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Successful Treatment of the Paralyzed Lower Eyelid Due to Hansen's Disease by Implanting Auricular Cartilage

TO THE EDITOR:

We performed auto-auricular cartilage implants into the paralyzed lower eyelids of some former Hansen's disease patients, who live in our National Sanatorium, in order to improve upon the conditions of lagophthalmos and/or ectropion, due to facial nerve paresis. Sixty-nine eyelids of 50 patients: 34 men and 16 women, from 48 to 88 years of age (74-year-old average) were operated on during a 4½ year period from November 1996 to April 2001. They had complained of eye pain and dryness, spilling out of tears (epiphorea), complications in the treatment of corneal wounds, and ill-fitting artificial eyeballs caused by their lagophthalmos and/or ectropion.

Their facial paresis had persisted over a long period of up to 40 years or more. Some patients had already received another operative procedure, such as partial eyelid suturing or fascial implantation into the eyelids. They may have had some temporary improvement, but the effect could not be maintained.

Some of the skin conditions to be considered were that ex-lepromatous or borderline lepromatous patients' facial skin had suffered atrophic changes or scar formation during the healing process of their leproma. Their tarsus had often shrunk, functioning inadequately as the supporting structure of the free edge of the eyelid. In addition, drooping of the eyelid had become worse due to senile changes in the skin's elasticity. On the other hand, none of their ears had suffered deformity, making them a good source for the resection of cartilage to be used for implantation.

The operative procedure is as follows:

1. The procedure is performed under local anesthesia. One percent lidocaine with 1:100,000 epinephrine is injected into the area where the incision is made: the lower eyelid and both sides of the medial and lateral angle of the eye, as well as the scaphoid fossa on the corresponding ear.

2. Skin incision (Figs. 1–5): The incision at the medial and lateral palpebral angle is required to be deep enough to reach the ligaments which are tightly bound to the orbital bones (Figs. 1–4). The incision of the lower eyelid is made about 5 mm below the bottom eyelash and undermined at the depth of the tarsus; which was frequently obscure in our cases likely due to leproma,