

丝裂霉素 C 应用于鼻内镜下鼻腔泪囊造孔术的临床观察

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Clinical observation of mitomycin C used in nasal endoscopic dacryocystorhinostomy

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Abstract

• **AIM:** To observe the clinical effect and safety of mitomycin C (MMC) applied to nasal endoscopic dacryocystorhinostomy for chronic dacryocystitis.

• **METHODS:** Selecting 297 patients (328 eyes) who were diagnosed as chronic dacryocystitis from July 2012 to June 2015 in our hospital, in which 266 patients were monocular and 31 were binocular. And then dividing them into two groups, 166 patients (166 eyes) in treatment group, and there were 162 patients (162 eyes) in control group. If the patient was binocular, each eye was selected in treatment group or control group randomly. The surgical procedures of nasal endoscopic dacryocystorhinostomy combined with nasolacrimal duct stent placement, were used in both groups, and MMC with the concentration of 0.2mg/mL was applied topically to the treatment group, while the control group was treated without MMC. All cases were followed up for 3 to 36mo, observed for clinical effect and safety.

• **RESULTS:** One hundred and twenty-one eyes were cured, 37 were improved and 8 were failed in the treatment group of 166 eyes, total effective rate was 95.18%. While in the control group, 103 eyes were cured, 36 were improved and 23 were failed in 162 eyes, total effective rate was 85.80%. The difference between the two groups was statistically significant ($P<0.05$).

• **CONCLUSION:** MMC applied to nasal endoscopic dacryocystorhinostomy for chronic dacryocystitis allows less tissue injury, effectively reduces cicatricial adhesion and hyperplasia of granulation tissue after operations on nasal cavity and enhance the success rate of the

operations, which is a simple, safe and effective treatment.

• **KEYWORDS:** mitomycin C; nasal dacryocystorhinostomy; chronic dacryocystitis

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摘要

目的:观察注射用丝裂霉素 C (MMC) 应用于鼻内镜下鼻腔泪囊造孔术治疗慢性泪囊炎的临床疗效及安全性。

方法:选取我院 2012-07/2015-06 确诊为慢性泪囊炎的患者 297 例 328 眼,其中单眼 266 例,双眼 31 例,随机分为治疗组 166 例 166 眼,对照组 162 例 162 眼(如为双眼患者,1 眼纳入治疗组,1 眼纳入对照组),均采用鼻内镜下鼻腔泪囊造孔联合鼻泪管引流支架置入的手术方式,治疗组局部应用 0.2mg/mL 丝裂霉素 C,对照组则不使用;术后随访 3~36mo,观察患者临床疗效及安全性。

结果:治疗组 166 眼,治愈 121 眼,好转 37 眼,无效 8 眼,总有效率 95.18%;对照组 162 眼,治愈 103 眼,好转 36 眼,无效 23 眼,总有效率 85.80%;两组之间的差异有统计学意义($P<0.05$)。

结论:丝裂霉素 C 应用于鼻内镜下鼻腔泪囊造孔术治疗慢性泪囊炎,组织损伤小,能有效减少术后造孔处瘢痕粘连及肉芽组织增生,提高手术成功率,是一种简便、安全、有效的治疗方式。

关键词:丝裂霉素 C;鼻腔泪囊造孔术;慢性泪囊炎
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0 引言

随着人们对安全和美学要求的日益提高,医学技术和设备日新月异,鼻内镜已得到广泛的应用和发展,具有微创效果的功能性鼻内镜下鼻腔泪囊造孔术已渐成为当今解决泪囊炎及泪道阻塞疾病的主流术式。术后确保造孔的通畅,避免肉芽增生、瘢痕牵缩、造孔狭窄闭锁是手术成功的关键^[1]。我院采用浸有 0.2mg/mL 丝裂霉素 C 棉片,放置于鼻腔泪囊造孔处,可有效抑制造孔处的肉芽及瘢痕增生,通畅泪道的引流,明显提高治疗的有效率。

1 对象和方法

1.1 对象 选取 2012-07/2015-06 我院确诊的慢性泪囊炎患者 297 例 328 眼,其中男 102 例 112 眼,女 195 例 216 眼,年龄 18~87(平均 58.2±0.6)岁;单眼 266 例,双眼 31 例;病程 3mo~18a,将其随机分成治疗组 166 例 166 眼和对照组 162 例 162 眼(如为双眼患者,1 眼纳入治疗组,

1 眼纳入对照组)。所选患者均无上下泪点、泪小管及泪总管的阻塞或狭窄。术前行常规鼻内镜检查,排除明显鼻息肉、鼻甲肥大、鼻中隔偏曲等鼻腔病变,术后随访 3~36mo。

1.2 方法

1.2.1 术前准备 完善血常规、血糖、凝血功能及心电图等相关全身检查,排除全身禁忌证,术前术眼结膜囊冲洗及手术侧鼻腔鼻毛剪除。

1.2.2 手术方法 (1)患者取仰卧位,下颌抬高 15°^[2],常规消毒铺巾。(2)0.2%利多卡因+0.75%布比卡因注射液等量混合+微量肾上腺素注射液共约 5mL 行术眼侧滑车、筛前及眶下神经阻滞麻醉,鼻腔放置丙美卡因滴眼液+肾上腺素注射液浸湿的棉片 3 次,每次放置时间 3min,以表面麻醉及收缩鼻腔黏膜。(3)在 0 度硬管内窥镜下,以钩突为后界,以中鼻甲前部附着处为上界,做弧形黏膜瓣,大小约 15mm×15mm,将黏膜瓣下翻并用上述棉片填压其上妥善保护,暴露上颌骨额突和泪骨前部骨质。咬骨钳向前咬除上颌骨额突,向后咬除泪骨前部,造骨孔上下径 15mm,前后径 10~12mm,暴露了泪囊内侧壁。(4)用泪小点扩张器扩张上泪小点开口,经上泪小点导入泪道探针,并向内顶起泪囊内侧壁,用钩刀尽量靠骨窗的前缘切开泪囊内侧壁,予生理盐水、妥布霉素及地塞米松注射液冲洗泪道。(5)治疗组采用浸有 0.2mg/mL 丝裂霉素 C (2mg 注射用丝裂霉素 C 粉针剂+10mL 生理盐水)小棉球,放置于鼻腔泪囊造孔处,作用时间 5min,不进行冲洗^[2];对照组则不使用。(6)经上泪小点导入带牵引钢丝的泪道探针,借助牵引钢丝置入鼻泪管引流支架于造孔处。(7)原鼻腔黏膜瓣复位贴于造孔周围,明胶海绵填塞于造孔周围并涂敷妥布霉素地塞米松眼膏,凡士林纱条填塞总鼻道,结束手术。

1.2.3 术后处理及随访 术后静滴抗生素+激素 3d,左氧氟沙星滴眼液滴眼;2d 取出填塞的凡士林纱条,1wk 后鼻内镜下鼻腔清理换药,用生理盐水及妥布霉素+地塞米松注射液行泪道冲洗,此后根据情况决定下一次鼻内镜复查时间;鼻用激素喷术侧鼻腔 1mo;术后 2~3mo 取出鼻泪管引流支架。术后随访 3~36mo。

疗效判断标准:根据郭庆东等疗效判断标准:(1)治愈:鼻内镜下检查鼻腔泪囊造孔形成,上皮化,溢泪、流脓等症状消失,冲洗泪道通畅。(2)好转:鼻内镜下检查鼻腔泪囊造孔形成,上皮化,症状减轻,冲洗泪道通畅或加压后通畅。(3)无效:仍然溢泪、流脓,冲洗泪道或加压后仍不通畅,鼻内镜下检查鼻腔泪囊造孔闭锁。(4)总有效率=治愈率+好转率^[3]。

统计学分析:本实验采用 SPSS 11.5 软件进行统计学分析,两组总有效率比较采用四格表 χ^2 检验,以 $P < 0.05$ 为差异有统计学意义。

2 结果

2.1 术后效果 所有患者均顺利完成手术,随访 3mo 时,治疗组 166 眼,治愈 121 眼,好转 37 眼,无效 8 眼,总有效率 95.18%;对照组 162 眼,治愈 103 眼,好转 36 眼,无效 23 眼,总有效率 85.80%;将两组总有效率进行比较分析,两组总有效率比较差异有统计学意义 ($\chi^2 = 8.43, P < 0.05$)。

2.2 术后并发症 (1)眼眶瘀斑肿胀:治疗组 3 眼 (1.81%),对照组 2 眼 (1.23%),嘱术后 24h 后热敷,1wk 后基本消退。(2)术后鼻腔出血:治疗组 4 眼 (2.41%),

对照组 4 眼 (2.47%),于内窥镜下找到鼻腔出血部位,行凡士林纱条填塞,可有效止血。(3)鼻腔黏膜局部粘连:治疗组 4 眼 (2.41%),对照组 3 眼 (1.85%),于鼻内镜下分离粘连,涂妥布霉素地塞米松眼膏,填塞凡士林纱条,1wk 复诊取出,粘连均解除。两组并发症的发生无统计学差异 ($P > 0.05$),两组随访结果中均无鼻黏膜坏死、萎缩、感染或鼻腔长期出血等不良反应及全身性并发症。

3 讨论

慢性泪囊炎为眼科常见病,主要由于鼻泪管阻塞、泪液滞留,细菌在泪囊内繁殖引起^[4],以女性为多。临床上患者主要症状为溢泪、眼分泌物增多,挤压泪囊区有黏液性或脓性分泌物自泪点溢出,易造成角结膜及眼睑皮肤的慢性炎症,并可引起泪囊周围组织红肿痛的急性泪囊炎发作,且为内眼手术的禁忌证,对患者的生活质量造成严重影响^[5]。治疗原则是控制泪囊炎症,恢复建立泪道、泪囊至鼻腔的引流通路。由于其非直接致盲性和传统治疗方法效果不甚理想,往往不被眼科医生所重视。治疗上以手术治疗为主,手术方法分为鼻外法(外路)及鼻内法(内路)。传统外路手术经面部泪囊区皮肤切口,术中损伤大,手术操作复杂,视野小,损伤内眦韧带及血管,遗留面部瘢痕,影响美容,目前逐渐被鼻内法所取代。鼻内镜下鼻腔泪囊造孔联合鼻泪管引流支架置入的鼻内手术方式是在鼻腔前部进行的,所以并发症的发生率维持在较低水平^[6],无颜面部瘢痕,无损伤内眦韧带的弊病,具有高效、安全、直观的特点,但后期骨窗肉芽增生出现闭塞性瘢痕是导致手术失败的最主要原因^[7],术中联合鼻泪管引流支架的置入亦导致其造口纤维肉芽组织生长活跃^[8]。术中准确定位泪囊、所开骨窗大小适宜、处理好泪囊、鼻腔黏膜瓣以及操作轻柔,勿造成医源性的泪点、泪管损伤,是手术成功的重要因素,而同时联合丝裂霉素 C 的应用可维持一定的骨窗面积,提高手术疗效^[9]。

MMC 是一种抗代谢药物,是由头状链霉菌发酵物滤液中分离出来的一种抗肿瘤抗生素,在组织中激活一种烷氧化物,与 DNA 的双螺旋形成交联,破坏 DNA 的结构和功能,对增殖期及静止期的细胞均有杀伤作用,从而阻止细胞分化和复制,阻止成纤维细胞产生胶原物质,是抑制成纤维细胞增生的强力抑制剂。1967 年丝裂霉素首次应用于翼状胬肉的手术治疗,如今其在眼科领域的临床应用日渐深入,如应用于青光眼滤过性手术、结膜睑球粘连矫正手术、角膜屈光手术及鼻内镜下鼻腔泪囊造孔术等,可有效抑制手术区的新生血管长入,抑制纤维细胞增生和瘢痕化,提高了手术的成功率。

然而丝裂霉素毒副作用较大,其对血管内皮细胞的损害可引起组织缺血、坏死,因此局部组织刺激较强,如使用不当可造成组织的坏死溶解等,属于有毒物品,毒性分级为剧毒。目前国际、国内对丝裂霉素 C 应用于眼科各类手术尚无统一标准,包括使用的适应证、禁忌证、作用浓度及作用时间等,特别是其应用于鼻内镜下鼻腔泪囊造孔术的时间及浓度目前有较大争议。

丝裂霉素 C 应用于鼻内镜下鼻腔泪囊造孔术时要规范操作,才能尽可能地减少对鼻腔黏膜的损伤,降低术后鼻腔粘连的并发症。需特别注意以下操作要点:(1)蘸取丝裂霉素 C 注射液的棉球大小要与造孔大小相匹配,干湿程度适宜,避免丝裂霉素侵及造孔以外的其它组织。(2)夹取浸有丝裂霉素注射液的小棉球从鼻外进入造孔

部位及作用时间结束取出时,勿触及鼻腔其他部位的黏膜,以免造成相应部位黏膜损伤。(3)夹取过浸有丝裂霉素注射液的小棉球的工具要避免与鼻内操作的其他器械接触,避免其上残留的丝裂霉素注射液造成鼻腔其他部位的组织损伤。

综上,在正确、规范使用的前提下,丝裂霉素C低浓度局部短时间应用是安全的,应用于鼻内镜下鼻腔泪囊造孔术治疗慢性泪囊炎,组织损伤小,能有效防止纤维细胞增生导致的造孔闭锁,提高了手术成功率,是一种简便、安全、有效的治疗方式。

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· 临床报告 ·

激光联合不同硅胶管植入治疗不同部位泪道阻塞的疗效

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Clinical analysis of laser therapy combined with different silicone tube implantation for lacrimal duct obstruction in different parts

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Abstract

- AIM: To observe the effect of laser therapy combined with disposable lacrimal recanalization catheter (RS model) or dilating lacrimal drainage tube (nasolacrimal canal) for lacrimal duct obstruction in different parts.
- METHODS: Form January 2011 to December 2013 in our hospital, 548 patients (657 eyes) with lacrimal duct obstruction were selected. In these patients, 236 patients

(298 eyes) with canalicular (or lacrimal duct) obstruction undergone KTP laser combined with RS model disposable lacrimal recanalization catheter; 312 patients (359 eyes) with nasolacrimal duct obstruction undergone KTP laser therapy combined with dilating lacrimal drainage tube. The irrigation of lacrimal passage was sustained. The ducts were removed at 3mo after operations. The condition of lacrimal passage irrigating and the self-reported epiphora at 3mo after tubes removed were taken as evaluating standard.

- RESULTS: There were 248 eyes with canalicular (or lacrimal duct) obstruction treated by KTP laser combined with RS duct cured, 33 eyes becoming better, 17 eyes ineffective; there were 301 eyes with nasolacrimal duct obstruction treated by KTP laser combined with dilating lacrimal drainage tube cured, 19 eyes becoming better, 39 eyes ineffective. The total efficiency rate was 91.5%.

- CONCLUSION: Patients with lacrimal passage obstruction should be treated with individualized therapy. Laser therapy combined with different silicone tube implantation for lacrimal duct obstruction in different parts is effective and can be used as the preferred method for patient with lacrimal passage obstruction in primary hospital.

- KEYWORDS: KTP laser; lacrimal duct obstruction; silicone tube implantation

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