设为首页 |加入收藏 |联系我们

2014-05-21 星期三　　　首页 | 本刊简介 | 编委会 | 收录情况 | 投稿须知 | 期刊订阅 | 稿件查询 | 广告招商 | 会议

复发-缓解型多发性硬化与复发型视神经脊髓炎脑深部灰质核团铁沉积的**ESWAN**对比定量分析

Quantitative analysis of iron deposition in the deep nucleus of relapsing-remitting multiple sclerosis and relapsing neuromyelitis optica with ESWAN

作者	单位	E-mail
陈璇	重庆医科大学附属第一医院放射科, 重庆 400016	
李咏梅	重庆医科大学附属第一医院放射科, 重庆 400016	lymzhang70@yahoo.com.cn
罗天友	重庆医科大学附属第一医院放射科, 重庆 400016	
欧阳羽	重庆医科大学附属第一医院放射科, 重庆 400016	
吕发金	重庆医科大学附属第一医院放射科, 重庆 400016	
曾春	重庆医科大学附属第一医院放射科, 重庆 400016	
王忠平	重庆医科大学附属第一医院放射科, 重庆 400016	

中文摘要:

　　目的　用3.0T MR 3D增强型T2*加权血管成像(ESWAN)相位图测量复发-缓解型多发性硬化(RRMS)与复发型视神经脊髓炎(RNMO)患者脑深部灰质核团的铁含量。方法　选取RRMS患者50例(RRMS组)、RNMO患者50例(RNMO组)和年龄、性别相匹配的50名健康志愿者(对照组)行常规MR ESWAN扫描。以上3组分别分为20~39岁和40~59岁两个亚组,测量双侧苍白球(GP)、壳核(PUT)、尾状核头(HCN)、丘脑(THA)、黑质(SN)、红核(RN)及齿状核(DN)的平均相位值(MPVs),比较3个研究组间上述核团MPV在同年龄亚组间的差异。结果　RRMS患者20~39岁组SN与同年龄对照组(左:$t=-5.04,P<0.01$;右:$t=-2.82,P=0.02$)和RNMO组(左:$t=-4.79,P<0.01$;右:$t=-3.27,P=0.01$)差异有统计学意义($P<0.05$);同年龄RNMO患者脑深部核团MPVs均低于对照组,但差异均无统计学意义($P>0.05$)。RRMS患者双侧HCN(左:$r=-0.42,P=0.01$;右:$r=-0.43,P=0.01$)和双侧DN(左:$r=-0.42,P=0.02$;右:$r=-0.36,P=0.04$)的MPV与病程呈负相关,但其扩展残疾状况量表评分与脑深部核团MPV未见明显相关性($P>0.05$);RNMO患者脑深部各核团MPV与病程之间亦未见明显相关性($P>0.05$)。结论　ESWAN相位图可量化评价脑铁含量;探讨上述两种病脑深部灰质核团铁沉积的变化有助于理解脑深部灰质核团的病理改变。

英文摘要:

Objective To quantitatively assess brain iron deposition in the deep nucleus of relapsing-remitting multiple sclerosis (RRMS) and relapsing neuromyelitis optica (RNMO) on phase images using MR 3D enhanced T2* weighted angiography (ESWAN). **Methods** Conventional MRI and ESWAN were performed in 50 RRMS patients (RRMS group), 50 RNMO patients (RNMO group) and 50 and gender- matched normal subjects (control group). Each of the above three groups was respectively divided into two age subgroups, i.e.20—39 years old subgroup and 40—59 years old subgroup. Bilateral mean phase values (MPVs) of globus pallidus (GP), putamen (PUT), head of caudate nucleus (HCN), thalamus (THA), substantia nigra (SN), red nucleus (RN) and dentate nucleus (DN) were measured and compared with same aged subgroups. **Results** Bilateral SN of the controls (left: $t=-5.04$, $P<0.01$; right: $t=-2.82$, $P=0.02$) and of RNMO (left: $t=-4.79$, $P<0.01$; right: $t=-3.27$, $P=0.0$) 20—39 subgroups were significantly lower ($P<0.05$). All MPVs of deep nucleus in RNMO patients were lower than those of control group, but no significant variation of MPVs was not found ($P>0$) In RRMS group, the iron concentration in bilateral HCN (left: $r=-0.42$, $P=0.01$; right: $r=-0.43$, $P=0.01$) and DN (left: $r=-0.42$, $P=0.02$; right: $r=-0.36$, $P=0.04$) were correlated with disease dura The expanded disability status scale (EDSS), which was contributed to measure the severity of physical disability in RRMS, was not correlated with MPV ($P>0.05$). In RNMO group, no correlation between MPV and disease duration was found ($P>0.05$). **Conclusion** ESWAN can be used to evaluate iron accumulation in RRMS and RNMO. Observation of brain iron deposition in the deep nucle RRMS and RNMO is helpful to understand of the pathological changes of both diseases.

查看全文 查看/发表评论 下载PDF阅读器