

刘秋颖,贺声,张云山,余泽辉.速度向量成像联合动脉健康评估软件评价健康成人颈动脉弹性及弹性储备[J].中国医学影像技术,2012,28(12):2159~2162

速度向量成像联合动脉健康评估软件评价健康成人颈动脉弹性及弹性储备

Assessment of elasticity and reserve of elasticity of carotid artery in normal adults with velocity vector imaging and arterial health package

投稿时间: 2012-04-19 最后修改时间: 2012-10-08

DOI:

中文关键词: [速度向量成像](#) [动脉健康评估](#) [弹性](#) [硝酸甘油](#) [储备](#)

英文关键词: [Velocity vector imaging](#) [Artery healthy package](#) [Elasticity](#) [Nitroglycerin](#) [Reserve](#)

基金项目:

作者	单位	E-mail
刘秋颖	中国人民解放军海军总医院超声诊断科, 北京 100048	liuqiuying1975@163.com
贺声	中国人民解放军海军总医院超声诊断科, 北京 100048	
张云山	中国人民解放军海军总医院超声诊断科, 北京 100048	
余泽辉	中国人民解放军海军总医院超声诊断科, 北京 100048	

摘要点击次数: 256

全文下载次数: 106

中文摘要:

目的 采用速度向量成像(VVI)技术联合动脉健康评估软件包(AHP)分析健康成人颈动脉弹性及弹性储备。方法 对54名健康成人进行血压测量和右颈动脉超声检查,以VVI测量收缩期最大运动速度(V_{max})、最大应变(S_{max})、最大应变率(SR_{max}),AHP测量平均直径(d)、扩张性系数(D)、弹性系数(E)。含服硝酸甘油(NTG)后5、10、15 min重复上述检查。计算 S_{max} 、D、E的储备值:储备值=(峰值-基础值)/基础值。结果 含服NTG后收缩压(Ps)、舒张压(Pd)、脉压(PP)较用药前均有下降,Pd、PP于15 min恢复至基础水平;用药后各节段 S_{max} 均增高,各节段间差异均无统计学意义, S_{max} 在5 min达到峰值,10 min降至基础;各时间点 V_{max} 、 SR_{max} 与用药前相比差异无统计学意义; S_{max} 储备值为22.29%;用药后d、D、E增高,d于15 min恢复基础水平,D于10 min恢复,E至15 min时仍高于基础状态,D储备值为31.73%,E储备值为74.51%。结论 VVI结合AHP可用于评价动脉弹性和弹性储备,有助于临床早期发现血管损害。

英文摘要:

Objective To evaluate elasticity and reserve of elasticity of carotid artery in normal adults using velocity vector imaging (VVI) and artery health package (AHP). **Methods** Blood pressure was obtained for 54 normal adults, and then carotid ultrasonography was performed. VVI was used to measure systolic maximal velocity (V_{max}), maximal strain (S_{max}) and maximal strain rate (SR_{max}). AHP was used to measure the mean diameter (d), distensibility (D) and elasticity (E) of carotid artery. After sublingual intaking nitroglycerin (NTG), every subject underwent all examinations at 5, 10 and 15 min. Reserve of S_{max} , D and E were calculated. Reserve value=(maximal value-baseline value)/baseline value. **Results** Systolic pressure (P_s), diastolic pressure (Pd) and pulse pressure (PP) decreased after intaking NTG. Pd and PP recovered to baseline after 15 min. S_{max} of every segment increased after intaking NTG, but no difference was found between each two segments. S_{max} got to peak value 5 min after intaking NTG, and recovered after 10 min. V_{max} and SR_{max} didn't changed after NTG. The reserve value of S_{max} was 22.29%. D, E and d increased after intaking NTG, d returned to basal levels after 15 min, D returned after 10 min, while E was still higher than the base state after 15 min. Reserve value of D was 31.73% and reserve value of E was 74.51%. **Conclusion** VVI and AHP can be used to assess elasticity and reserve of elasticity, therefore being helpful to early detection of vascular lesions.

[查看全文](#) [查看/发表评论](#) [下载PDF阅读器](#)

您是第6336346位访问者

版权所有:《中国医学影像技术》期刊社

主管单位: 中国科学院 主办单位: 中国科学院声学研究所

地址: 北京市海淀区北四环西路21号大猷楼502室 邮政编码: 100190 电话: 010-82547901/2/3 传真: 010-82547903

京ICP备12000849号-1

本系统由北京勤云科技发展有限公司设计