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Expression of MT_1-MMP, MMP_2 and $TIMP_1$ in normal and fibrotic liver in rats

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Abstract **Objective**: To observe the pattern of expression of MT_1-MMP, MMP_2 and $TIMP_1$ in normal and fibrotic liver in rats. **Methods**: Fibrosis was induced in the liver of rats with the injection of 60% CCl_4 and 5% alcohol. The expression of MT_1-MMP, MMP_2 and $TIMP_1$ in the liver was observed with *in situ* hybridization and immunohistochemistry. **Results**: In the fibrotis liver, the expressions occurred predominantly in the myofibroblasts and fibroblasts of the areas of portal tracts and fibrotic septa and in low degrees in the vascular endothelium. Nevertheless, in the normal liver, the expression took place mainly in the vascular endothelium in low degrees. **Conclusion**: In liver fibrosis, fibroblasts and myofibroblasts are the main sites for the expression of MT_1-MMP, MMP_2 and $TIMP_1$ to occur.

Key words liver fibrosis; fibroblast; MT_1-MMP; $TIMP_1$

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颈部血管损伤2例的救治体会

Treatment of 2 cases of jugular vessels injury

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颈动脉损伤死亡率高达50%。现将我科救治的2例颈部大血管损伤病例报告如下。

1 临床资料

病例1:男,27岁,尖刀自左上颈部下颌后凹区刺入口咽部4 h。就诊时昏迷、休克,大量鲜血自颈部伤口和口内涌出,诊断为左侧颈动脉损伤。颈部伤口内填塞止血,气管切开,呼吸机辅助呼吸,快速输血、补液,1 h后患者自主呼吸恢复,血压上升致10/6 kPa,急诊室内全麻下手术探查,阻断颈总动脉近心端,向上分离见左侧颈内、外静脉断裂,颈内、外动脉在近颅底处断裂,因过于靠近颅底,尝试吻合颈内动脉失败,故将其全部结扎。术后患者嗜睡,右侧肢体运动差,经脱水、扩血管及抗感染治疗,术后72 h患者清醒,伤口一期愈合,右上肢肌张力正常,

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The role of Fas and FasL in pathogenetic mechanisms of severe hepatitis D

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Abstract **Objective**: To study the pathogenetic role and expression of Fas antigen (Fas) and Fas ligand (FasL) in severe cases of hepatitis D. **Methods**: Immunohistochemistry, double staining and serial section techniques were employed to study the expression of Fas, FasL and hepatitis D virus antigen (HDAg) in liver biopsy specimens of 48 cases of hepatitis D. **Results**: Fas was mainly expressed in the cytoplasm of hepatocytes, HDAg in the nucleus of hepatocytes and FasL in the cytoplasm of infiltrating lymphocytes and the nucleus of hepatocytes. Most of the positive hepatocytes were distributed in the spaces between infiltrating lymphocytes especially along the advancing edge of "piecemeal necrosis". The distribution and expression of Fas and HDAg were quite closely correlated in hepatitis D. The expression intensity of Fas, FasL and HDAg in hepatocytes was quite different in various types of hepatitis ($P<0.01$). The detection rate and Kiyoshi's score of Fas and FasL were higher in HDV infection than in HBV infection. **Conclusion**: In HDV infection, the distribution and expression of Fas, FasL and HDAg are significantly correlated to the inflammation intensity and the severity of liver damage. HDV infection induces the expression of Fas in the hepatocytes and apoptosis caused by cytotoxic T cells through Fas-FasL interaction may play an important role in hepatocyte damage in HDV infection.

Key words hepatitis D; hepatitis D virus antigen; Fas; Fas ligand; immunohistochemistry

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肌力稍弱(Ⅳ级)。经颅多普勒检查:左侧大脑中动脉血流速度明显减慢。术后 4 周患者痊愈出院。

病例 2:男,25 岁,车祸致右颌下区挫裂伤 1 h。就诊时神志清楚,血压 10.5/6 kPa,由陪送者用敷料紧压左颈部伤区止血。立即输血、补液,同时送手术室,气管切开全麻下清创。术中先阻断颈总动脉近心端,寻得动脉损伤处,见甲状软骨上缘平面颈动脉有一长 1.5 cm 的纵形裂口,颈内静脉断裂。结扎颈内静脉,缝合颈总动脉裂口(颈动脉断血时间约 5 min),术后患者清醒,5 d 后拔除气管导管,7 d 后痊愈出院,无任何后遗症。

2　讨论

颈动脉损伤的诊断并不困难[1],患者有明确的外伤史,伤口呈喷射状出血,循环血量大量丢失,如初期不能有效的压迫止血或不能及时就诊,患者常因大量失血而死亡。初期救治的首要问题是在压迫止血保持呼吸道通畅的同时,快速补充血容量,并同时准备手术探查。由于颈部加压止血,渗出的血液很快在颈部组织间隙中形成血肿,不同程度影响呼吸,也妨碍麻醉插管,往往需作紧急气管切开。手术探查时应有良好的切口暴露,先寻得颈总动脉的近心端暂时阻断血流后才可能寻得血管损伤处。静脉可作结扎,而颈总和颈内动脉结扎的死亡率可达 33%,神经系统并发症发生率在 50%以上[2],应尽可能吻合或修补,万不得已时才可结扎。本文第一例患者因颈内动脉断裂处靠近颅底,无法吻合,才行结扎处理,患者术后虽获良好恢复,但只是偶然情况,不可作为颈动脉结扎的依据。

关键词　颈部;损伤;血管伤
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