

兔硬脑膜动静脉瘘模型的血管造影

黄庆袁 铁林袁 毅传志袁 正袁 琦帆袁 求精袁 志安袁 尹方明袁 第一军医大学珠江医院神经外科袁 广东 广州 510282 袁

摘要目的 研究硬脑膜动静脉瘘(Duralarteriovenousfistula,DAVF)模型袁探讨其血管影像变化遥方法 将 60 只中国本兔分为假手术组(A 组)尧单纯结扎组渊组 组尧颈外静脉-颈总动脉吻合组渊组 组尧颈内静脉-颈总动脉吻合组渊组 组袁制作 DAVF 模型袁并对其行血管造影遥结果 C 组尧 组分别有 4 只和 1 只动物出现阳性体征袁其静脉压力与直径均显著增加遥血管造影证实存在 DAVF 袁循环时间延长袁尤其是静脉期明显延长遥结论 通过手术将颈动静脉直接吻合袁可以引起显著的静脉系高压袁并诱发 DAVF 袁其影像特点为循环时间延长袁尤其是静脉期明显延长袁提示静脉窦及整个头面部静脉系统压力明显增高袁血液回流受阻遥

关键词硬脑膜动静脉瘘动物模型血管影像

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黄庆袁 铁林袁 毅传志袁 正袁 琦帆袁 求精袁 志安袁 尹方明袁 第一军医大学珠江医院神经外科袁 广东 广州 510282 袁

HuangQing,LiTie-lin,DuanChuan-zhi,SUZheng,YANGQi-fan,WANGQiu-jing,HANZhi-an,YINFang-ming (DepartmentofNeurosurgery,ZhujiangHospital,FirstMilitaryMedicalUniversity,Guangzhou510282,China)

粤要目的 研究硬脑膜动静脉瘘(DAVF)模型的血管造影特点遥方法 将 60 只中国本兔分为 4 组遥 Sham-operated group(Group A) and ligation group(Group B) were constituted by 10 rabbit each, with their bilateral internal and external jugular veins(IJV and EJV) exposed or ligated. Twenty rabbits with anastomosis of the EJV and common carotid artery(CCA) and another 20 with anastomosis of the IJV and CCA to induce DAVF were assigned to group C and D respectively. Three months following the operations, cerebral angiography was performed in the rabbits and the imaging features studied. 结果 Signs of DAVF was observed in 4 rabbits in group C and 1 in group D after the operation, whose EJV pressure and diameter were significantly elevated. DAVFs were confirmed by angiography, and the circulating time of the imaging agent extended, especially the venous period. 结论 Venous hypertension, along with DAVF, can be induced by direct anastomosis of the carotid vein and artery in rabbits. The imaging features suggest that the pressure of the sinus and venous system in the head is greatly elevated, which makes venous blood return be obstructed.

关键词硬脑膜动静脉瘘;动物模型;血管造影

硬脑膜动静脉瘘 (Dural arteriovenous fistula袁 DAVF)是一种常见的颅内血管性疾病袁严重影响患者的生存质量遥对该病的研究具有较大的意义遥我们将兔颈总动脉与颈外静脉(或颈内静脉)行端侧吻合袁造成颅内静脉窦高压袁诱发 DAVF 袁通过数字减影血管造影(SA)明确诊断袁并观察其血管影像学特点遥

1 材料与方

1.1 器材

XTS-4A 型手术显微镜渊江苏镇江光学仪器厂)袁 Philip3000 数字减影血管造影机 渊德国 Philip 公司)袁 Magic-1.2F 微导管渊法国 Balt 公司)遥

1.2 动物模型的制作

1.2.1 动物 中国本兔 60 只袁雄各半袁质量 2.0~5.5kg 遥 饲养条件一致遥

1.2.2 动物麻醉与手术体位 2.5% 戊巴比妥钠 35 mg/kg 袁 w. 耳缘静脉注射袁耀 h 后追加原用量的 1/3 使动物维持在麻醉状态遥麻醉成功后袁将动物仰卧位固定于实验上遥

1.2.3 实验分组与手术步骤 假手术组 渊组 组) 0 只袁取颈正中切口袁解剖显露双侧颈内尧颈外静脉袁单纯结扎组 渊组 组) 0 只袁雄各半袁取颈正中切口袁解剖显露双侧颈内尧颈外静脉袁剪断并结扎断端遥颈外静脉-颈总动脉吻合组 渊组 组) 0 只袁雄各半袁取颈正中切口袁解剖游离双侧颈内静脉尧左侧颈外静脉并剪断袁结扎近心端与远心端袁剪断结扎前将一 Magic 1.2F 漂浮导管置于左面前静脉与左面后静脉汇合点以下 1 cm 的颈外静脉处直接测量静脉压力遥剪断右颈外静脉袁结扎近心端袁用 10-0 的无损伤缝线远心端与颈总动脉将行端侧吻合袁切断连接两侧颈外静脉的横静

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作者简介黄庆渊969 袁男袁袁北京人,1994 年毕业于第三军医大学袁主治医师袁在读博士研究生袁电话 20-85143631 袁 mail:huangqing@363.net

