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DOES THE USE OF PRE-CUT DMEK/LAMEK FROM THE TISSUE BANK REDUCE THE RE-TRANSPLANTATION RATE?

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SUMMARY

Purpose: The development of Descemet membrane endothelial keratoplasty (DMEK) is one of the most important innovations in ophthalmology of the past decade. The lamellae were and are mainly prepared directly in the operating room. The use of pre-cut corneal transplants from tissue banks additionally contributes to the safe performance of DMEK. However, the question arises whether such preparation could have an influence on the clinical outcome of DMEK. **Method:** Since December 2015, the DGFG holds the approval of the Paul-Ehrlich-Institut for allocation of pre-cut lamellar transplants for DMEK (LaMEK). In the meantime, more than 500 LaMEK were delivered for transplantation. A comparison of the re-registration numbers of patients for re-transplantation according to DMEK/LaMEK can provide information about the success of the procedure when using pre-cut transplants. **Results:** Compared to 2015 with transplants prepared exclusively in the operating room, in 2016/2017, with the pre-prepared LaMEK, a clearly smaller number of re-enrollment patients were reported in four transplantation centers. In 2015, 22 patients from a total of 204 DMEKs with in OR-prepared lamellae had to be transplanted again (MW 10.8% re-transplantation rate). During the reference period 2016 to autumn 2017, these were only six patients (MW 4.1%) in the same centers after 147 transplants of the LaMEK. **Conclusions:** With the introduction of pre-cut corneal transplants for DMEK, the technique for the surgeon has significantly simplified, since a preparation risk is excluded and time and costs in the OR are reduced. In addition, use of LaMEK also seems to reduce the risk of re-operation for the patient.