

## Application of Multi-Modality MRI in the Diagnosis of Symptomatic Atherosclerotic Intracranial Artery Stenosis

### [Abstract]

**Objective** Prediction of symptomatic atherosclerotic intracranial arterial stenosis (s ICAS) were treated with the efficacy of stent implantation Image sensitive index, in order to provide the basis for the determination of such patients, early treatment and treatment scheme.

**Methods** 120 cases of severe s ICAS in our hospital were randomly divided into the control group and the observation group, 60 cases in each group. Before treatment, all patients were treated with perfect M R I examination (conventional MRI+ MRA 、PWI、 high resolution magnetic resonance imaging). The control group was given routine Department of internal medicine treatment, and the observation group was treated with endovascular stent assisted angioplasty. All patients were followed up for 1 years. Compared with before treatment and were followed up for 12 months of complications in two groups of patients with occurrence rate, stroke recurrence rate, mean through time (MTT), brain blood volume (CBV) and cerebral blood flow (CBF) and image analysis correlation of each index and treatment options.

**Results** Compared with before treatment, two groups of MTT decreased significantly, C B V and C B F increased significantly compared with statistical significance ( $P<0.05$ ), compared with the control group, observation group of M T T decreased significantly, CBV and CBF increased significantly, stroke recurrence rate was significantly lower compared with statistical significance ( $P<0.05$ ).

**Conclusion** Endovascular stent implantation can reduce the recurrence rate of stroke, and multi-modality M R I perfusion imaging can be used to evaluate the degree of stenosis of symptomatic atherosclerotic intracranial arteries.

**[Key words]** Multi-Modality; Magnetic Resonance Intracranial; Artery Stenosis

## 多模态 MRI 在症状性动脉粥样硬化性颅内动脉狭窄诊断中的应用

### 【摘要】

**目的:** 探讨预测症状性动脉粥样硬化性颅内动脉狭窄 (s ICAS) 患者采用支架植入术疗效的多模态 MRI 指标, 为此类患者的早期治疗及治疗方案的确定提供依据。

**方法:** 以就诊于我院的重度 SICAS 患者 120 例为研究对象, 随机分为对照组与观察组, 各 60 例。所有入组患者治疗前要完善 MRI 检查 (常规 MRI+MRA、PWI、高分辨率磁共振斑块成像)。对照组给予常规内科治疗, 观察组在常规内科治疗基础上加用血管内支架成形术。所有患者随访 1 年。比较治疗前及随访 12 个月时两组患者的并发症发生率、卒中复发率、平均通过时间 (MTT)、脑血容量 (CBV)、灌注达峰时间 (TTP) 及脑血流量 (CBF), 分析影像学各指标与治疗方案的相关性。

**结果:** 与治疗前相比, 两组的 MTT 显著降低, CBV 及 CBF 明显升高, TTP 明显降低, 差异均具有统计学意义 ( $P<0.05$ ); 与对照组相比, 观察组的 MTT 显著降低, CBV 及 CBF 明显升高, 卒中复发率明显降低, 差异均具有统计学意义 ( $P<0.05$ )。

**结论:** 血管内支架植入术降低了卒中复发率, 多模态 MRI 灌注成像的相关指标可用于评估 SICAS 支架植入术的疗效。

**【关键词】** 多模态; 磁共振; 颅内动脉狭窄



喝酸奶成为不少人的习惯, 但具体怎么喝更健康, 很多人却迷迷糊糊。弄清以下 4 件事, 帮你明明白白喝酸奶。

- ◇ 1、发酵乳、优酪乳都是酸奶。它们都是发酵后的乳品, 有可能用来发酵的菌种不同, 组合形式不同, 但都是酸奶。之所以会被叫作优酪乳, 是因为它跟酸奶的英文名 “yogurt” 发音很相似, 但并不是有个 “优” 字就表示更好。
- ◇ 2、酸奶的黏不是增稠剂。酸奶是乳 (一般是牛乳或羊乳) 经过乳酸菌发酵而成, 发酵过程中牛奶会自然变黏, 并不需要增稠剂。乳酸发酵会使得牛奶变酸, 在酸性条件下, 蛋白质分子间的疏水基团会连接起来, 形成巨大的网络, 并且把乳糖、水、脂肪都网在一起, 也就形成了酸奶的黏稠。有的酸奶加了淡奶油、乳清蛋白粉, 这样也会让酸奶质地更浓稠, 口味更香醇。市场上的大部分酸奶为了改善口感或保证每个发酵批次质量均一性, 会添加一些增稠剂, 如明胶、黄原胶等。不过, 正规厂家都是在国家食品安全法规允许的种类和剂量范围内添加, 大家可以放心喝, 但不要买三无产品。
- ◇ 3、饭前饭后喝因人而异。比如想减少进食量的人, 可选择饭前喝, 代替食物提供饱腹感。消化能力较弱的人, 最好饭后喝, 以免酸奶中残存的乳糖增加额外的消化负担。服用抗生素时, 建议隔开 2 个小时喝酸奶, 对缓解抗生素导致的肠道菌群失调有一定帮助。
- ◇ 4、活菌酸奶别用微波炉加热。冷藏的活菌酸奶怕热, 加热易导致乳酸菌失活。若怕凉, 可把酸奶整瓶泡在温水里