusion and internal trapping, resulted in high technical success rate up to 98.7%, and approximately 50% to 60% of the patients had a favorable outcome at 30 days after onset. Poor WFNS grade and intraprocedural complication were detected as negative factors for favorable outcomes. The results of this study may be used as baseline data for validation of future NET including the novel devices in Japan.

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Conflicts of Interest Disclosure

The authors declare that there are no conflicts of interest.

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