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【应用研究】

不同类型黄斑裂孔周边视网膜变性的比较[△]

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Comparison of peripheral retinal degeneration in macular hole caused by high myopia and trauma
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[Key words] high myopia; eye trauma; macular hole
[Abstract] Objective To compare the occurrence of the peripheral retinal degeneration in macular hole due to high myopia (> -6.00 D) and trauma. **Methods** Data of 106 patients (106 eyes) with macular hole undergoing vitrectomy operation were analyzed, and they were divided into two groups according to myopic refractive degree: group A (68 eyes of 68 patients with high myopia) and group B (38 eyes of 38 patients with trauma). The peripheral retinas of all patients were examined carefully through preoperative three-mirror contact lens test and intraoperative the vitrectomy surgery. **Results** There were 52 eyes with peripheral retinal degeneration in group A, accounting for 76.47%, while group B had 8 eyes with peripheral retinal degeneration, accounting for 21.05% in group B. The occurrence rates of peripheral retinal degeneration between the two groups approached significant difference ($\chi^2 = 30.48, P = 0.000$). Among 52 eyes with retinal degeneration in the retina of the group A, non-oppressed whitening degeneration presented in 42 eyes, and the detection rate was 61.76%, lattice degeneration was in 44 eyes, with the detection rate of 64.71%, cystic degeneration in 19 eyes, with the detection rate of 27.94% and other types of degeneration in 15 eyes, with the detection rate of 22.06%. There were 8 eyes with retinal degeneration in the retina of the group B, and non-oppressed whitening degeneration presented in 6 eyes, with the detection rate of 15.79%, lattice degeneration was in 7 eyes, with the detection rate of 18.42%, cystic degeneration in 4 eyes, with the detection rate of 10.53% and other types of degeneration in 2 eyes, with the detection rate of 5.26%. **Conclusion** The occurrence rate of peripheral retinal degeneration in traumatic patients is obvious lower than that in patients with high myopia.

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[关键词] 高度近视;眼外伤;黄斑裂孔
[摘要] 目的 比较高度近视性(> -6.00 D)黄斑裂孔和外伤性黄斑裂孔的患眼周边视网膜变性区的发生情况。**方法** 行玻璃体切割术的黄斑裂孔患者106例(106眼),分为两组:A组为高度近视性黄斑裂孔组,68例(68眼);B组为外伤性黄斑裂孔组,38例(38眼)。所有患者均进行术前三面镜和玻璃体切割术中对周边视网膜检查,以确认周边视网膜的变性情况。**结果** A组中周边视网膜有变性区者52眼,占76.47%;B组中周边视网膜有变性区者8眼,占21.05%。两组周边视网膜变性区的发生率比较,差异有统计学意义($\chi^2 = 30.48, P = 0.000$)。A组周边视网膜有变性区的52眼中,非压迫变白者42眼,检出率为61.76%;格子样变性44眼,检出率为64.71%;囊样变性19眼,检出率为27.94%;其他类型变性15眼,检出率为22.06%。B组周边视网膜有变性区的8眼中,非压迫变白者6眼,检出率15.79%;格子样变性7眼,检出率18.42%;囊样变性4眼,检出率10.53%;其他类型变性2眼,检出率5.26%。**结论** 外伤性黄斑裂孔其周边视网膜变性的发生率比高度近视黄斑裂孔明显较少。

黄斑裂孔是指黄斑中心视网膜神经上皮的全层缺失,可分为特发性和继发性,继发性黄斑裂孔尤以高度近视性和外伤性常见^[1-2]。高度近视性黄斑裂孔和外伤性黄斑裂孔均可造成视力的严重下降^[3-4],有关黄斑裂孔形成机制的研究已有很多,主要集中在黄斑部视网膜前后方向及切线方向所受到的牵引^[1-3],但是对于继发性黄斑裂孔的周边视网膜变性的研究较少。本文旨在比较不同原因导致的黄斑裂孔的周边视网膜变性区的发生情况,现将结果报告如下。

1 资料与方法

1.1 一般资料

将2014年4月至2016年9月本院

行玻璃体切割术的黄斑裂孔患者 106 例(106 眼)分为两组:A 组为高度近视性黄斑裂孔组,共 68 例(68 眼),年龄 15 ~ 76(51.57 ± 15.17)岁;B 组为外伤性黄斑裂孔组,共 38 例(38 眼),年龄 8 ~ 68(45.89 ± 14.47)岁。所有病例均进行术前三面镜和玻璃体切割术中对周边视网膜的检查,以确认周边视网膜变性的情况。

1.2 统计学分析 使用 SPSS 18.0 统计软件包,采用卡方检验比较两组周边视网膜变性的发生率, $P < 0.05$ 为差异有统计学意义。

2 结果

2.1 不同原因导致的黄斑裂孔周边视网膜变性的发生情况 两组患者年龄相似,差异无统计学意义($t = 1.88, P = 0.06$)。A 组 68 例 68 眼高度近视性黄斑裂孔患者,未见周边视网膜变性者 16 眼,占 23.53%;有周边视网膜变性者 52 眼,占 76.47%。B 组 38 例 38 眼外伤性黄斑裂孔患者,未见周边视网膜变性者 30 眼,占 78.95%;有周边视网膜变性者 8 眼,占 21.05%。两组周边视网膜变性的发生率比较,差异有统计学意义($\chi^2 = 30.48, P = 0.000$)。

2.2 不同原因导致的黄斑裂孔周边视网膜变性的类型 A 组周边视网膜有变性区的 52 眼中,非压迫变白者 42 眼,检出率为 61.76%;格子样变性 44 眼,检出率为 64.71%;囊样变性 19 眼,检出率为 27.94%;其他类型变性 15 眼,检出率为 22.06%。B 组周边视网膜有变性区的 8 眼中,非压迫变白者 6 眼,检出率为 15.79%;格子样变性 7 眼,检出率为 18.42%;囊样变性 4 眼,检出率为 10.53%;其他类型变性 2 眼,检出率为 5.26%。

3 讨论

黄斑裂孔是黄斑部常见的疾病之一。临床上分为两大类,即一类为特发性黄斑裂孔,指在无其他病因的情况下,仅仅由于玻璃体后皮质对黄斑中心凹产生了切线或前后方向的牵拉,从而造成中心凹裂孔^[5];与特发性黄斑裂孔不同,还有一类是因外伤、眼科手术、视网膜疾病、遗传性眼病、眼内炎症、眼内肿瘤或其他眼病等病变导致的黄斑裂孔,这些致病因素可以来自眼外或眼内,通常是由多种因素共同作用,因而统称为继发性黄斑裂孔^[1]。

外伤性黄斑裂孔是临床上最常见的继发性黄斑裂孔,尤以中青年男性多见,其发病率约占闭合性眼外伤的 1.4% 及开放性眼外伤的 0.15%,致伤原因多种多样,如钝挫伤、穿通伤、激光或电击伤等^[6-8]。有研究报道一些钝挫伤性黄斑裂孔未经治疗可自行闭合,裂孔闭合的时间早则在钝挫伤后 8 d,晚则在钝挫伤 6 个月以后^[9-12]。目前认为,外伤性黄斑裂孔形成的机制有以下 5 种:(1)暴力直接传递到眼球后极部,眼球瞬间受压,形态突然变化,黄斑可能为暴

力因素引起的切线方向力量直接撕裂,或为玻璃体后部与视网膜前后相对运动形成的牵拉力量撕裂^[9]。(2)暴力作用于黄斑部,未立即发生裂孔,而是形成黄斑囊样水肿、后极部视网膜局部浅脱离,当囊肿破裂后形成迟发型裂孔。这种黄斑裂孔多于伤后 6 周左右出现,推测原因可能是传递至眼球后部的力量强度较小或是视网膜组织弹性较好,因而未发生立刻的组织撕裂^[13]。(3)非直接作用于眼球的外伤,主要是由于暴力引起的振动波传至眼球后,造成玻璃体、视网膜和脉络膜等的损伤导致黄斑裂孔形成^[14]。(4)由外力引起突然发生的玻璃体后脱离可能是黄斑裂孔产生的一个原因,但也有观察发现,黄斑裂孔的部分患者未见 PVD,所以认为其不是造成黄斑裂孔的主要原因。而持续存在的玻璃体后黏附可能与黄斑裂孔的形成密切相关^[9,15]。(5)外力传递到眼球后部,可能引起后极部组织挫伤甚至发生挫伤性坏死,局部出现炎症、渗出,组织受损导致裂孔,但此机制需要更多组织细胞和动物实验给予证实^[13,16]。

高度近视性黄斑裂孔是另一种常见的继发性黄斑裂孔,国外学者多把高度近视黄斑裂孔作为特发性黄斑裂孔的一部分^[17],其发生机制可能是:(1)解剖学上,黄斑部的视网膜与玻璃体皮质粘连紧密,玻璃体液化浓缩造成不完全后脱离对黄斑的前后方向与切线方向的牵引;(2)视网膜内界膜表面肌纤维细胞收缩牵拉,黄斑裂孔持续扩大;(3)高度近视眼眼轴拉长伴后巩膜葡萄肿使后极部视网膜不能附着于巩膜壁,视网膜脉络膜组织萎缩,尤其视网膜色素上皮萎缩,脉络膜毛细血管减少或消失,甚至透见巩膜而呈“白底”,使视网膜黏附力降低,加重了视网膜组织退行性变性或萎缩,促进了黄斑裂孔的形成^[18-19]。

综上所述,高度近视性黄斑裂孔的整个眼底呈退行性改变,病程久,表现为视网膜变性或萎缩,尤其在周边视网膜此类慢性病变更突出;而外伤性黄斑裂孔往往突发于健康眼球,即受伤之前该眼球的眼底少或无退行性的改变,病程短,周边视网膜病变常常为锯齿缘离断、视网膜裂孔、脱离或出血等急性改变^[20-21];两者明显不同。另外,在临床工作中发现,高度近视患者由于自幼视力不佳,已适应视物模糊的感觉,即使发生黄斑裂孔甚至视网膜脱离,对视力影响的程度远没有外伤性黄斑裂孔明显,患者往往可以忍耐很久,耽误了治疗时间,增加了周边视网膜变性的发生率。而外伤性黄斑裂孔的患者,由于患眼受伤之前的视力常常很好,因此一旦伤及黄斑,视力可明显下降,导致患者急于求医,反而抓住了最佳治疗时间。因此,外伤性黄斑裂孔其周边视网膜变性的发生率比高度近视视网膜脱离合并黄斑裂孔明显较少。

本研究结果提示,当遇见高度近视性黄斑裂孔

时,要尽早详查周边视网膜,发现变性区及时处理,并且在手术中要更加注意周边视网膜细小的变性区,稍有疏漏将直接关系到手术的成败;而对于外伤性黄斑裂孔,手术中除了检查周边视网膜变性区外,更多的是考虑外伤导致的急性病变的处理。总之,不同类型的黄斑裂孔由于致病因素各异,其治疗侧重点也各不相同。

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