

23G 微创玻璃体切割术治疗特发性黄斑裂孔的疗效

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Clinical effect of 23G transconjunctival sutureless vitrectomy for idiopathic macular hole

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Abstract

• **AIM:** To observe the clinical effects of 23-gauge (23G) transconjunctival sutureless vitrectomy for idiopathic macular hole.

• **METHODS:** In this retrospective study, 28 eyes of 28 consecutive patients who underwent 23-gauge transconjunctival sutureless vitrectomy for idiopathic macular hole between January 2013 and October 2013 in our hospital were evaluated. The follow-up time was 3-12mo. The operation effects were analyzed.

• **RESULTS:** The macular hole was closed in 27 eyes of 28 eyes which underwent 23G transconjunctival sutureless vitrectomy and not closed in 1 eye after surgery. Best-corrected visual acuity at postoperative 1, 3mo was significantly improved compared to pre-operation ($\chi^2 = 8.65, P = 0.003; \chi^2 = 10.33, P = 0.001$). The macular hole was closed as shown by OCT. Intraoperative incision was sutured in 5 cases (18%). There was no statistically significant difference in intraocular pressure between pre-operation and post-operation. No post-operative complications such as endophthalmitis, retinal detachment, vitreous hemorrhage came up.

• **CONCLUSION:** 23G transconjunctival sutureless vitrectomy is observed to be safe and effective technique in the treatment of macular hole. It is therefore our preferred system for straightforward macular surgery.

• **KEYWORDS:** vitrectomy; macular hole; optical coherence tomography

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摘要

目的:观察23G微创玻璃体切割术治疗特发性黄斑裂孔的临床效果。

方法:选取2013-01/10在我院采用23G玻璃体切割系统治疗特发性黄斑裂孔患者28例28眼,进行回顾性研究。对患者进行3~12mo的术后随访观察,进行疗效评价与分析。

结果:23G微创玻璃体切割术治疗特发性黄斑裂孔28眼,27眼黄斑裂孔愈合,1眼未愈合。术后1,3mo矫正视力较术前有显著提高($\chi^2 = 8.65, P = 0.003; \chi^2 = 10.33, P = 0.001$)。光学相干断层扫描(optical coherence tomography, OCT)提示黄斑区裂孔封闭。术中切口缝合5例(18%)。术后眼压与术前相比差异无统计学意义。术后未发生眼内炎、视网膜脱离、玻璃体出血等并发症。

结论:23G微创玻璃体切割术是治疗特发性黄斑裂孔的一种安全有效的方法,对于简单的黄斑区手术考虑首选23G微创玻璃体切割术。

关键词:玻璃体切割术;黄斑裂孔;光学相干断层扫描

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0 引言

黄斑裂孔(macular hole, MH)是指发生于黄斑区域的视网膜全层缺损,最初由Knapp于1869年描述并报道。多种原因可导致黄斑裂孔,大多数黄斑裂孔难以找到明确的原因,称之为特发性黄斑裂孔(idiopathic macular hole, IMH),多发生于55岁以上年龄段的老年女性。其起病隐匿,病程进展缓慢,早期可无症状,随着病情的发展,不同分期的临床表现有所不同,常见症状包括中心视力下降、视物变形等,视力平均降至0.1。1990年代初Kelly等^[1]开始采用玻璃体切割手术联合内界膜(internal limiting membrane, ILM)剥除方法治疗IMH。目前23G微创玻璃体切割手术(23-gauge transconjunctival sutureless vitrectomy, 23G TSV)在临床广泛运用,更适合于眼内情况较为简单的患者,其中包括IMH和黄斑前膜。我们对IMH的患者行23G TSV,取得较好的效果,现报告如下。

1 对象和方法

1.1 对象 选取全部2013-01/10在本院眼科治疗特发性黄斑裂孔患者28例28眼,男4例4眼,女24例24眼,均为单眼发病,年龄47~78(平均61.18)岁。其中合并白内障12眼,合并黄斑视网膜脱离16眼。所有患者均属于Gass分期Ⅲ,Ⅳ期的患者,有不同程度的视物变形,视力明显下降,术前视力光感~0.4,病程2~12mo。术前对所有患者进行B超、最佳矫正视力、眼底、裂隙灯、眼压检查以及光学相干断层扫描及常规全身检查。

切割术除去玻璃体后皮质,可能有利于MH的闭合。大多数IMH患者OCT检查时可发现玻璃体不完全后脱离,与黄斑中心凹的粘连比较牢固,其产生牵拉力最终导致MH的形成。依据上述发病机制,眼科医生多倾向于通过玻璃体手术来消除玻璃体对黄斑区的牵拉。由于23G TSV创伤小,恢复快的优势,在临床的应用越来越广泛。本组病例观察手术后解剖复位成功率为96%,Kusuhara等^[2]使用23G TSV对IMH患者进行MH的修补,解剖复位成功率为96%,Krishnan等^[3]报道23G TSV治疗黄斑裂孔闭合率100%,与本研究报道的数据类似。23G TSV治疗IMH,通过微小创伤进行手术,使手术切口明显缩小,加快伤口愈合,降低术后反应性炎症及不适感,加快术后康复^[4]。因此23G TSV特别适合于黄斑区疾病的手术治疗。

ILM剥除可以增加黄斑裂孔闭合率,剥除范围是裂孔周围1个视盘直径的范围^[5]。Lois等^[6]的研究报道,手术中剥除ILM的患者,术后1mo的IMH闭合率是84%,术中未进行ILM剥除,IMH闭合率是48%,两者差异有显著统计学意义。虽然如此,在Tadayoni等^[7]的一项回顾性研究表明,剥除ILM与未剥除ILM的眼相比较,视敏度明显下降,微暗点明显增加。因此ILM的剥除可能存在一定的副作用。ICG、台盼蓝和亮蓝G等染色剂术中使用可以提高ILM能见度,帮助ILM撕除。染色剂置留视网膜表面时间要尽可能的短,通常少于1min,以减少染色剂对视网膜可能存在毒性作用。陆续有术中使用的ICG所带来负面影响的报道。包括视野缺损、视神经纤维层裂开、视网膜微小出血和神经节细胞的异常改变^[8]。现在有更多的医生尝试在术中使用曲安奈德代替ICG辅助ILM剥除,以期降低术中使用染色剂所带来的副作用^[9,10]。本研究中,手术者使用ICG作为染色剂,在以后手术中考虑以曲安奈德代替ICG,并进行两者比较。

术后早期低眼压是TSV最常见的并发症,主要原因是巩膜切口渗漏。在本研究中,术中发现可疑切口渗漏的患者,进行及时的切口缝合,无论是术中切口缝合的术眼还是未缝合的术眼,术后眼压与术前相比,差异均无统计学意义。术后亦未发现重度术后低眼压(IOP \leq 6mmHg),中度术后低眼压(6mmHg<IOP \leq 8mmHg)有2例(7%)。在Herwig等^[11]的研究中,重度术后低眼压1例(1.8%),中度术后低眼压7例(13%)。与他们相比,我们的术后早期低眼压发生率较低。可能是由于他们术中未进行切口缝合,而本组研究中,术中缝合率是18%,因此有效减少了术后低眼压的发生。与本研究类似的是,在Goncu等^[12]研究中,他们23G TSV术中缝合率是15.1%,术后未发现重度低眼压,中度术后低眼压的发生率是15.1%。此外,Singh等^[13]在术后患者眼表涂以墨水,观察到超过六成的无缝合巩膜切口有墨水渗入眼内,但如果将巩膜切口缝合,则未发现此现象。由此可见,在目前阶段,视手术的时间、复杂程度及切口的具体情况,必要时对巩膜切口进行缝合,是防止术后早期低眼压行之有效的办法。另外本研究中,术中C₃F₈气体填充组的术后第1d眼压高于硅油填充组,差异具有统计学意义($t=2.25, P=0.04$),其余时间无统计学意义。这可能与术后早期C₃F₈气体膨胀有关,但全部术眼术后第1d的眼压,与术前相比,差异无统计学意义($t=0.48, P=0.64$)。

本组28例患者应用23G TSV治疗IMH,1眼黄斑裂孔未愈,27眼黄斑裂孔愈合,视力较术前有不同程度提

高,视物变形消失或减轻,OCT提示黄斑区光反射带连续,术后无眼内容炎、视网膜脱离、玻璃体出血发生。玻璃体切割术后眼内容炎非常少见,发生率为0.02%~0.05%。以往研究曾提出TSV可能会增加眼内容炎的发生。但目前越来越多的研究显示,微创玻璃体切割术的眼内容炎发生率与20G玻璃体切割术相比并没有显著增加^[14,15]。Scott等^[15]在一项多中心临床试验中,发现20G,23G和25G玻璃体切割术后发生眼内炎的比例分别为1/4403(0.02%),1/3362(0.03%)和1/789(0.13%),两两比较无统计学差异。

总的说来,23G TSV获得了良好的手术效果,且术中和术后并发症的发生并无增加。因此23G TSV在增加患者的手术舒适性同时,并未减少手术安全性。对于简单的黄斑区手术我们首选23G TSV。但由于本组病例手术例数少和随访时间的限制,需要进一步做远期的观察和研究。

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