

# 穿透性角膜移植术后干眼的分析

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**【摘要】** 目的 探讨穿透性角膜移植术后泪液的变化情况。方法 穿透性角膜移植术 25 例 (25 眼),以自体健眼作为对照组。分别于术前 3 天,术后 1 周、1 个月、3 个月及 6 个月行干眼调查问卷、泪膜破裂时间 (BUT)、基础泪液分泌试验 (SIt)、角膜荧光素染色 (FL) 检查,对两组指标进行比较。结果 术眼组术后各时间点干眼症状评分、FL 评分均明显高于术前 ( $P=0.029, P=0.018$ ),术眼组术后各时间点干眼症状、FL 评分重于健眼组 ( $P=0.013, P=0.006$ )。术后各时间点 BUT 较术前均缩短 ( $P=0.036$ )。术眼组术后各时间点 BUT 值短于健眼组 ( $P=0.017$ )。术眼组术后 1 周 SIt 值增加,术后 6 个月时低于术前水平,与术前相比差异均无统计学意义 ( $P>0.05$ )。结论 了解穿透性角膜移植术后泪膜的变化规律对术后合理用药和视功能恢复有重要的临床意义。

**【关键词】** 角膜移植术;穿透性;干眼;泪膜。

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**【Abstract】 Objective** To study postoperative tear changes after penetrating keratoplasty. **Methods** Penetrating keratoplasty was done in 25 cases (25 eyes), with the healthy eye served as a control group. Dry eye questionnaire, tear break-up time (BUT), basal tear secretion test (SIt), corneal fluorescein staining (FL) examination were observed 3 days before surgery, and 1 week, 1 month, 3 months and 6 months after surgery. Comparison was done between the two groups. **Results** At each time point after operation, dry eye symptom score, FL score were significantly higher than that before operation ( $P=0.029, P=0.018$ ). And the symptoms of dry eye and FL score was higher in the surgery group than that in the control group at each timpoint ( $P=0.013, P=0.006$ ). At each time point after operation, the BUT was shorter than that before operation ( $P=0.036$ ), the BUT in surgery group was shorter than the control group ( $P=0.017$ ). The SIt values increased in the surgery group one week postoperatively. It was lower than the preoperative level in 6 months, but the difference were not statistically significant compared with preoperative one ( $P>0.05$ ). **Conclusion** Understanding tear film changes after penetrating keratoplasty has important clinical significance on postoperative rational medicine treatment and recovery of visual function.

**【Key words】** Keratoplasty, penetrating; Dry eye; Tear film

穿透性角膜移植术 (penetrating keratoplasty, PK) 术后部分患者泪膜的稳定性和眼表结构受到一定影响,而泪膜功能异常是导致干眼的重要原因。本文将对穿透性角膜移植术后泪膜的变化规律进行观察,了解穿透性角膜移植手术对泪膜功能的影响。

## 1 资料与方法

### 1.1 一般资料

2010 年 5 月至 2011 年 5 月天津市第一中心医

院眼科穿透性角膜移植术 25 例 (25 眼)。男 17 例,女 8 例。年龄 19 ~ 79 岁,平均 (61.50 ± 6.42) 岁。圆锥角膜 6 例 6 眼;单纯性角膜白斑 10 例;粘连性角膜白斑 1 例;颗粒性角膜营养不良 4 例;真菌性角膜溃疡 2 例;大泡性角膜病变 1 例。所有患者以健眼 (自体对侧眼) 作为对照比较。所有患者术前排除热烧伤和化学伤病史,无其他系统性疾病、自身免疫性疾病或结缔组织病,无眼部及全身药物使用史。检查前所有患者均了解该研究并签署知情同意书。

### 1.2 方法

1.2.1 手术方法:均采用健康人的新鲜尸眼,供体年龄 18 ~ 42 岁。全眼球消毒处理后 4 ℃ 冰箱湿房