

Spatial characteristics of flash visual evoked potential in normal subjects

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Abstract :

AIM :

To study the characteristics of Visual evoked potential (VEP) in normal subjects, so as to obtain reference values.

METHODS :

By using Vision Monitor visual evoked response imaging system, the Flash visual evoked potential (FVEP) was recorded on 60 normal subjects (73 eyes) stimulated by white, red and blue flash. The subjects were divided into 4 groups by age : A group (5-14 years old) 19 eyes, B group (15-29 years old) 17 eyes, C group (30-49 years old) 21 eyes, D group (50-65 years old) 16 eyes. Patter visual evoked potential (PVEP) was recorded on 62 normal subjects (77 eyes) stimulated by 15,30 and 60min pattern. The subjects were divided into 4 groups by age : A group (5-14 years old) 20eyes, B group (15-29 years old) 20 eyes,C group (30-49 years old) 22 eyes,D group (50-65 years old) 15 eyes.

RESULTS :

Stimulated by white flash, red flash and blue flash, the implicit time of FVEP P2 wave were (122.2± 8.3) ms, (122.5 ± 11.7) ms, (124.1 ± 8.5) ms respectively; Stimulated by white flash the implicit time of D group 's P2 wave were longer than that of other age groups (P (0.05) . Stimulated by red and blue flash the implicit time of A group and D group 's P2 wave were longer than that of other age groups (P (0.05) . Stimulated by 15min,30min and 60min pattern, the implicit time of PVEP P100 wave were (111.6± 6.0) ms, (105.9± 5.3) ms, (105.1± 3.8) ms respectively; the implicit time of PVEP P100 wave of different age groups had no statistical meaning (P 0.05) .

CONCLUSION :

Stimulated by flash, the implicit time of P2 wave in over 50 years old group and no more than 14 years old group is longer than that of other age groups. Stimulated by pattern, the implicit time of PVEP P100 wave of different age groups has no statistical meaning.

Keywords :

[normal subjects visual evoked potential](#)

正常人视觉诱发电位的特征

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文 摘:

目的：探讨正常人视觉诱发电位（visual evoked potential, VEP）的特征，以获得正常参考值。方法：应用法国 Metrovision 公司生产的 Vision Monitor 视觉诱发系统对正常人 60 例（73 眼）在白色、红色和蓝色闪光刺激下进行闪光 VEP 检查，按年龄不同分成 4 组：A 组（5~14 岁）19 眼，B 组（15~29 岁）17 眼，C 组（30~49 岁）21 眼，D 组（50~65 岁）16 眼；对正常人 62 例（77 眼）在 15、30 和 60min 视角黑白棋盘格翻转图形刺激下进行图形 VEP 检查。按年龄不同分成 4 组：A 组（5~14 岁）20 眼，B 组（15~29 岁）20 眼，C 组（30-49 岁）22 眼，D 组（50-65 岁）15 眼。结果：在白色、红色、蓝色闪光刺激下 P₁ 波的潜伏期分别为 122. 2±8. 3, 122. 5±11. 7, 124. 1±8. 5ms；在白光刺激下 D 组 P₁ 波的潜伏期与其他各年龄组相比，均有差异（P<0. 05）。其他各年龄组相互比较，均无显著意义。在红光和蓝光刺激下 A 组与 D 组比较，A 组、D 组与其他年龄组比较均延长，有显著意义（P<0. 05），其他各年龄组相互比较，均无显著意义。在 15'、30'和 60'视角黑白棋盘格翻转图形刺激下 P100 波的潜伏期分别为 111. 6±6. 0, 105. 94±5. 3, 105. 14±3. 8ms。各年龄组图形 VEP 相比较均无显著意义（P>0. 05）。结论：在白色、红色和蓝色闪光刺激下 14 岁以下年龄组和 50 岁以上年龄组闪光 VEP P₁ 波的潜伏期较其他组延长，图形 VEP P100 波的潜伏期各年龄组比较无显著差异。【著者文摘】

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