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Analysis of the sectional anatomy and micro-structural components of the hepatic teres ligament※

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Abstract The morphology of the transverse sections of the hepatic ligament teres (HLT) was observed under optical microscopy and its mechaniscal parameters determined with an MSA-1 image analytic system in 24 cases. It was found that HLT in adults was a potential open structure with a residual lumen. The wall of the residual lumen was covered with a single layer of endothelial cells. The HLT could be recanalized with mechaniscal means to create a route for diagnostic or therapeutic purpose. The structural characteristics of a blood vessel were preserved in the wall of HLT, which could be distinguished into tunica intima, tunica media and tunica advertita. The external diameter, the thickness of the wall and the diameter of the residual lumen of HLT were gradually increased from its subaponeurotic portion up to the free portion and the fissure portion. The wall of every portion of HLT was composed mainly of collagen fibers and of less amount of elastic fibers and smooth muscle. In the subaponeurotic, free and fissure portions of HLT and in the umbilico-portal junction, the ratio of elastic fibers and collagen fibers was 1:1.11 and 1.21:1.21 respectively. The findings indicate that from the aponeurotic portion to the umbilico-portal junction, the relative stiffness of HLT was gradually increased and the extensibility decreased.

Key words liver ligaments; sectional morphology; structural component; mechanica; characteristics

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屈肌腱移植的实验形态学研究·

论文摘要

An experimental morphologic research on flexor digital tendon

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本项研究通过不同肌腱移植的动物实验、滑液对无滑膜肌腱作用的在体培养实验、无滑膜肌腱与滑膜细胞体外联合培养以及体外培养的成人滑膜细胞经免疫组织化、激光共聚焦扫描和ACAS三维图像重建研究该细胞中Vimentin中间丝蛋白的形态分布,综合研究了不同供体肌腱移植愈合的形态变化、功能恢复效果及粘连的产生和防止等有关问题,主要研究结果如下:

(1)用4种不同肌腱移植材料进行鞘内肌腱移植,结果表明:用自体有滑膜肌腱作为移植体,其粘连轻,功能恢复最好。其次是冻干保存的异体有滑膜肌腱,再次为异体有滑膜肌腱;而临床上常用的自体无滑膜肌腱移植的效果最差。

(2)无滑膜肌腱经膝关节腔内在体组织培养,肌腱的表面有光滑的具有滑膜组织形态特征的包囊被覆,表明无滑膜肌腱在滑液环境中可能向有滑膜肌腱转化。

(3)将体外培养的滑膜细胞与无滑膜肌腱一起进行体外联合培养,滑膜细胞能覆盖无滑膜肌腱。实验证实了无滑膜肌腱滑膜化的可能性。

(4)体外培养的滑膜细胞和在体滑膜组织的滑膜组织中,观察了滑膜细胞内Vimentin的形态及分布,Vimentin在细胞的生长分化过程及环境变化时,都显现出相应的改变。认为Vimentin的表达,可能作为细胞分化潜能的一个指标。

关键词 屈指肌腱;腱/移植;滑膜细胞;组织培养;波形蛋白

中图法分类号 R687.2;R322.74

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