Combination of transepithelial phototherapeutic keratectomy and autologous serum eyedrops for treatment of recurrent corneal erosions.

PURPOSE: To evaluate the clinical outcomes after transepithelial phototherapeutic keratectomy (t-PTK) using an excimer laser and postoperative administration of autologous serum eyedrops.

SETTING: Department of Ophthalmology, Ruprecht-Karls-University of Heidelberg, Heidelberg, Germany.

METHODS: Twenty-five eyes of 25 patients with 3 to 12 recurrent corneal erosions were treated with t-PTK using the Schwind Keratom broad-beam excimer laser (Schwind). Routine therapy consisted of 2 pulses x 40 pulses (18.82 +/- 2.56 mum ablation). Postoperatively, autologous serum eyedrops were administered 6 times a day for 6 weeks. Postoperative outcomes and rate of recurrent erosions were evaluated.

RESULTS: The median of the follow-up after t-PTK was 15.5 months (range 6 to 20 months), and the mean age of the patients was 40.6 years +/- 12.0 (SD). Twenty of 25 eyes (80%) recovered without further corneal erosion. Five eyes had 1 further erosion, which was treatable in 4 cases with autologous serum eyedrops without additional excimer laser treatment. One patient requested additional t-PTK treatment and recovered without further complications thereafter.

CONCLUSIONS: Transepithelial phototherapeutic keratectomy is a safe and effective therapy for
recurrent corneal erosions. Additional treatment with autologous serum eyedrops can support the healing process following corneal erosions and t-PTK and can be given as a long-term artificial tear treatment.