·手术视频·

系列视频5

局部麻醉下应用Pipeline血流导向装置辅助弹簧圈栓塞治疗右侧椎动脉-基底动脉交界区复发性夹层动脉瘤1例

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【摘要】 自发性颅内椎基底动脉夹层动脉瘤是中青年人蛛网膜下腔出血和后循环缺血性卒中的重要原因。本研究报道了一例63岁男性右侧椎动脉-基底动脉交界区复发夹层动脉瘤病例。成功在局部麻醉下行Pipeline血流导向装置辅助弹簧圈栓塞治疗。术中通过实时医患沟通确认患者状态，术后未出现神经功能缺损等并发症。本案例证实，对于椎动脉-基底动脉交界区复发性夹层动脉瘤，局部麻醉下应用Pipeline血流导向装置辅助弹簧圈栓塞治疗具有临床可行性。该治疗方案不仅避免了全身麻醉风险，还能实现术中实时神经功能监测，为这类复杂病例的个体化治疗提供了新的临床思路。

【关键词】 颅内动脉瘤，Pipeline血流导向装置，局部麻醉

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Pipeline flow diverter-assisted coil embolization for the treatment of recurrent vertebrobasilar junction dissecting aneurysm under local anesthesia: a case report

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【Abstract】 Spontaneous vertebrobasilar artery dissecting aneurysms are a significant cause of subarachnoid hemorrhage and posterior circulation ischemic strokes in young to middle-aged individuals. This paper reports a case of a recurrent vertebrobasilar junction dissecting aneurysm in a 63-year-old male patient. The patient successfully underwent Pipeline flow diverter-assisted coil embolization under local anesthesia. During the procedure, real-time communication with the patient confirmed his condition, and no neurological deficits or other complications were observed postoperatively. This case demonstrates the clinical feasibility of using Pipeline flow diverter-assisted coil embolization for the treatment of recurrent vertebrobasilar junction dissecting aneurysms under local anesthesia. This approach not only avoids the risks associated with general anesthesia but also allows for intraoperative real-time neurological monitoring, providing a novel clinical strategy for the individualized management of such complex cases.

【Keywords】 Intracranial aneurysm; Pipeline embolization device; Local anesthesia

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自发性颅内椎基底动脉夹层动脉瘤是中青年人蛛网膜下腔出血和后循环缺血性卒中的重要原因[1]。本研究报道了一例 63 岁男性右侧椎动脉–基底动脉交界区复发夹层动脉瘤病例。该患者既往有蛛网膜下腔出血病史，曾接受LEO支架辅助弹簧圈栓塞治疗基底动脉起始部偏心型动脉瘤，术后恢复良好。然而术后 7 个月随访造影显示，原部位动脉瘤明显复发。经多学科团队讨论，决定在局部麻醉下行Pipeline血流导向装置辅助弹簧圈栓塞治疗。术前造影显示动脉瘤呈长节段梭形扩张（25.86 mm × 15.43 mm）。手术采用Synchro–14 微导丝引导Phenom–27 支架微导管，成功穿越既往置入的LEO支架，依次释放Pipeline血流导向装置（4.75 mm × 35 mm，4.75 mm × 20 mm和5.0 mm × 35 mm各一枚），随后经预置于瘤样扩张内的Echelon–10 微导管陆续填入 5 枚弹簧圈。术中通过实时医患沟通确认患者状态，除支架释放时轻微头胀外，患者无其他不适主诉，术后未出现神经功能缺损等并发症。

本案例证实，对于椎动脉–基底动脉交界区复发性夹层动脉瘤，局部麻醉下应用Pipeline血流导向装置辅助弹簧圈栓塞治疗具有临床可行性。该治疗方案不仅避免了全身麻醉风险，还能实现术中实时神经功能监测，为这类复杂病例的个体化治疗提供了新的临床思路。

Spontaneous vertebrobasilar artery dissecting aneurysms are a major cause of subarachnoid hemorrhage and posterior circulation ischemic stroke in young to middle–aged individuals.1 This study reports a case of recurrent vertebrobasilar junction dissecting aneurysm in a 63–year–old male patient. The patient had a history of subarachnoid hemorrhage and had previously undergone LEO stent–assisted coil embolization for an eccentric aneurysm at the origin of the basilar artery, with good postoperative recovery. However, follow–up angiography 7 months after the procedure revealed significant recurrence of the original aneurysm. After discussion by the multidisciplinary team, it was decided to perform pipeline flow diverter–assisted coil embolization under local anesthesia. Preoperative angiography revealed a long segment fusiform aneurysm (25.86 mm × 15.43 mm). The procedure was performed using a Synchro–14 microwire to guide a Phenom–27 stent microcatheter, successfully crossing the previously placed LEO stent, followed by sequential deployment of three pipeline flow diverters (4.75 mm × 35 mm, 4.75 mm × 20 mm, and 5.0 mm × 35 mm). Subsequently, five coils were placed via an Echelon–10 microcatheter pre–positioned in the aneurysm. During the procedure, real–time communication with the patient confirmed stable condition, and only mild head fullness was reported during stent deployment. No other discomfort was noted, and no neurological deficits or other complications occurred postoperatively.

This case demonstrates the feasibility of using pipeline flow diverter–assisted coil embolization under local anesthesia for the treatment of recurrent vertebrobasilar junction dissecting aneurysms. This treatment approach not only avoids the risks of general anesthesia but also allows for real–time intraoperative neurological monitoring, providing a novel clinical strategy for the individualized treatment of complex cases.

利益冲突 所有作者均声明不存在利益冲突

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