Endoscopic endonasal dacryocyst-nasal drainage combined with lacrimal passage reconstruction for the treatment of acute dacryocystitis

Li-Ping Shi, Hong-Zhuang Ouyang, Min Dai, Lin Chen, Tao-Long Chen

Aim: To investigate the feasibility of endoscopic endonasal dacryocyst-nasal drainage combined with lacrimal passage reconstruction for the treatment of acute dacryocystitis.

Methods: All 156 patients with unilateral acute dacryocystitis, who were treated with endoscopic endonasal dacryocyst-nasal drainage combined with lacrimal passage reconstruction were retrospected. Preoperative and postoperative routine systemic antibiotics was used to control infection.

Results: The patients were followed up for 6-18 months, complete data were acquired from 147 patients. The acute inflammations were resolved within 2 days after operation in all patients, with no abnormal findings in the routine blood test before being discharged. The lacrimal passages were successfully reconstructed in 145 patients, failed in 2 patients.

Conclusion: Endoscopic endonasal dacryocyst-nasal drainage combined with lacrimal passage reconstruction seems to be an effective and safe management for the primary treatment of acute dacryocystitis.

Key words: nasal endoscope; dacryocyst-nasal drainage; acute dacryocystitis


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急性泪囊炎164例，男21例，女143例。均为单眼发病，年龄19～85岁（平均51.4±14.7岁）,右眼44例，左眼85例。入院时均表现为流泪、眼红、痛，部分患者伴体温升高。97例白细胞总数全血细胞检查正常，59例白细胞数目正常。17例有皮肤切开引流手术史，有鼻腔泪囊吻合手术史5例。

1.2 方法
入院后做好手术前准备，做鼻腔检查排除鼻腔疾病，待体温正常无全身症状时即可手术治疗。术前30min常规静滴2.0g头孢他啶预防感染。术前采用优尔凯因滴眼腺膜表面麻醉，麻醉效果可因患者眼部情况而异，术前1h滴药，中下鼻甲前端及鼻中隔表面麻醉，20g/L利多卡因注射液做额前神经浸润麻醉。在内窥镜卜下用中鼻甲前端侧鼻中隔切除术，“”形鼻泪管切开，将鼻泪管分离开并推向中鼻道，暴露骨面，用电钻或咬骨器钻在骨面的骨上切长约6mm×8mm大小骨孔，暴露泪囊的内侧壁，探针自上泪点向泪囊定位泪囊，中鼻甲内侧壁作“”形瓣与鼻侧瓣对称相贴，使铁夹固定两瓣，形成向鼻腔开放的泪囊内侧壁造孔，引流泪总管及泪囊周围脓液，毕术。术后常规抗感染治疗5～7d，不点眼抗生素滴眼液，10ml/次。换滴液后点鼻酸，鼻内窥镜下清理鼻腔内纤维增殖物及血痂，常规盐水冲洗。术后5～7d复查血常规。手术后3d行鼻腔换药。术后15～30d复查，观察泪囊，鼻腔，吻合口，泪道功能恢复情况，6mo电话回访，将结果与我们查阅的以传统方法治疗急性泪囊炎的病例资料进行比较。

统计学分析：采用统计学软件SPSS13.0，采用卡方检验，P<0.05为差异有统计学意义。

2 结果
疗效评定标准：治愈：无溢泪，冲洗泪道通畅，泪囊区炎症、血性均恢复正常。好转：从泪减，冲洗泪道通畅，泪囊区炎症消退，血性恢复正常。无效：仍溢泪或分泌物，冲洗不通或有脓，泪囊区炎症不能控制或再出现炎症反应或白细胞数大于10×10^9/L。治愈和好转均视为成功。随访6～18mo,失访9例，有效病例147例，11例仍有溢泪，故手术前换药，冲洗泪道上下泪点，冲洗液部分上下泪管互为反流，部分人咽，2例仍有泪液分泌物，泪道冲洗上下泪点互为反流伴脓，治愈145例，成功率98.6%。156例中有1例手术后发生败血症，骨髓炎，感染扩散等并发症，所有患者手术后3～5d泪囊区炎症得到控制，出院时血性常规均恢复正常。查阅我院2000年以前传统方法治疗的急性泪囊炎的病例资料，其中仍可随访的51例，有效病例45例，无效6例，两组资料经χ²检验，χ²=10.571，P=0.001，两者有明显统计学差异(表1)。

3 讨论
急性泪囊炎是由于毒力强的细菌如链球菌合并肺炎球菌等感染所致。多为慢性泪囊炎的急性发作，发作时泪囊管阻塞，泪小管因脓肿而狭窄或阻塞，泪囊内储存大量的脓毒性液体，向周围扩散形成泪囊周围脓肿，进一步扩散到泪囊周围组织形成泪囊周围蜂窝组织炎，数日后炎症炎症向外扩散形成皮肤瘘管。传统的治疗方法一般需全身应用抗生素15～30d,待急性炎症过后1.5～3mo后行鼻腔泪囊吻合术[2]，行皮肤，皮下组织切口，咬除泪囊内侧壁有炎症扩散的趋势，炎症消退后在急性期行鼻腔泪囊吻合术[2]。因为存在急性感染或使感染扩散和发生败血症的风险，尽管术前使用抗生素，但是Coden等报道急性期外路泪囊泪道手术后有8%患者皮肤切口感染[3]。急性泪囊炎患者大年龄较大，体质较差，即使经过一段时间的抗生素治疗，炎症得到控制，往往难以耐受较大手术而不得不行泪囊摘除，传统治疗方法治疗周期长，手术创伤大，术后面部肿大，泪道功能难以恢复等缺点严重的影响了急性泪囊炎的治疗效果，随着内窥镜技术在泪道疾病中的应用，其优点逐渐体现，相对传统的外路引流去控制感染，我们能否行鼻腔内引流去控制感染呢？内引流会不会导致感染扩散呢？我们查阅了内镜手术，慢性鼻窦炎急性发作可行鼻内镜内引流术[4]，为我们提供了内镜下鼻内引流手术治疗急性泪囊炎的理论依据。炎症扩散主要是位于泪囊壶及泪管附近的软性胶样组织，因此在治疗巩膜上中线组织限制性内引流术时，说明了鼻内窥镜下鼻腔泪囊吻合术治疗急性泪囊炎的可行性。手术中我们也有发现区域组织有明显炎症反应，说明了鼻内引流术的安全性[4]。术中切开泪囊后泪囊中的脓液并不太多，急性泪囊炎患者因为泪小管肿胀而狭窄或阻塞，炎症主要位于皮下组织、泪囊前方周围组织及泪总管周围，此实为急性泪囊炎患者禁止在急性期行鼻腔泪囊吻合术的原因，而泪囊本身的炎症并不严重，手术中一定要注意引流通泪总管及泪囊周围的脓液。术中做好骨孔后泪囊周围腔隙已与鼻腔通连，形成良好的引流，手术后泪囊周围的炎症也会得到很好的控制。在急性泪囊炎的急性期行内镜引流术的主要目的就是控制泪囊及周围区域组织，手术后3～5d血性均恢复正常即说明了这一点。术前30min静滴有效抗生素为防止感染扩散提供了一步的保障，鼻腔内引流较皮质切开外引泪液更彻底，更有效，术后3d泪囊区炎症即可基本控制，部分患者第2d泪囊区炎症仍可控制的，其效应比外引流更好，病程更短，鼻腔内引流较外引流更符合泪囊内炎症引流的生理。急性泪囊炎患者泪小管因脓肿而狭窄或阻塞，探针往往不能进入泪小管，我们手术中发现大部分患者的上泪小管是可以通过探针来探的，我们探针向泪囊寻找泪囊，探针切均不能进入上下泪小管，则需要手术医生有很好的经验去寻找和识别泪囊，在泪腺和泪总管部选一个窗口寻找泪腺。由于造口的持续引流迅速缓解疼痛，并且造口后泪腺的无氧环境转变为有氧环境，这些因素都有利于感染的控制[5]。急性泪囊炎的患者泪囊一般较大，手术后泪囊造孔形成慢性泪囊炎更好，成功率更高的原因可能在此，泪腺病变的治疗成功率比我国同期在En-DCR治的慢性泪囊炎的治愈率97.9%[1]更高。6～18mo后患者来院复查，鼻腔造孔形成良好，部分患者鼻腔造孔

表1 内引流治疗组与传统治疗方法对照组（例）

<table>
<thead>
<tr>
<th></th>
<th>内引流治疗组</th>
<th>传统治疗方法组</th>
<th>合计</th>
</tr>
</thead>
<tbody>
<tr>
<td>有效</td>
<td>145(98.6%)</td>
<td>2(1.4%)</td>
<td>147</td>
</tr>
<tr>
<td>无效</td>
<td>45(88.2%)</td>
<td>6(11.8%)</td>
<td>51</td>
</tr>
<tr>
<td>合计</td>
<td>190(96.0%)</td>
<td>8(4.0%)</td>
<td>198</td>
</tr>
</tbody>
</table>
成裂隙状，但患者无溢泪、溢脓，说明泪管阻塞在手术得到了良好的解决。2 例无效病例在随诊时表现为慢性泪囊炎，按慢性泪囊炎的治疗原则行 En-DCR 治疗，现随访都已超过了 9mo，泪道功能均恢复正常。内窥镜下良好的照明和显像屏 16 倍放大，使手术成为了可视显微手术，手术的创伤更小，手术时间短，恢复快，对年老体弱的患者一样具有良好的手术适应证，我们的这组患者中有十多例 80 高龄的患者既说明了这点。术后嘱咐患者多滴抗生素眼药水，以保持对泪囊的冲洗作用。而术后组织瘢痕收缩粘连也易出现吻合口闭合[12,13]，术后常规清理鼻腔纤维增殖物以防止吻合口膜性闭塞，如患者全身症状明显，体温高，则需控制炎症后再手术，以防止败血症的发生。本组病例的患者平均住院时间为 6.93d，相比传统的急性泪囊炎的治疗方法大大的缩短了患者的住院时间，而且无 1 例手术后发生败血症、骨髓炎、感染扩散等并发症，说明了此手术的安全性。我们收集的 156 例患者中有 17 例入院时皮肤已溃破或在外院行皮肤外引流的患者，其中 14 例在 1.5mo 来院复查时，面部瘢痕已几乎消失，3 例患者在 6mo 复查时面部仍有可视瘢痕（此 3 例患者在行内窥镜下鼻腔内引流术治疗前均有过在其他医院行皮肤穿刺外引流的病史，这也从侧面说明了皮肤外引流对面部容貌的影响），5 例有鼻腔泪囊吻合术面部可见手术瘢痕，134 例患者面部无手术瘢痕。

我们认为内窥镜下鼻腔内引流术治疗各期急性泪囊炎可能有效的，快速的控制泪囊及周围的炎症，同期行泪道重建后，成功率高、创伤小、恢复快、面部无瘢痕，适用于各年龄段的患者，可同期处理鼻腔疾病，手术是安全的，手术中，手术后不会发生明显并发症。在我们集团多家医院已得到证实并广泛推广，现在可以在全国推广使用。

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