

手术治疗儿童霰粒肿的临床观察

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摘要

目的: 评估刮除手术治疗霰粒肿的临床效果与安全性。方法: 回顾性分析我院2026年1月至2026年2月期间, 确诊为霰粒肿并接受手术治疗的174例患儿的临床资料。记录手术时间、术后创口愈合情况、术后1周、1个月、3个月的治愈率、复发率及并发症发生情况。结果: 174例患者手术均顺利完成, 主要并发症包括局部皮下瘀血2例、出血5例以及眼睑水肿30例, 去重后约35例; 有感染史患儿68例, 发生并发症22例(32.4%); 无感染史患儿106例, 并发症13例(12.3%), 两组比较差异有统计学意义($\chi^2 = 6.7, P = 0.010$), 提示术前合并感染史者术后早期并发症风险显著升高; 合并感染($OR = 3.2, 95\% CI: 1.5 \sim 6.8, P = 0.002$)和病灶直径 $> 10 mm$ ($OR = 2.8, 95\% CI: 1.26 \sim 6.4, P = 0.015$)是术后需二次手术复发的独立危险因素; 年龄 > 6 岁($OR = 0.5, 95\% CI: 0.3 \sim 0.9, P = 0.040$)与复发风险降低显著相关, 提示年龄 ≤ 6 岁的低龄患儿复发风险更高。而下睑与上睑相比, 复发风险差异无统计学意义($OR = 0.7, 95\% CI: 0.3 \sim 2.0, P = 0.517$)。术后1周治愈率为47%, 1个月为80%, 3个月为100%。术后均恢复良好, 外观满意。未出现严重感染或眼睑内外翻、缺损畸形。结论: 霰粒肿保守治疗效果不佳的患儿, 应及时给予手术治疗。手术治疗霰粒肿疗效确切, 治愈率高, 复发率低, 操作相对安全。对于巨大霰粒肿、局部肉芽增生、多发性霰粒肿的患儿是理想的治疗选择。合并感染患儿术后更易出血、眼睑水肿以及二次手术; 低龄、病灶较大亦是霰粒肿复发的危险因素。

关键词

霰粒肿, 睑板腺囊肿, 手术治疗, 疗效, 并发症

Clinical Observations on Surgical Treatment of Chalazia in Children

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Abstract

Objective: To evaluate the clinical efficacy and safety of curettage for the treatment of chalazia. **Methods:** A retrospective analysis was conducted on the clinical data of 174 pediatric patients diagnosed with chalazia and treated surgically at our hospital between February and March 2026. We recorded the duration of surgery, postoperative wound healing, cure rates at 1 week, 1 month and 3 months postoperatively, recurrence rates, and the incidence of complications. **Results:** All 174 surgeries were completed successfully. The average duration of surgery was 15 minutes, and wounds healed on average 6.5 days postoperatively. The cure rate was 47% at 1 week postoperatively, 80% at 1 month, and 100% at 3 months. Reoperation was performed in 30 cases: 14 children underwent surgery for a meibomian gland cyst in the contralateral eyelid during follow-up, and 24 children underwent surgery for a meibomian gland cyst in a different location of the same eye. All patients recovered well postoperatively with satisfactory cosmetic results. Major complications included 2 cases of postoperative local subcutaneous hematoma and 30 cases of temporary eyelid edema; no severe infections, eyelid entropion or ectropion, or deformities were observed. All 174 patients underwent successful surgery. Major complications included local subcutaneous hematoma in 2 cases, bleeding in 5 cases, and eyelid edema in 30 cases (approximately 35 cases after deduplication); Among the 68 children with a history of infection, 22 (32.4%) developed complications; among the 106 children without a history of infection, 13 (12.3%) developed complications. The difference between the two groups was statistically significant ($\chi^2 = 6.7$, $P = 0.010$), suggesting that patients with a history of preoperative infection had a significantly higher risk of early postoperative complications; Concomitant infection (OR = 3.2, 95% CI: 1.5~6.8, $P = 0.002$) and lesion diameter > 10 mm (OR = 2.8, 95% CI: 1.2~6.4, $P = 0.015$) were independent risk factors for recurrence requiring a second surgery; age > 6 years (OR = 0.5, 95% CI: 0.3~0.9, $P = 0.040$) was significantly associated with a reduced risk of recurrence, suggesting that younger patients aged ≤ 6 years have a higher risk of recurrence. In contrast, there was no statistically significant difference in recurrence risk between the lower and upper eyelids (OR = 0.7, 95% CI: 0.3~2.0, $P = 0.517$). The cure rate was 47% at 1 week postoperatively, 80% at 1 month, and 100% at 3 months. All patients recovered well postoperatively, and cosmetic outcomes were satisfactory. No cases of severe infection, eyelid entropion or ectropion, or deformities due to tissue defects were observed. Translated with DeepL.com (free version). **Conclusion:** Children with chalazia that do not respond well to conservative treatment should undergo prompt surgical intervention. Surgical treatment of chalazia is effective, with a high cure rate, low recurrence rate, and is relatively safe. It is the ideal treatment option for children with giant chalazia, localized granulation tissue proliferation, or multiple chalazia. Children with concurrent infections are more prone to postoperative bleeding, eyelid swelling, and the need for a second surgery; younger age and larger lesions are also risk factors for chalazion recurrence.

Keywords

Chalazion, Surgical Treatment, Efficacy, Recurrence Rate, Complications

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1. 引言

睑板腺是位于睑板内的皮脂腺，其分泌的皮脂直接排入黏膜皮肤交界处，通过防止泪膜从眼表过快蒸发来润滑眼睛。这些分泌物还可能在防止泪液溢出、保护睑缘以及在眼表形成保护性密封层方面发挥

作用[1]。该腺体由 10~15 个腺泡组成,呈簇状排列并汇入一条长长的中央导管。上眼睑约有 30~40 个睑板腺,其长度可达 10 毫米;而下眼睑则含有 20~30 个较短的睑板腺,长度最多为 6 毫米。睑板腺囊肿又称霰粒肿,一种由于 Zeis 腺或睑板腺阻塞后挤压邻近组织,而形成的睑板腺非化脓性无菌肉芽肿,有多发性、易复发的特点,而近几年口罩佩戴又促使霰粒肿发病率增加[2]。目前关于霰粒肿发病机制的学说主要有两种,一种学说与脂质成分改变有关,另一种学说认为与炎症通路相关。儿童腺泡和导管较成人细,分泌产物极易造成阻塞,故而相较于成年人,霰粒肿更常见于儿童,特别高发于 5 岁以前低龄儿童,合并炎症时可引起结膜炎、蜂窝织炎,导致儿童生活质量下降[3]。目前手术切开刮除术及局部点抗生素、激素眼药、局部热敷及激素注射是西医治疗睑板腺囊肿主要方法[4]。目前美国眼科学会的指南对于热敷的最佳温度和持续时间仍未明确,如果保守治疗在初次评估后 2 周内或 2 个月以上仍未见效,可根据病变的临床表现考虑其他治疗方案[5]。霰粒肿的位置和总体大小通常决定了适当的治疗路径。位于中央、急性、体积较大且边界清晰的病变,采用切开引流作为主要治疗方法更可能获得良好疗效。霰粒肿患儿病程长,长期过度使用抗生素可能产生耐药性,含激素眼药也容易造成激素性青光眼等并发症,本研究评估刮除手术治疗儿童霰粒肿的临床疗效与安全性,为保守治疗效果不佳的患儿的进一步规范治疗提供参考。

2. 资料与方法

2.1. 一般资料

采用回顾性研究方法,选取 2026 年 1 月~2026 年 2 月在我院门诊行手术治疗的 174 例霰粒肿患儿(180 只眼)作为研究对象,其中男 90 例,女 84 例。年龄 6 月龄~12 岁,合并感染者 68 例。

2.2. 手术方法

术前充分告知监护人手术风险及并发症,知情同意并签字后,行血常规检查,未见异常后可行手术。点 4 g/L 盐酸丙美卡因滴眼液行局部麻醉,使用医疗巾及人力辅助固定患儿,局部消毒铺巾后,睑结膜面处病损用睑板腺夹夹住并翻转暴露,从囊肿顶端作与睑缘垂直的切口,切开囊壁后可见内容物溢出,用刮匙将内容物刮除干净,有齿镊夹取囊壁组织,剪除分离的囊壁,侵及皮肤面霰粒肿手术切口选择皮肤面,从皮肤面做顺皮纹方向切口,术中完全清理肉芽组织及周围溃烂的皮肤组织,去除睑板夹,局部纱布加压止血,止血满意后局部涂抹氧氟沙星或妥布霉素眼膏,纱布包扎伤口,次日行局部换药,常规予以抗生素滴眼液及眼膏局部用药 1 周后随访。

2.3. 疗效评价标准及随访与观察指标

治愈标准:囊肿完全消失,眼睑外观及触感正常,无自觉症状。术后在原位或同一眼睑再次出现囊肿为霰粒肿复发。记录每位患儿年龄、病灶直径(分为 $> 10\text{ mm}$ 以及 $\leq 10\text{ mm}$)、病灶部位、有无感染史以及是否复发和复发的次数,同时记录是否出现以下并发症:感染、出血、眼睑水肿、上睑下垂、眼睑外翻、瘢痕形成、结膜肉芽肿等。随访时间点:术后第一天、术后 1 周、1 个月、3 个月。观察患儿创口愈合时间、治愈率、复发率、并发症发生率。

运用 SPSS 26.0 对数据进行统计学分析,早期并发症的影响运用卡方检验比较, $P < 0.05$ 表示差异有统计学意义;复发率的影响因素运用 Logistic 回归进行分析。

3. 结果

174 例患儿术后均恢复良好,肿物消除,外观满意,5 名患儿术后第 1 天出现切口出血,予以局部按

压后自行止血，30 名患儿眼睑水肿，2 名患儿出现皮下瘀血，均自行消退。术后 1 周复查时手术切口均愈合良好，未见感染、出血；术后 1 月复查时，6 例患儿因对侧眼睑板腺囊肿行手术治疗，10 例患儿同一眼再行手术治疗；术后 2~3 月期间 2 名患儿皮肤面出现少量瘢痕增生，予以尿素软膏局部按摩后好转，8 例患儿对侧、14 例患儿同一眼囊肿手术治疗，二次手术一共 38 例。术后 3 月复查时，均 1 期愈合，眼睑皮肤面瘢痕呈线性，未见视力损伤及眼睑畸形愈合。

3.1. 感染对早期并发症的影响

对感染是否影响早期并发症进行分析，将 174 例分为“并发症组”(5 出血 + 30 水肿 + 2 瘀血，去重后约 35 例)和“无并发症组”，并发症的发生率为 20.1%，为探讨感染是否影响早期并发症，对其进行卡方检验。有感染史患儿 68 例，其中术后发生并发症 22 例(32.4%)；无感染史患儿 106 例，并发症 13 例(12.3%)，两组比较差异有统计学意义($\chi^2 = 6.7, P = 0.010$)，提示术前合并感染史者术后早期并发症风险显著升高(表 1)。

Table 1. The Relationship between a child's history of infection and complications
表 1. 患儿感染史与并发症关系

组别	例数	并发症组例数	无并发症组例数	χ^2	P 值
有感染史	68	22 (32.4%)	46 (67.6%)	6.7	0.010
无感染史	106	13 (12.3%)	93 (87.7%)		
合计	174	35 (20.1%)	139 (79.9%)		

P < 0.05 单因素方差分析。

3.2. 二次手术的影响因素分析

以是否二次手术(复发 = 1)为因变量(总复发 38 例)，将合并感染(有 vs 无)、病灶直径(>10 mm vs ≤10 mm)、年龄(>6 岁 vs ≤6 岁)及部位(下睑 vs 上睑)共 4 个变量作为自变量，采用 Enter 法进行二元 Logistic 回归分析。结果显示(表 2)，合并感染(OR = 3.2, 95% CI: 1.5~6.8, P = 0.002)和病灶直径 > 10 mm (OR = 2.8, 95% CI: 1.26~4, P = 0.015)是术后需二次手术复发的独立危险因素；年龄 > 6 岁(OR = 0.5, 95% CI: 0.3~0.9, P = 0.040)与复发风险降低显著相关，提示年龄 ≤ 6 岁的低龄患儿复发风险更高。而下睑与上睑相比，复发风险差异无统计学意义(OR = 0.7, 95% CI: 0.3~2.0, P = 0.517)。

Table 2. Analysis of factors affecting repeat surgery in pediatric patients
表 2. 患儿二次手术影响因素分析

变量	β 值	Wald χ^2	P 值	OR 值	95%置信区间
合并感染(参照 = 无感染)	1.163	9.45	0.002	3.2	1.5~6.8
病灶直径 > 10 mm (参照 ≤ 10 mm)	1.030	5.90	0.015	2.8	1.2~6.4
年龄大于 6 岁(参照 ≤ 6 岁)	-0.693	4.20	0.040	0.5	0.3~0.9
部位(参照 = 上睑)					
下睑 VS 上睑	-0.336	0.42	0.517	0.7	0.3~2.0
常量	-2.197	15.23	<0.001	0.11	——

注： β ，回归系数；Wald χ^2 ，瓦尔德卡方；OR，比值比；Hosmer-Lemeshow 拟合优度检验显示模型校准良好($\chi^2 = 3.87, P = 0.793$)，整体分类正确率为 85.6%。

4. 讨论

霰粒肿是特发性无菌性慢性肉芽肿性炎症。儿童睑板腺腺体分泌旺盛,增殖能力强,腺体又发育不全容易受外界侵袭,睑板腺及其周围组织炎症(慢性结膜炎、睑缘炎等)导致腺上皮过度角化,腺管阻塞,腺体分泌物潴留形成慢性肉芽肿炎症,故而是儿童眼科临床常见病。最近的研究表明,霰粒肿的发病率有所增加,和口罩佩戴有关[6]。儿童皮肤薄,严重的霰粒肿会侵及皮肤自行溃破,排出内容物而消退或形成肉芽肿,部分继发感染,部分自然愈合霰粒肿可遗留瘢痕,严重病例可造成眼睑畸形。此外,霰粒肿患儿眼部常充血,甚至可能因机械性上睑下垂和角膜散光而导致视力障碍[3]。针对霰粒肿的治疗方法繁多,尚未形成统一的治疗规范。

目前对于霰粒肿治疗包括保守治疗如局部抗生素眼药、热敷以及局部强脉冲光治疗,侵入性治疗如局部激素注射以及手术治疗[7]。较小的霰粒肿可采用抗生素滴眼液配合局部热敷治疗,较大的囊肿以及多发性霰粒肿则手术是首选的治疗方法。以往研究表明保守治疗的成功率范围从25%到87%不等[7]而保守治疗效果与患儿及家长依从性有关,多数患儿年幼,局部点药及热敷困难。既往研究表明,局部抗生素使用并不一定能增加保守治疗的成功率[8]。手术治疗能快速清除囊肿内容物及囊壁,使霰粒肿在术后数日至数周内明显消退,眼睑肿胀、疼痛等症状迅速缓解。本研究证实手术治疗霰粒肿具有高治愈率和安全可靠的特点。手术彻底清除内容物和破坏囊壁是根除病灶、防止复发的关键。经结膜面无皮肤瘢痕,适合睑结膜面型;经皮肤面适合囊肿较大且向皮肤面突出者,但需精细操作。本研究发现合并感染增加术后水肿出血风险,低龄和较大病灶以及合并感染的患儿更容易复发,病灶部位影响较小。此外,既往研究表明,囊壁残留、多发性囊肿未完全处理、术后护理不当[1]等情况亦会增加复发概率。

手术的治愈率相对突出,尤其针对单个、局限性霰粒肿效果显著。而霰粒肿患儿常合并蠕形螨感染,易发生睑板腺功能障碍以及睑缘炎,其霰粒肿发生率和复发频率较高,对于多发、复发性或合并睑缘炎的病例,治愈率可能会有所下降,需结合术后护理或辅助治疗[1]。总体而言,手术治疗是治疗霰粒肿高效、可靠的选择,有研究表明[9][10],霰粒肿手术不会导致睑板腺的损失。术后第一个月睑板腺损失与术前值无显著差,手术干预有利于防止睑板腺受损导致干眼症及眼睑畸形的发生。

本研究局限性在于单中心、回顾性设计、随访时间不够长、缺乏对照组(如保守治疗组或不同术式对比组)。

5. 结论

局部麻醉下手术刮除治疗儿童霰粒肿高效、安全,对于保守治疗无效、囊肿较大、多发性霰粒肿或有美观要求者,应积极推荐手术治疗。与保守治疗相比,手术疗效更优、复发率更低,但创伤相对较大,其疗效取决于病灶特征和手术操作的彻底性,需根据囊肿部位选择不同手术入路。合并感染患儿术后更易出血、眼睑水肿以及二次手术;低龄、病灶较大亦是霰粒肿复发的危险因素。

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