

ACTA MEDICA IRANICA

Vol. XXI. 1978, P. 210-220

**The Use of Nasal Septum Chondromucosal Grafts In Reconstruction
of The Lower Lid and Cheek.**

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Virtually all lesions found on the skin of the face can also be found on the eyelids. Basal cell epitheliomas and squamous cell carcinomas are the most frequent cancers observed. In the lower eyelid the most common malignancy is the basal cell carcinoma. The preferred treatment of this neoplasm is by wide local excision. Numerous methods of lower lid reconstruction following such excisions are described by Fox, Mc Coy, and Mustards. We have used the Millard technique of employing the nasal septal chondromucosal graft. The purpose of this paper is to present our successful experience with this method.

Technique

The affected sector of the lower lid is excised totally. The excised tissue includes tarsus and conjunctiva. A margin of more than 10 mm of unaffected tissue must be excised

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with the tumor to prevent recurrence. Nasal septum cartilage is removed to replace tarsus. The technique for removal of nasal septum is the same as that the technique used for septal deviation except that on one side the mucosal layer remains attached to the cartilage. The cartilage of the septal graft should be trimmed to about 1 mm thickness and a margin of mucosa about 1 mm in excess of the cartilage should be left around its periphery. This is sutured into the lower lid defect in layers. The overlying skin defect is closed with either an advancement flap or midline forehead flap. The flap edges of nasal septum are sutured to conjunctiva and to the mucosa along the free margin to form a new lid margin. Lower lid eyelashes are not reconstructed.

Cases

Case 1. A 60 year old male was admitted with a low eye - lid basal cell carcinoma. Two thirds of the outer part of the lower eyelid and a portion of the cheek was excised. Septal chondral mucosal graft and cheek advancement flap were used for closure of the defect. Figures 1, 2, 3.

Case 2. A 40 year old man with a basal cell carcinoma of the left lower lid and cheek underwent excision. A 2.5 x 1 cm graft of nasal septum bearing both cartilage and mucosa on one side was used for reconstructing of the eyelid. The skin defect was covered by a cheek advancement flap. Figures 4,5.

Case 3. A 50 year old woman with a 3 year history of basal cell carcinoma involving the outer three quarters of the right lower lid and cheek underwent an excision of the affected lid. using nasal septal graft and a large cheek advancement flap for closure of the defect. Figures 6, 7,

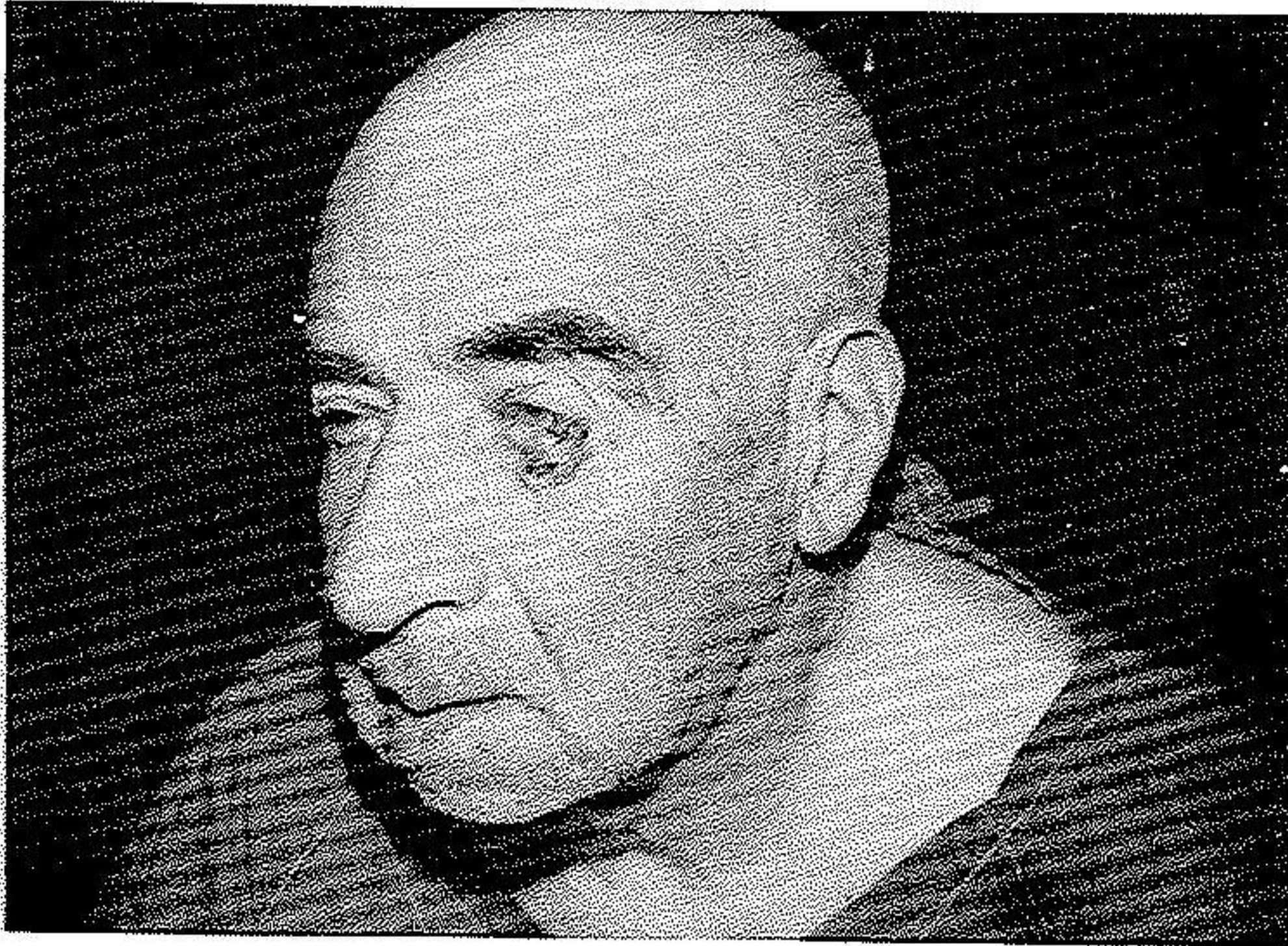


Figure 1. Case 1. Before treatment.



Figure 2. Case 1. One year after treatment.



Figure 3. Case 1. Functioning eye closure one year post operation.

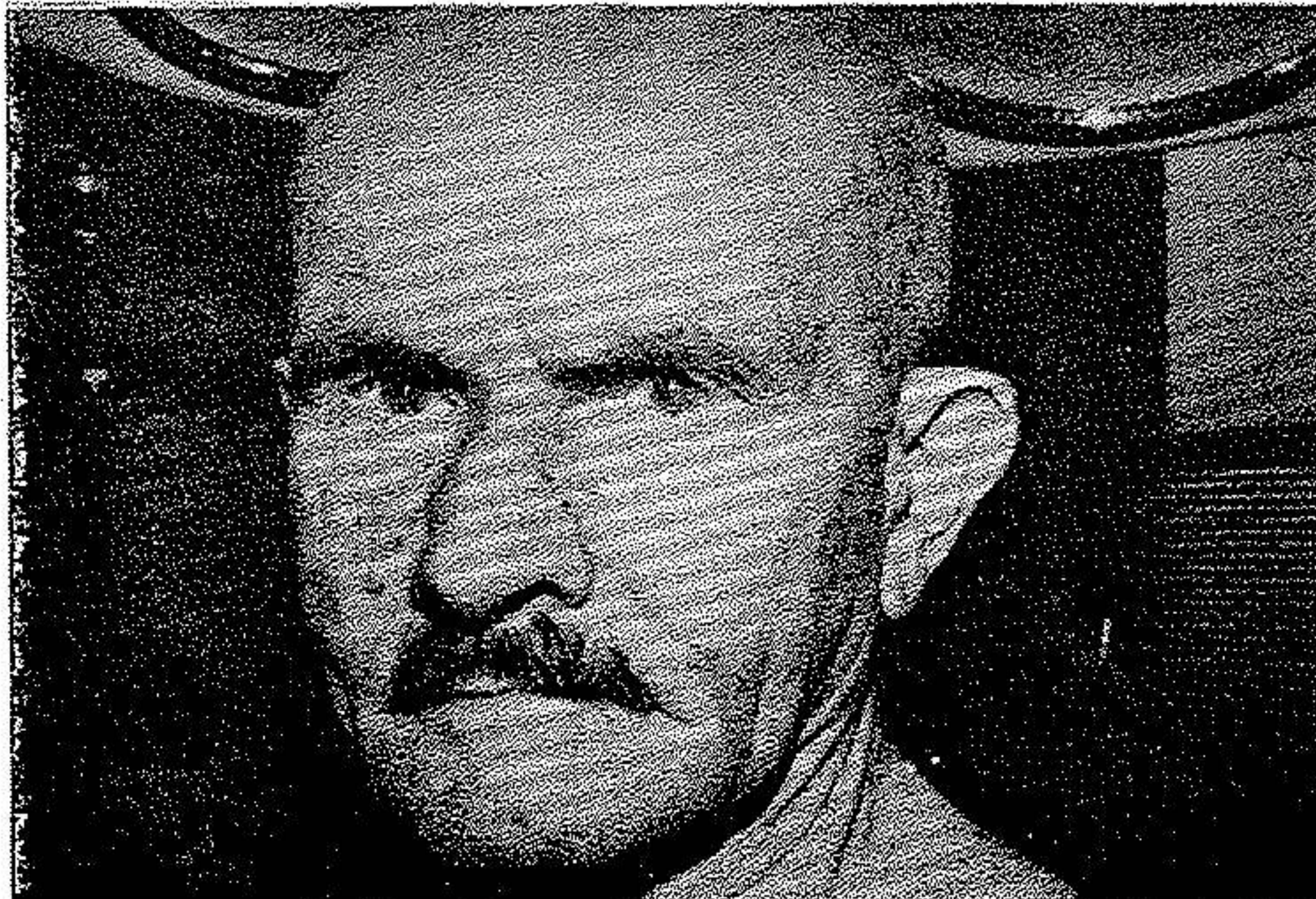


Figure 4. Case 2. Before treatment.



Figure 5. Case 2. Eight days post operation.



Figure 6. Case 3. Patient before excision.



Figure 7. Case 3. Two months after healing.

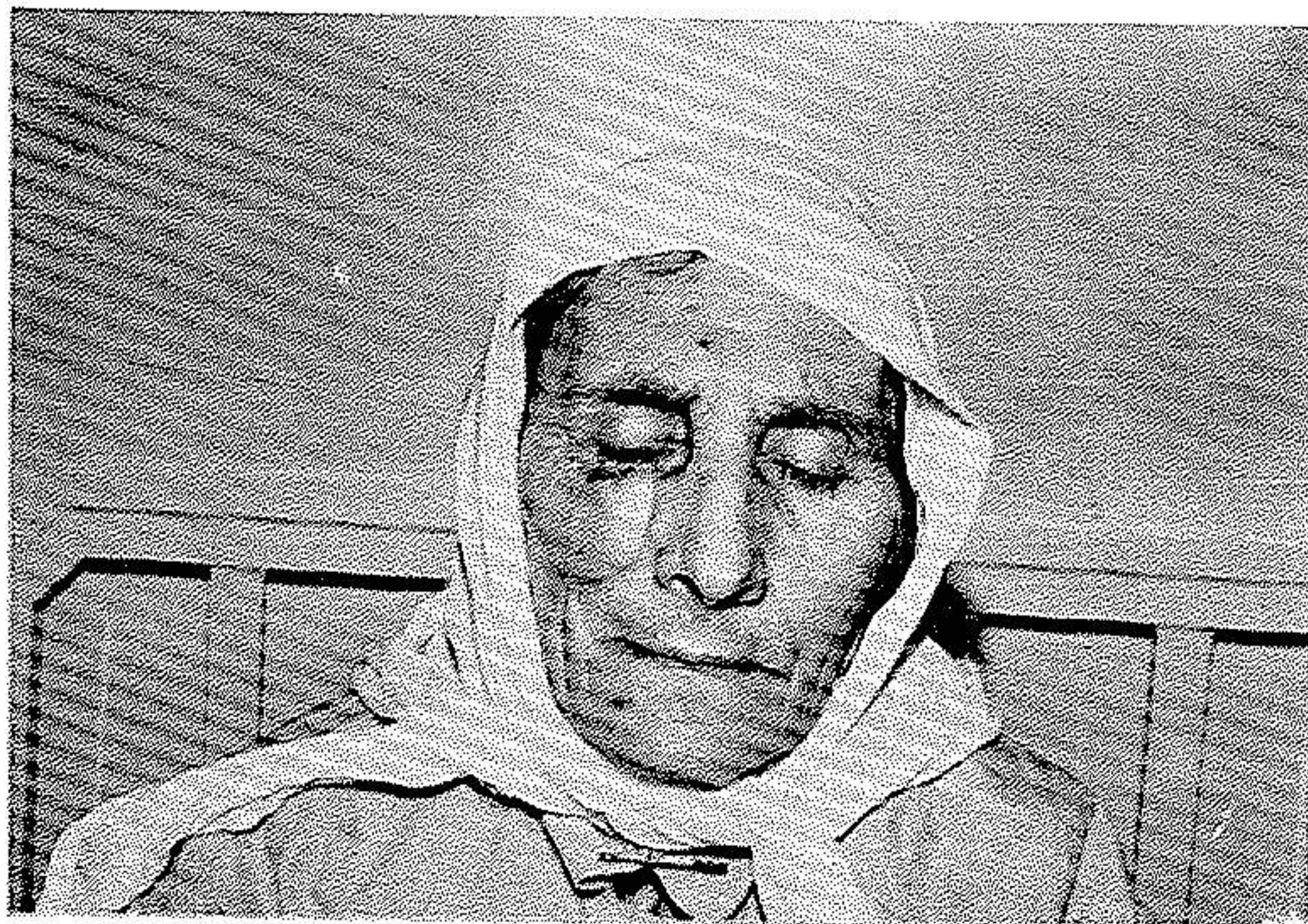


Figure 8. Case 3. Eye closure satisfactory without ectropion.

8.

Case 4. A 45 year old male had received radiotherapy 3 years previously for a proven basal cell carcinoma and presented with a recurrence of the lesion. One half of the left lower lid together with adjacent involved cheek were excised and nasal septum and midline forehead flap were used for reconstruction. Figure 9, 10.

Case 5. A 35 year old woman with a recurrent basal cell carcinoma, which had been treated by radiation therapy 3 years prior to admission, underwent excision of one third of the inner part of the right lower lid along with the adjacent upper lid with reconstruction achieved with nasal septal chondral mucosal graft and advancement flap. Figure 11, 12.

Discussion

A reconstructed lower lid must have a mucosal lining if the eye maintains sight. It also must have rigidity and must have an overlying skin cover. Lining and rigidity can be provided by the use of a free composite graft of mucosa and cartilage taken from the nasal septum according to the method of Millard. The available combination of mucosa and cartilage makes the septal grafts superior to the cartilage graft from the ear concha (Haggerty) which lacks a suitable inner surface to be placed against the eyeball. The necessity to preserve enough local conjunctiva to secure such a lining naturally compromises the proper freedom of excision of the lower lid vital to extirpating the tumor and is especially indicated in the cases of cheek-lid tumors which are presented here. Other advantages of the Millard procedure include the fact that, depending on the mode of overlying skin cover. The procedure can be completed in single stage without the interfering with vision - or eye -

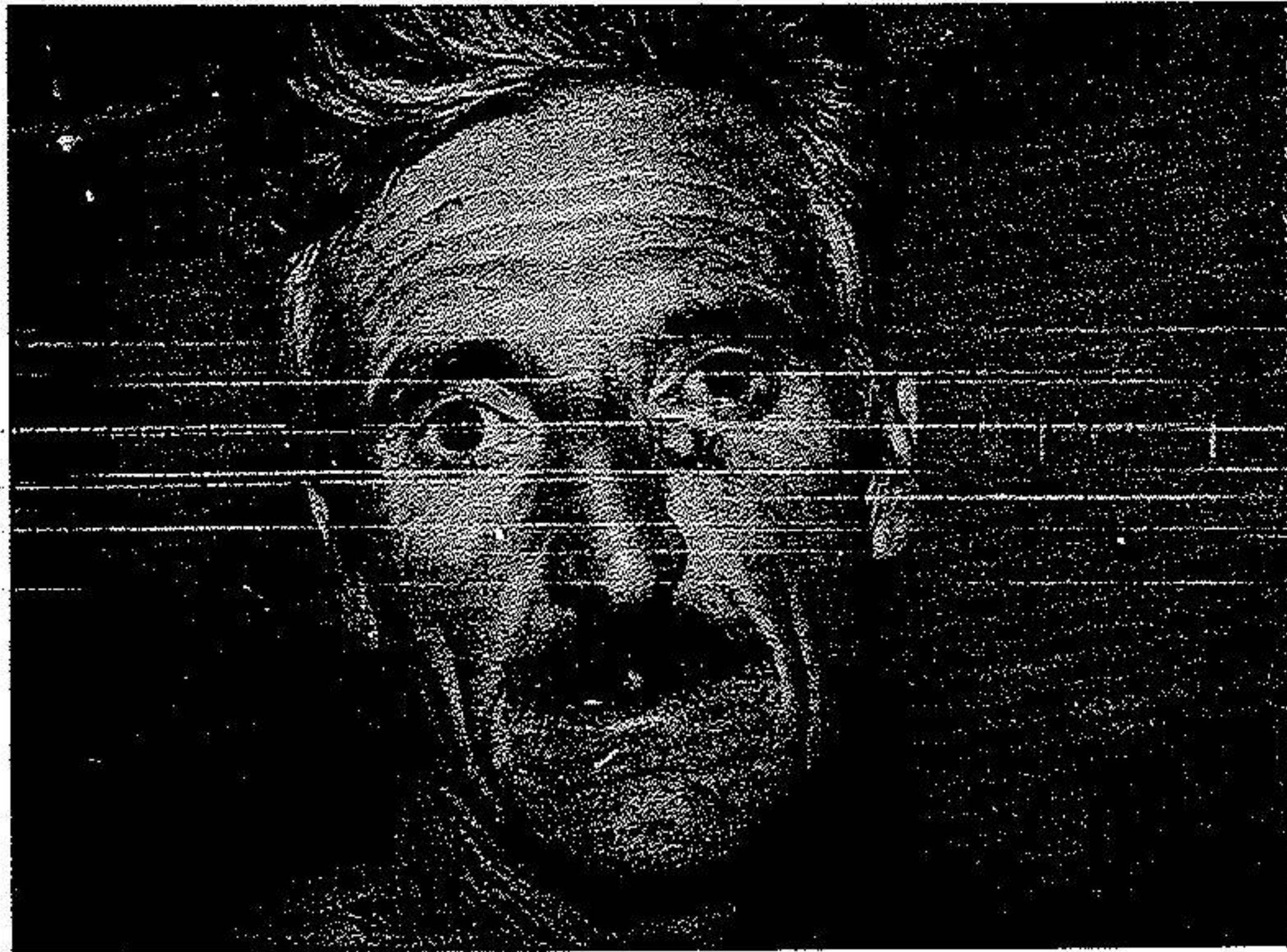


Figure 9. Case 4. Eye closure satisfactory without ectropion.

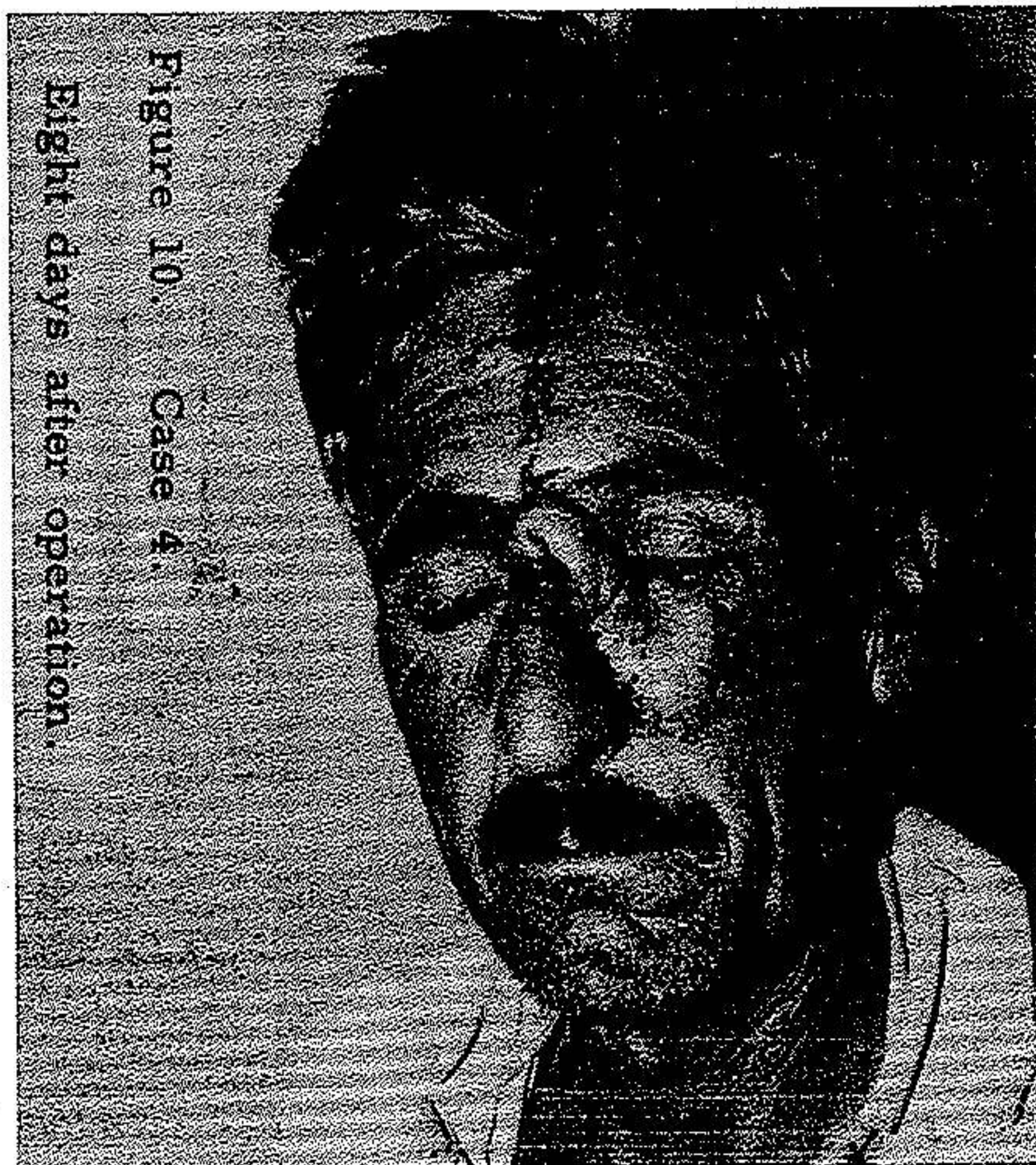




Figure 11. Case 5. Before treatment.

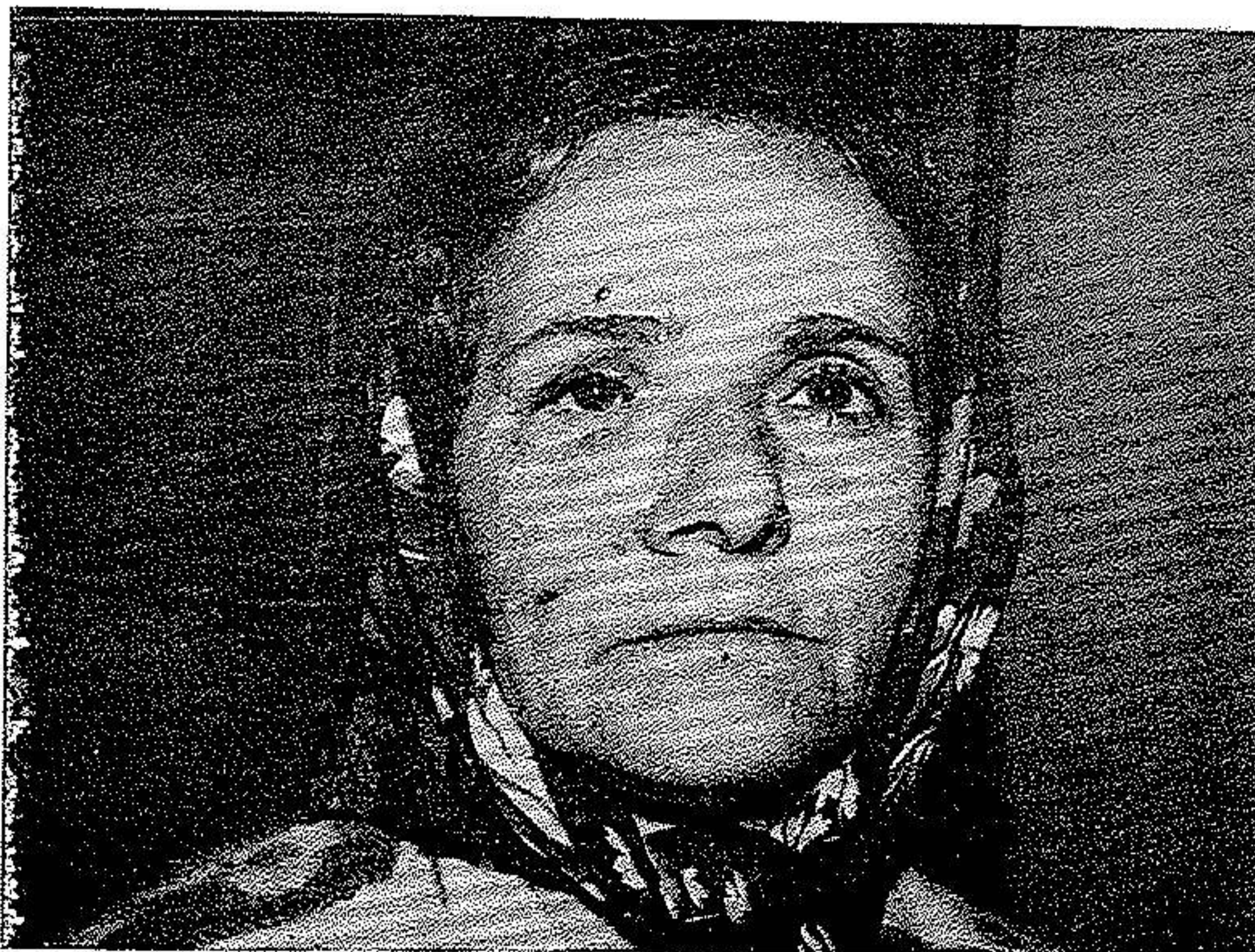


Figure 12. Case 5. Twenty one days after operation.

ball - occurs lid adhesions as in the methods of Hughes or Hueston. The desirability of a single procedure is important in the population of developing countries unaccustomed to and unwilling to make repeated visits to a clinic from an outlying rural area. The advantages of leaving both eyes open is also significant since this condition is often found in the elderly who may already have deficient vision or in working people who require complete vision for good functioning.

Summary

Five cases of extensive lid-cheek basal cell carcinomas are presented. Treatment was by wide excision followed by immediate reconstruction using the nasal septal chondral mucosal graft technique of Millard. The advantages of this procedure in an elderly, rural population of working people over other modes of reconstruction are noted. The success of this procedure recommends its wider application.

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