

论著

三维CT血管造影联合神经内镜辅助显微手术治疗颅内动脉瘤

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摘要:

目的: 探讨三维CT血管造影(3D CTA)模拟手术联合神经内镜在颅内动脉瘤外科手术中的应用价值。方法: 选择经手术证实的颅内动脉瘤38例, 术前均行3D CTA检查并进行动脉瘤手术模拟, 确定动脉瘤位置及其与载瘤动脉的关系, 术中手术显微镜下夹闭动脉瘤前后, 神经内镜观察动脉瘤蒂结构和穿支, 并证实动脉瘤夹的位置。结果: 术前3D CTA能清晰地显示动脉瘤及其与周围血管和骨结构的关系, 与手术中所见基本一致, 在内镜下可清楚观察动脉瘤周围的解剖, 特别是细小穿支。术后复查3D CTA, 均显示动脉瘤夹闭满意。结论: 3D CTA模拟手术有助于迅速找到并显露动脉瘤, 神经内镜辅助有利于深部血管的保护, 二者联合对提高手术成功率, 降低手术后并发症有一定价值。

关键词: 颅内动脉瘤 三维CT血管造影 神经内镜 显微手术

Three dimensional computed tomograph angiography and neuroendoscope assisted microsurgery for intracranial aneurysm

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Abstract:

Objective To determine the role of 3 dimensional computed tomograph angiography (3D CTA) and neuroendoscope in intracranial aneurysm, and to analyze its benefits. Methods A total of 38 patients with intracranial aneurysm were confirmed by operation. All the patients were examined by 3D CTA before the operation and surgical simulation was conducted to ensure the location of aneurysm and its relationship with parent aneurysm artery. Endoscopy was used as an adjunct before and after the microsurgical treatment to observe the neck anatomic features and perforating branches and to verify the optimal clipping position. Results Pre operative 3D CTA clearly displayed the aneurysm and their relation with the parent aneurysm artery, the aneurysm, the periphery vessel, and bony structures, according to demonstration during the operation. Endoscope clearly showed the anatomy around aneurysm, especially the perforating branches. Postoperative 3D CTA showed satisfactory aneurysm clipping. Conclusion Stimulation surgery of 3D CTA is helpful in finding and exposing aneurysm. Neuroendoscope is very useful for protecting deep blood vessels. Combination of the two can increase the operation success ratio and reduce postoperative complications.

Keywords: intracranial aneurysm; three dimensional computed tomograph angiography; neuroendoscope; microsurgery

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