



**1977**  
YEAR BOOK OF  
**PLASTIC AND  
RECONSTRUCTIVE  
SURGERY**



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The YEAR BOOK

# Plastic and Reconstructive Surgery

1977

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# Table of Contents

The material covered in this volume represents literature reviewed up to July, 1976.

<b>Questions for Clinicians</b>	<b>9</b>
<b>Congenital Anomalies</b>	<b>13</b>
Cleft Lip and Palate	13
Facial and Cranial Anomalies	25
Anomalies of Trunk and Extremities	34
Anomalies of Genitalia	38
<b>Neoplastic, Inflammatory and Degenerative Diseases</b>	<b>45</b>
Cutaneous	45
Head and Neck	52
Salivary Glands	83
Trunk	87
Extremities	100
General	110
<b>Trauma</b>	<b>115</b>
Head and Neck	115
Hand	151
Trunk and Extremities	178
Burns	189
Shock and Metabolic Management	234
Wound Healing	244
<b>Esthetic Surgery</b>	<b>273</b>
Skin, Subcutaneous Tissue and Hair	273
Eye	285
Nose	296
Neck	305
Thorax	307
Abdomen	324
General	327
<b>Grafts and Transplantation</b>	<b>337</b>
<b>General Topics</b>	<b>369</b>





## Questions for Clinicians

1. What are the factors leading to ischemia and intrinsic muscle contractures in burns of the upper extremities? (p. 232)
2. What age group of patients is best suited for groin flap transfer to the foot and ankle? (p. 184)
3. What autogenous tissue is available for arthroplasty in painful arthrosis of finger joints? (p. 174)
4. Is the work of Thompson et al. on functional free muscle transplants supported by recent experiments in dogs? (p. 182)
5. Describe two methods of restoring symmetry in a patient with aplastic breast on one side and mammary hypertrophy on the other. (p. 34)
6. Discuss the surgical treatment of axillary hyperhidrosis. (p. 310)
7. What is the most frequent cause of spontaneous rupture of the extensor pollicis longus tendon and what are two methods of repair? (p. 166)
8. What anatomical structure does the ulnar nerve traverse in the hypothenar area where it may occasionally be impinged on and injured? (p. 171)
9. Is the index finger the most important digit of the hand other than the thumb? (p. 163)
10. What invasive disease originating in the tendon sheath apparatus can produce extensive bone destruction? (p. 102)
11. What is the hemostatic agent of choice for controlling nonspecific oozing in an implant cavity because the agent also has antibacterial activity? (p. 264)
12. What, if any, is the potentiating effect on wound infections by surgical drains? (p. 256)
13. How does glucose-potassium-insulin solution improve low-flow septic shock? (p. 239)

14. In septic shock, does the low-flow state carry the best prognosis or does the high-flow state? (p. 240)
15. What is the effect of dopamine in septic shock? (p. 241)
16. When does gastroduodenal erosion (Curling's ulcer) occur following burn injury and what is its course? (p. 189)
17. What are the pulmonary function changes seen in post-burn respiratory distress and how are they treated? (p. 194)
18. What techniques are available for surgical excision of deep burns and what are their relative merits? (p. 199)
19. Under what circumstances has it been possible to excise a burn of 80% of the body surface area and secure survival? (p. 203)
20. Describe leukocyte functions and how they may be altered by thermal injury or treatment. (p. 207)
21. What are B cells and T cells? How do they relate to burns? (p. 208)
22. What is the relationship between *Candida* and *Escherichia coli* as regards sepsis? (p. 213)
23. What techniques are available to correct extensive and deep electric injuries? (p. 224)
24. How important is psychologic evaluation and counseling in severely burned children? (p. 229)
25. Name sources of intraoral material that have been utilized for coverage of the defect after mobilization of levator muscles. (p. 17)
26. What is the most accurate way to assess tearing and what is the procedure that could be utilized in the office for the detection of keratitis sicca? (p. 292)
27. Identify the anatomical site of 7th nerve involvement in hemifacial spasm. (p. 284)
28. By what technique is silicon localization in various organs detected? (p. 318)
29. State the theories of etiology of capsular contraction and evaluate them. (pp. 317 and 320)
30. What are the causes and treatment of valvular nasal deformity? (p. 300)
31. What are the materials used to improve appearance in enophthalmos and their limitations? (p. 295)
32. Name two ways to determine the area of excision necessary for correction of hyperhidrosis. (p. 307)

33. How is adequate ventilation determined? (p. 327)
34. Why can't a hypertensive patient with a seizure disorder be put on a thorazine regimen for hematoma prevention after rhytidectomy? (p. 329)
35. Is it possible for cartilage to regenerate in the absence of perichondrium? (p. 146)
36. How can an alloplastic prosthesis and cancellous bone be used effectively in the reconstruction of facial bone deformities? (p. 32)
37. Tracheotomy is generally considered an extremely safe operation, but statistics show that it carries a high rate of morbidity and mortality. What are the complications of tracheotomy and how can they be prevented? (p. 379)
38. What is the most effective method of replantation of an avulsed scalp? (p. 144)
39. How would you treat pain in the temporomandibular joint secondary to transient stress? (p. 376)
40. What is the best method of management of lacerations of the parotid gland involving the duct and facial nerve? (p. 147)
41. How can chain saws be made safer in order to prevent extensive facial bone and soft tissue injuries? (p. 148)
42. In the patient with 7th nerve facial palsy in whom nerve reconstruction is not possible, can restoration of symmetry at rest and in function be attained? By what method? (p. 29)
43. Does the efficiency of a surgical knot depend on the tensile strength of the suture or on the type of knot used? (p. 377)
44. Loss of sensitivity of the ear lobes is a frequent complication after incisions for exposure of the parotid region. How can this complication be avoided? (p. 333)
45. How can regeneration of facial nerve function be explained in cases of destruction of facial nerve branches? (p. 143)
46. What are the two most common causes of loss of a skin graft applied to the tongue and how can they be prevented? (p. 52)
47. What is the most common malignant tumor of the eyelids and what is the most common site? (p. 53)
48. The deltopectoral flap has been found to be an extreme-

ly versatile flap. What areas of the upper part of the body lend themselves to its use? (p. 98)

49. Nonhealing ulcers of the chest wall after radiotherapy provide a challenging problem. What factors make them difficult to heal and what techniques are available to help promote healing? (pp. 97 and 98)

50. Malignant tumors of the parotid gland are found in about 20% of the cases. What are the most common varieties found? (pp. 83 and 84)

51. One of the more common complications of parotid gland surgery is Frey's syndrome. Explain what this is and give a suggested treatment for the condition. (p. 85)

52. Treatment of Madelung's disease, proliferative fasciitis and lymphangiomas is similar. Explain what it is. (pp. 61, 63 and 100)

53. Squamous cell carcinoma of the nasopharynx is most commonly treated by radiation therapy. What are the most frequent major complications? (p. 66)

54. What is Marjolin's ulcer and how is it best managed? (p. 101)

55. What is the malignant potential of the giant pigmented nevus? (p. 50)

# Congenital Anomalies

## CLEFT LIP AND PALATE

**Review of Results of Two Different Surgical Procedures for Repair of Clefts of Soft Palate Only** was made by Ross H. Musgrave, Betty Jane McWilliams and Hannah P. Matthews<sup>1</sup> (Univ. of Pittsburgh). The two procedures were simple palatal closure (Langenbeck) and the V-Y retroposition method. The simple palatal closures used lateral relaxing incisions with minimal undermining since all clefts were of the soft palate only.

The population consisted of two groups of children similar in chronological age and intelligence for whom operation was performed at an average age of 1 year 11 months in the simple closure group and 1 year 8 months in the V-Y repair group. In the early pre-school years, the children were evaluated for intelligence, language, hypernasality, hearing, articulation and voice quality. The groups were roughly similar in intelligence, language and articulation. The simple closure group was at first slightly more hoarse than the V-Y repair group and the latter slightly more hypernasal. Hearing acuity was somewhat poorer in the simple closure group.

On reevaluation after 2 years, increments in IQ of between 15 and 20 points in the mean psycholinguistic quotients were found in both groups, an indication that further consideration of the effect of cleft palate on overall early development is needed. The final evaluation was carried out when the mean chronological ages were 10 years 1 month for the simple closure group and 10 years 2 months for the V-Y repair group. The groups were roughly comparable in intelligence, language, articulation, hypernasality, nasal emission and velopharyngeal closure. They differed in hearing acuity, in which the simple closure group showed slight-

(1) Cleft Palate J. 12:281-290, July, 1975.



ly more hearing loss. This group was also judged to have more hoarseness.

These findings are not assumed to be conclusive; however, they do add to existing evidence that V-Y repair probably, overall, yields a somewhat better initial speech result than simple closure repair. Although differences between groups proved to be small, speech adequacy was achieved in the V-Y retroposition group with less need for secondary surgery, a highly important and critical difference.

### **Speech Results after Millard Island Flap Repair in Cleft Palate and Other Velopharyngeal Insufficiencies.**

Most surgeons consider permanent lengthening of the palate essential for cleft palate repair. However, the degree of lengthening is usually limited by the conditions on the nasal surface of the palate where the soft tissue is scarce and inaccessible. If the wound on the nasal surface is not covered with epithelial tissue, it will heal by contracture, thus canceling the benefit of the lengthening. Millard's method using an island flap of palatal mucoperiosteum from the oral surface to substitute for the soft tissue deficit seemed to offer a solution. A mucoperiosteal island flap measuring 12-15 mm wide could be expected to heal with minimum contracture.

Michael L. Lewin, Joyce C. Heller and Dolores J. Kojak<sup>2</sup> (Montefiore Hosp., Bronx, N.Y.) report their investigation to determine the effect of the Millard island flap repair on velopharyngeal competence and voice quality. Of 24 palatal operations performed using the Millard technique, in 14 patients it was used to correct an overt cleft palate (group A) and in 10 to correct velopharyngeal insufficiency in the absence of an overt cleft palate (group B).

Speech examination consisted of evaluation of voice quality by 3 trained speech therapists. Acceptable voice quality was observed in 70% of group A and 60% of group B patients. It is not surprising that the postoperative results in group B were poorer than in group A. Group B included patients with a diversity of conditions, including submucous cleft and incompetence secondary to a tonsillectomy and adenoidectomy.

(2) Cleft Palate J. 12:263-269, July, 1975.

The Millard operation results in better lengthening of the repaired palate and less chance of secondary contracture than other pushback operations. However, it is the muscular hypoplasia, the underdevelopment of the existing muscular element, which accounts for most of the failures in achieving velopharyngeal competence after repair. Tight closure of the muscular palate is probably responsible for poor mobility and residual velopharyngeal insufficiency. Although the Millard island flap method of repair is reliable and useful for cleft palate and other velopharyngeal insufficiencies, it does not offer substantial advantages over other established procedures.

► [It would be interesting to have another comparative series presented because the Millard island flap repair is more complicated than other established operative procedures. — K.L.S.] ◀

**Simultaneous Surgical Repair of the Lip and Nose in Unilateral Cleft Lip** is reported by K. Honigmann<sup>3</sup> (Thallwitz). This malformation generally is managed by several primary operations. For lip correction, an incision according to Millard's method is often the most appropriate. The most striking nasal deformity is the malposition of the columella, with a shift of the soft tissue of the tip of the nose toward the healthy side and flattening of the wing-shaped cartilage on the cleft side.

The author's technique includes incision around the columellar skin and its folding over onto the nasal tip as a flap. An extension of the incisions into the nasal vestibule exposes the crus mediale and part of the crus laterale, generally on both sides. The crures mediales are then sutured at the nasal tip and perhaps folded over laterally; the malposition of the columella is corrected by medial suturing in of the tip of the flap. Lengthening of the columella might be achieved by a V-Y plasty; the width of the nasal orifices is corrected by vestibular Z-plasty. Excision from the nostrils or shifting flaps from the nasal environment are avoided as much as possible. Deformities in the area of the septum are corrected as well. Figure 1 shows the method.

Surgery is carried out under local anesthesia and its duration is 85–120 minutes. Results are satisfactory cosmetically and functionally. Hospitalization time for the com-

(3) Zahn. Mund. Kieferheilkd. 63:246–249, 1975.

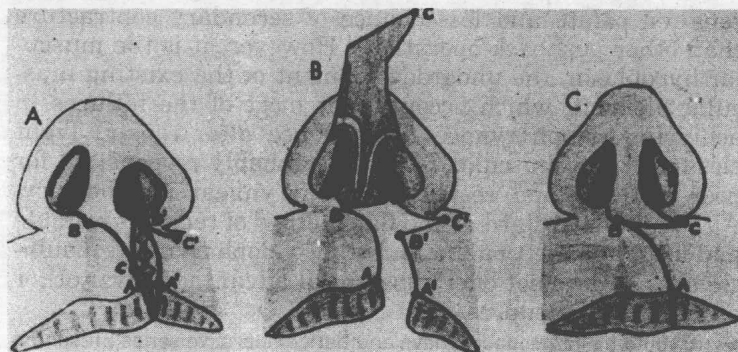


Fig 1. — Course of incision (A), developing flaps (B) and status after suture closure (C) in simultaneous correction of the lip, according to Millard, and of the nose. (Courtesy of Honigmann, K.: Zahn. Mund. Kieferheilkd. 63:246–249, 1975.)

bined procedure is no longer than required for either one alone.

► [The author is confused about the concept of the Millard repair and defers it until “after growth is complete.”—K.L.S.] ◀

**Treatment of Bilateral Cleft Lip** is discussed by Ivo Pitanguy, Carlos Alberto Jaimovich and Sérgio Rubens Matta<sup>4</sup> (Rio de Janeiro, Brazil). Bilateral cleft lip is an embryogenic abnormality resulting from lack of union of the inner nasal with the maxillary processes, whether by failure of mesodermal development to consolidate the fusion or by any type of blockade. When the disturbance occurs at 4–7 weeks of fetal life, the cleft reaches the bony structures of the primary palate because of a lack of fusion of the premaxilla with the alveolar arches of both sides. Many psychologic problems occur, some related to speech restrictions and social impairment. Significant anatomical deformities are part of the problem.

Bilateral cleft lip occurred in 24% of 699 cleft lip patients treated in a 12-year period; over half of the patients were about age 11 months. Relatives bore the deformity in 35 cases. Bilaterally complete clefts were present in 104 cases, bilaterally incomplete clefts in 20 and both complete and

(4) Rev. Bras. Cir. 65:187–196, July–Aug., 1975.