

LETTERS TO THE EDITOR

I want to comment about two aspects of the procedure used by Skolnick in his recent paper "Videofluoroscopic examination..." (*CPJ*, 7, 1970, 803-816), because they raise some issues that all of use who do speech radiology should be concerned about.

The first has to do with the problems of using stop-plosives in examining the relationships between speech structures by radiographic films. Dr. Skolnick used /k/ as one of the speech samples in his project (see page 813). While it is clear that stop-plosives require oral direction of the air stream and, therefore, velopharyngeal competence, it is also clear that the duration of /k/ is very short and that there are a number of "stages" in the production of /k/. Since any radiologic technique involves a brief time-sample of behavior being sampled. It is difficult, if not impossible, to do that with stop-plosives. Most experimentors and clinicians interested in speech radiographic procedures use vowels and fricatives as the sample of speech. Vowels are used because the odds are high that such sounds can be sustained in relatively steady-state fashion for a long enough period of time so that an unblurred film can be obtained and so that the behavioral unit can be identified in a dependable fashion.

The second comment regards the need for information about the reliability of procedure for "reading" the base view films. I understand that Dr. Skolnick found it helpful to mark the films for publication purposes, but I wonder how many other experimentors and clinicians would see the same structural relationships as he did on the base films. Extreme examples are Figures 11b and 11d, in which I for one have great difficulty identifying the limits of the airways. I know only too well that clarity of x-ray films is often lost in the publication process. I do think however that it would be helpful to have some information on how easily the films can be read. Such information is particularly necessary when a new procedure is being developed and considered for use by a large number of professional people, as the Skolnick procedure now is.

I want to make clear, however, my admiration for the ingenuity and creativity with which Dr. Skolnick has devised his procedure. If some of these relatively minor problems can be ironed out, the Skolnick procedure will be useful in many settings. It all goes to show, I think, what a fresh eye and an interdisciplinary approach can bring about.

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Dr. Hughlett Morris raised two pertinent criticisms of my paper, "Videofluoroscopic Examination of the Velopharyngeal Portal During Phonation in Lateral and Base Projections: A New Technique for Studying the Mechanics of Closure" which appeared in the Cleft Palate Journal, pages 803-816, October, 1970. I wish to reply to his criticisms:

1) Concerning the use of "K," the sound was really a consonant-vowel syllable, "KA." The video tape permits a frame rate equivalent to 60 FPS cine (See page 809 of my article) so that the prevowel part of the "KA" is seen for several frames. However, all patients were studied with prolonged vowels and sibilants too. The particular patient referred to by Dr. Morris showed greatest movement of the lateral pharyngeal wall with "KA."

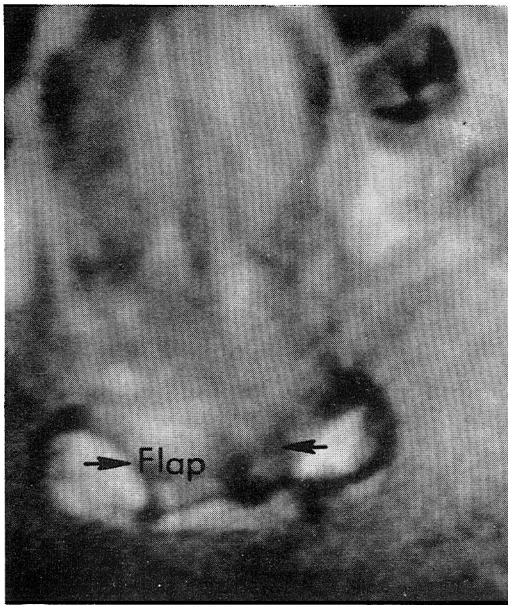


FIGURE 1. Photograph of the new technique of photographing the TV monitor.

2) Concerning delineation of the margins of the VP portal on base-video studies, these barium-coated margins can be well seen on the TV monitor. The illustrations in Figures 11B and 11D in the article were from an early video recording which did not have as much contrast as the more recent studies. Furthermore, all the still illustrations in the article were taken on polaroid film which further degrades the quality of the images. Currently, the TV monitor is photographed with a fast conventional film (Tri-X Kodak) which combined with the improved TV recording technique gives still images that do not require marginal outlining for publication. Figure 1, a base view of a patient with a flap during breathing, is an example of the improved photographic technique.

Once again, I appreciate the opportunity of replying to Dr. Morris' criticisms of my paper.

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ABSTRACTS

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Andrew, F. D., and Zimmerman, E.

F., Glucocorticoid induction of cleft palate in mice; no correlation with inhibition of mucopolysaccharide synthesis. *Teratology*, 4, 31-38, 1971.

Glucocorticoids were administered once intramuscularly on day 11.5 of gestation to pregnant C3H/An mice. Triamcinolone acetate (10 mg/kg) produced 80% fetal cleft palates and reduced ³⁵S-sulfate incorporation into palate mucopolysaccharides to 74% of control values. Cortisol acetate (320 mg/kg) administration under the same conditions resulted in 70% cleft palate and 35% of control incorporation. A nonteratogenic dose of cortisol (64 mg/

kg) inhibited mucopolysaccharide synthesis to 68% of control values, i.e., this effect was similar to that obtained with the teratogenic dose of triamcinolone. Maximal palatal mucopolysaccharide synthesis occurs during day 14.5 of gestation, the time at which fetal palate shelves normally move horizontally and grow toward each other prior to fusion. Marked inhibition of mucopolysaccharide synthesis by glucocorticoids at this time has been considered to be the basis of their induction of cleft palates, analogous to their antiinflammatory effects on other connective tissue. However, our results suggest that the induction of cleft palate by gluco-

corticoids is not related to inhibition of mucopolysaccharide synthesis by them but rather to growth inhibition. (Authors' Summary: Lass)

Aramany, M., L. Guerra, and A. Ballantyne, Skin grafting alveoplasty following intraoral resections. *Amer. J. of Pros. Dent.*, 24, 654-661, 1970.

A combined prosthetic and surgical approach has been found to be advantageous. Techniques of alveoplasty are described. Presurgical preparations and surgical procedure are illustrated. Fabrication of model compound stent and a method of constructing acrylic resin surgical stents is described. Vestibuloplasty increases the size of denture-bearing area, and retention of appliances is enhanced. Co-operation between surgeon and prosthodontist is stressed in the over-all planning. (Goldenberg)

Atherton, J. D., S. S. White, and D. Maisels, Histological changes following the surgical closure of a canine cleft palate. *Brit. J. plastic Surg.*, 23, 365-370, 1970.

A detailed histological description of both operated and non-operated areas of the palate of a dog following surgical closure of a cleft is provided. The authors believe that from the results of their investigation, it should be possible to make some assessment of the effect of cleft palate closure procedures on the cleft palate shelves in man. (Lass)

Baruch, J., and H. Szpirglas, Rapid expansion and bone grafting for correction of maxillary malformations in adult patients following primary surgery for cleft lip and palate. *Ann. Chir. Plast.*, 15 (2), 99-103, 1970.

Malformations of the maxilla as sequelae of cleft lip and palate combine hypoplasia of the middle portion of the face and collapse of upper arches, primarily as a re-

sult of the lack of orthopedic treatment after initial surgery. Treatment should combine orthopedic treatment with rapid expansion and surgical treatment with maxillary osteoplasty. Such methods result in both functional and cosmetic improvement. (Lloyd E. Church) (Oral Research Abstracts)

Bennett, J. P., A case of epignathus with long term survival. *Brit. J. plastic Surg.* 23: 360-364, 1970.

This paper describes a patient who has survived following treatment for epignathus, an extremely rare abnormality. It is a teratoma that arises from within the oral cavity and may be attached to the palate, mandible, or base of the skull. It usually causes death in neonatal life because of its location and because surgical removal is often impossible. (Lass)

Bethmann, W., and J. Efiert, The frequency of premature infants among children with cleft lip and palate. *Duetsch Stomat*, 19 (9), 649-59, Sept. 1969.

Among 3,305 children with cleft lip and palate at the Thallwitz Clinic of Plastic and Reconstructive Surgery between 1964 and 1967, 252 (7.625%) were born prematurely; in 58,108 live births without deformities at the Leipzig University Clinic of Gynecology (1954-1966) the figure was 5.018%. This difference was significant with the χ^2 -test. Comparison of chronological order of birth, age of the mother at parturition, weight at birth, duration of labor, position of the child and time of rupture of the amnion showed no significant differences between premature cleft patients and premature infants without deformities. (Hans Graf) (Oral Research Abstracts)

Blakeley, R. W., The rationale for a temporary speech prosthesis in palatal insufficiency. *Brit J Disord Commun*, 4 (2), 134-45, October, 1969.

A rationale is presented and a program described for the early treatment of speech disorders associated with palato-pharyngeal insufficiency. A temporary speech prosthesis is the vehicle of treatment recommended. It is proposed that placement of this device in children at ages 3-4 yr, after inappropriate function-for-speech of palatopharyngeal musculature has been determined, will force appropriate oral pressure, lead to development of early plosives, encourage abandonment of abnormal and yet unstable speech habits, and take advantage of children's rapid articulation-maturation period. Accompanying speech therapy is recommended, but the procedure lends itself particularly well to the child who is remote from speech help. It is the forcing of oral air pressure at an early age which is the critical factor in the rationale. A method for reducing the obturator out of the mouth or substituting a pharyngoplasty, if needed, as a substitute for the prosthesis is discussed. The general sequence of events, materials used, and retention for the prosthesis are described, along with 2 representative case reports. (Joel Wisotzky) (Oral Research Abstracts)

Boffey, P. M., Herbicides in Vietnam: AAAS study finds wide-spread devastation. *Science*, 171, 43-47, 1971.

This is a report of the findings of the American Association for the Advancement of Science Team (Herbicide Assessment Commission) headed by Harvard biologist, Matthew S. Meselson. The majority of the report is concerned with the effects upon forests and crops. Although the team's medical expert found "no definite evidence" of adverse health effects caused by the spraying, the team did find deficiencies in a recent study by the U. S. Army and the South Vietnamese Ministry of Health which exonerated herbicides as causes of birth defects. Evaluation of birth records in Tay Ninh by the team showed that in this heavily defoliated province the

Army records were grossly deficient. The Army reported 208 stillbirths in this province in 1968-69, but the team found 351. In the Tay Ninh City Province Hospital the team found a stillbirth rate of 64 per thousand, higher than any provincial hospital reported by the Army study and much above the country-wide average of 31.2 per thousand. The team found that the Saigon Children's Hospital had experienced a "disproportionate rise" in "pure cleft palate and spina bifida" in 1967 and 1968. However, the team noted that neither defect could be definitely attributed to the herbicides. There were reported no striking new deformities after the fashion of thalidomide in the sprayed areas. (Gregg)

Bornstein, S., D. G. Trasler, and F. C.

Fraser, Effect of the uterine environment on the frequency of spontaneous cleft lip in CL/Fr mice. *Teratology*, 3, 295-298, 1970.

It was previously shown (Davidson et al., '69) that the A/J female mouse predisposes her offspring to congenital cleft lip, either by providing a uterine environment or cytoplasmic factors that increase susceptibility, or by not providing a cytoplasmically transmitted factor, present in the C57BL/6J strain, that decreases susceptibility to cleft lip. In the present experiment males of the CL/Fr strain, which has a relatively high frequency of cleft lip, were crossed to females of the C57BL/6J strain, and the F₁ offspring were backcrossed to CL/Fr animals. Three second backcrosses were made such that embryos of comparable genotype developed in CL/Fr mothers or in hybrid mothers with or without the postulated cytoplasmic factors. The results showed that the maternal effect on cleft lip susceptibility was present in the CL/Fr strain, and was not mediated through the cytoplasm. Maternal age, parity, litter size, and sex and pigmentation of the offspring showed no consistent associations

with frequency of cleft lip. The demonstration of a uterine effect on cleft lip susceptibility suggests that it might be possible to modify the environment in the direction of increased resistance. (Author's Summary: Lass)

Boussagol, Pierre, Pre- and postoperative treatment of middle face clefts. *Rev Odontostomat Midi France*, 26 (4), 262-7, 1968.

The chronological order of surgical interventions regarding middle face clefts is well-documented. Labial intervention should not be done before 6 months; palatine intervention should be done between 18 and 24 months. Unilateral cleft lip surgery should be done at 6 months; if combined with cleft palate, surgical intervention should be postponed until 18 months. In patients with bilateral cleft lip one side should be treated surgically at 6 months and the other side at 8 months. If combined with cleft palate, surgery should be postponed until 18 months.

Before the first surgical intervention it is sometimes necessary to use facial orthopedics to obtain proper skeletal alignment in the areas adjacent to planned mucosal closures. The goal of pre- and postoperative treatment is to prepare the future position of the osseous bases, the alveolar processes, and the teeth. Room for the median tubercle is obtained by symmetrical expansion of the hemiarches; this is accomplished by the use of a palatine splint with an expansion screw. Once the necessary space is obtained, a portion of the splint pushing against one arch is removed and closure is accomplished between the one maxilla and the adjacent side of the median tubercle. The remainder of the splint is left in place for retention. At a later time, the portion of the splint between the tubercle and maxilla on the unoperated side is removed and the 2nd side is closed. The remainder of the palatal splint is left in place for retention. When the anterior portion of the vomer is at-

tached to the median tubercle and pulled to one side, a splint is fabricated with 2 wings extending into the cleft on the side toward which the vomer is deviated. Between these 2 wings an expansion screw is used and the vomer is pushed toward the midline. When the desired position is reached the opposite side is operated and closed first. At a later date, the other side is closed. When one side of the maxilla is collapsed toward the vomer and the other maxilla is in good position, it is necessary to push the medially displaced maxilla laterally without displacing the vomer or the other maxilla. This is accomplished by fabricating a splint with a wing extending into both clefts. The wing in the cleft on the normal side is made double thickness of the wing on the abnormal side. As expansion is obtained the wing on the abnormal side is rebased and thickened and the wing on the normal side is thinned. This is continued until the desired position is achieved. The normal side is operated first and the other side is done at a later date. It is very important that the facial orthopedics and the soft tissue closures be planned and accomplished so that the underlying skeleton is symmetrical after the soft tissues have been closed. (R. DeChamplain) (Oral Research Abstracts)

Dahl, E., Craniofacial morphology in congenital clefts of the lip and palate. *Acta odont. scand.*, 28, suppl. 57, 1970.

This report is a thesis for the doctorate degree at the Royal Dental College in Copenhagen. The study was designed to analyse facial morphology systematically in the various types of clefts, and comprised 272 Danish males, aged 18-33 years, who had cleft lip (CL), cleft palate (CP), or combined cleft lip and palate (CLP).

Occlusal aberrations were recorded and compared in the three main groups. Most pronounced malocclusion was found in the CLP group, and could be explained partly as developmental deviations in the

basal structures of the jaws, partly as direct or indirect sequelae of the surgical procedures in infancy and childhood. It is concluded therefore, that it should be possible to restrict the degree of malocclusion in subjects with combined cleft lip and palate by prophylactic and interceptive measures. (P. Fogh-Andersen)

Davis, B. D., Prospects for genetic intervention in man. *Science*, 170, 1279-1283, 1970.

This is a philosophical discussion of the subject of genetic control of man by man. Because this subject has been one frequently belabored in the popular press recently, more to sell copy than to advance the scientific aspects of the situation, the author defends vigorously the value of objective and verifiable knowledge, especially when it comes into conflict with political, theological, or sociological dogmas. Methods for control of genetic patterns are discussed, including: somatic cell alteration, germ cell alteration, genetic modification of behavior, copying by asexual reproduction (cloning), predetermination of sex, and selective reproduction. The implications herein contained are those which must be held in constant awareness by anyone who in any way treats congenital disease. (Gregg)

Dingman, R. O., and W. C. Grabb, A rational program for surgical management of bilateral cleft lip and cleft palate. *Plastic reconstr. Surg.*, 47, 239-242, 1971.

In the past the authors noted that where early lip operation included a radical elevation of the soft tissue from the anterior maxilla, maxillary deformity appeared to ensue. Further, following a Wardill's setback there was often significant underdevelopment of the maxilla with narrowing of the maxillary arch and hour glass configuration of the maxilla and malocclusion. The authors believe that bilateral lip adhesions with the ensuing pressure of

the intact lip on the premaxilla guides the premaxilla into position more effectively than the prosthetic appliances they had previously been employing. Accordingly, the authors presently advocate bilateral lip adhesions at age 10 weeks in one or two stages, a Millard bilateral advancement-rotation operation for lip closure at 9 to 12 months, with a forked flap procedure simultaneously in cases of marked nasal tip flattening. At age 15 to 24 months soft palate closure is accomplished with green stick fracture of the hamulus but no closure of the hard palate. Closure of the hard palate is delayed until almost complete maxillary development has been obtained. Conservatism in approach is a guiding principle to be observed. (Cosman)

Dostá, M., Morphogenesis of cleft palate induced by exogenous Factors: III. Intraamniotic application of hydrocortisone in mice. *Teratology*, 4, 63-68, 1971.

The author describes an intraamniotic-injection method developed at the Laboratory for Plastic Surgery at the Czechoslovak Academy of Sciences, Prague, Czechoslovakia. This method diminishes the occurrence of cleft palate caused by nonspecific factors to a uniform and low level. (Lass)

Dzialek, E., Cramp potentials in the EEG of children with facial dysgeneses. *Psychiatrie, Neurologie und Medizinische Psychologie*, 21, 11, 438-441, 1969.

Pre-operative EEGs of 82 children with various facial dysgeneses were established. They were primarily evaluated on the basis of EEGs after resting. In 50 cases (60.9%) the electroencephalogram was a pathological one. The greatest percentage of pathological EEG modifications was observed in children with clefts of lip, alveolus and palate. There was no correlation between the intensity of the facial dys-

geneses and the modification of the electroencephalogram. (E. Schmid)

Edgerton, M. T., and A. L. Dellon, Surgical retrodisplacement of the levator veli palatini muscle. Preliminary report. *Plastic and Reconst. Surg.* 47, 154-167, 1971.

5 patients with cleft palate speech had a new operation performed designed to posteriorly displace the insertions of their levator palatini muscles. The authors review in great detail the potential improvement which might be occasioned in both speech function and eustachian tube function if levator veli palatini insertions could be retrodisplaced. The mechanism of the operation is diagrammed and depicted. Hearing and middle ear drainage appears to be improved in one case. Speech was improved and cineradiographic evidence suggested greater palate lift in 4 of the 5 patients followed for a sufficient length of time post operatively. The test of time and the utilization of this procedure by other clinicians will be required before the benefits claimed by the authors can be fully substantiated. (Cosman)

Farkas, L. G., and W. K. Lindsay, Morphology of the adult face following repair of bilateral cleft lip and palate in childhood. *Plastic reconstr. Surg.*, 47, 25-32, 1971.

The authors studied 29 patients 14 or more years following surgical repair of bilateral cleft lip and palate carried out prior to the age of 2. The group included those with secondary procedures as well. 100 normal controls were used. A series of anthropometric measurements was carried out. The patients showed long narrow facies, total lip lengths that demonstrated lip growth comparable to normals, generally shorter columellas than normal although even normal columellas were associated with other nasal defects. The methods of measurement are depicted.

This paper is part of a broader study not yet published. (Cosman)

Fox, D. R., and D. Johns, Predicting velopharyngeal closure with a modified tongue-anchor technique. *J. sp. hear. Dis.*, 35, 248-251, 1970.

The authors describe a clinical technique for assessing velopharyngeal closure competency. The procedure involves having the client protrude his tongue and inflate his cheeks as the experimenter occludes the nostrils. The client is asked to hold air in his cheeks while the experimenter releases the nostrils. If there is no escape of air, it is concluded that the velopharyngeal seal is adequate. This clinical method was utilized with 21 cases and the prediction of presence or absence of velopharyngeal closure was compared to lateral cephalometric x-rays on these same clients during the production of sounds /a/, /i/, and /s/. In all cases, the prediction of velopharyngeal competence or incompetence was verified by x-ray evidence. The authors recognize the need for further study of this procedure, but feel that it is a useful tool for the speech clinician and may serve as a guide for referral. (Mason)

Fraser, F. C., Genetic counseling. *Hosp. Prac.*, 6, 49-56, 1971.

The author has presented a paper beamed primarily toward the community physician outlining the problem of genetic diseases and stressing his importance in the "prophylaxis" against these disorders. Various autosomal dominant, autosomal recessive, and sex-linked conditions are discussed. Facial cleft deformities are mentioned only in passing. The author feels that continued growth of knowledge plus the increased availability of counseling services to apply that knowledge can do much to decrease the incidence of genetic disease, and genetic counseling can obviate a great deal of physical and mental suffering. (Gregg)

- Fukaya, M., Y. Tomida, and K. Takai,** A method of alar-plasty in cleft lip cases. *J. Jap. Stomatology. Soc.*, 19, 247-251, 1970.

The authors describe a method to mold the nasal ala in unilateral cleft lip patients. An incision is made along the margin of the affected nostril. The cartilago alaris major is prepared and is cut into several pieces, allowing the ala to be moved without resistance. After the length of the ala is equalized to that of the normal side, the ala is fixed. An acrylic resin splint which was made previously on the imaginary ideal shape cast, covers the nasal tip-ala. The splint is connected to a block of resin inserted into the nostril by metal wire. These splints are held in the position for about twelve weeks to mold the nose.

If the base of the ala is depressed, bone-grafting is accompanied to get better profile. (Machida)

- Gabka, J. and R. Tayfun,** Histological investigations of soft tissue covering the premaxilla in case of bilateral cheilognathopalatoschisis. *Deutsche Zahn-Mund und Kieferheilkunde*, number 5/8, 106-111, 1970.

The authors had the opportunity to investigate histologically the soft tissue covering the premaxilla of a new-born with bilateral cheilognathopalatoschisis who died shortly after the birth. They did not find any muscle tissue and thus were able to support the new theory of Hochstetter, Fleischmann, Veau, and Töndury concerning the morphogenesis. (E. Schmid)

- Gianelly, A.,** Orthodontic considerations in periodontal therapy. *J. Periodont.*, 41, 119-125, 1970.

Indications for Orthodontic treatment in patients with periodontal difficulties are flared incisors, crowding of teeth, tooth migration, rotation, need to upright teeth, buccal or lingual version corrections.

Case reports and techniques employed for each mentioned category are shown and graphically illustrated. The role of Orthodontics and principles of tooth movement are discussed. Indications and limitation of Orthodontic therapy as well as proper appliance selection and use becomes more apparent as Orthodontic fundamentals of force delivery and anchorage control become clear. Orthodontic considerations should be included in routine assessment of dental treatment plans. (Goldenberg)

- Gorlin, R. J., and H. Sedano,** Brachmann-De Lange syndrome. *Modern Medicine*, 38, 114-115, 1970.

This is a syndrome characterized by severe primordial growth failure, mental retardation, skeletal anomalies, typical facies, and hirsutism. Cleft palate occurs in 10% of the cases. The authors have presented a description of this anomaly accompanied by appropriate illustrations. (Gregg)

- Gorlin, R. J., and H. Sedano,** Down's syndrome. *Modern Medicine*, 38, 190-192, 1970.

The authors have presented an illustrated description of Down's syndrome with which cleft lip or palate or both occur in about one of two hundred children. This article is directed primarily toward general practitioners of medicine. (Gregg)

- Grignon, J. L., and G. Greys,** Functional sequelae of soft palate clefts: Velopharyngoplasty with backing of the soft palate. *Ann Otolaryng.*, 86 (10-11), 631-42, Oct-Nov, 1969.

The primary purpose of closing soft palate clefts is a good phonetic result. Success principally depends on the quality of velopharyngeal obturation. To obtain good obturation velopharyngoplasty is recommended. There are two types of velopharyngoplasty: inferior or superior pharyngeal pedicle flap. Velopharyngoplasty is delayed until adolescence of adult-

hood. Surgery performed at this time allows any deficiency in the initial velopharyngeal obturation to be corrected. It is essential to associate velopharyngoplasty with a backing of the soft palate. As soon as the initial operation is completed (between 18 months and 2 yr of age) a stable lengthening of the soft palate should be attempted even if it has to be done during the 2nd operation. Indications, contraindications, and operative techniques are described. Statistical results are reported for 22 children and 53 adults, with phonetic coefficients before and after velopharyngoplasty. (B. Karila) (Oral Research Abstracts)

Harris, M., Mutagenicity of chemicals and drugs. *Science*, 171, 51-52, 1971.

This is a report of The Conference on Evaluating the Mutagenicity of Drugs and Other Chemical Agents, held in Washington, D. C., in November 1970. It was reported that some investigators feel that chemical damage is now more important in the production of mutations than is radiation effect. During his evolution man has been able to detoxify chemicals but in the past 50 years there has appeared such a large number of new chemicals, many of which persist in the environment, that the chemicals now are factors encouraging mutations. Barton Childs of Johns Hopkins reported that between 4 and 20% of all conceptuses and 0.5% of all births now have chromosome abnormalities. By virtue of the fact that the death rate from parasitic and bacterial diseases has been lowered markedly, reducing the force of natural selection, now mutations are accumulating faster than they are eliminated. It was estimated that a mutation once introduced into the genetic pool will remain for 40 generations, "producing an increasing burden of mutational damage with each succeeding generation, since each generation adds its own new mutations to those handed down from the past." The most important

mutations are those in the germ cells because they are the ones which are distributed to offspring and retained in the population. Chromosome alterations may be in the form of gene mutations, chromosome breaks or losses. Techniques for determining mutagenic properties of drugs are costly and time consuming. Microbiological systems may be the easiest for use in mass screening, because DNA has the same double helical structure and the same four nucleotides in all organisms. In general mutagens for higher organisms are mutagens for bacteria also. No single method, regardless of its sophistication is sufficient to evaluate the hazards of a chemical. However, chromosome breakage is sufficient to ban a drug without resorting to the use of sophisticated techniques to demonstrate the specific type of mutational lesion. Human population monitoring is to be encouraged. (Gregg)

Jacobs, R. J., B. J. Philips, and R. J. Harrison, A stimulability test for cleft-palate children. *J. Speech Hear. Dis.*, 35, 354-360, 1970.

In previous research with normal talkers, it has been found that the ability to imitate correctly the production of a misarticulated sound in words and nonsense syllables indicates a favorable prognosis for speech training. In the present study, the authors report the development of the Miami Imitative Ability Test (MIAT) which evaluates the ability of the cleft palate talker to imitate the articulatory placement and acoustic production of consonant sounds in CV clusters. The MIAT was administered, along with an articulation test of sounds in words, to 129 children with cleft palate and 154 children without, between ages 30 and 72 months. After 12 months, the articulation test was readministered to 41 cleft palate children; 24 of whom had received language and speech stimulation. The results of the comparisons showed that (1) on the MIAT, all children scored higher in

imitating articulatory placement than imitating the acoustic production of the test consonants; (2) the cleft palate children performed inferiorly to the non-cleft speakers in imitating articulatory placement and acoustic productions; and (3) improvement in the articulatory skills of cleft palate children could be prognosticated from the ability to imitate articulatory placement, and occasionally from the ability to imitate the acoustic productions. The authors felt that the assessment of the ability to imitate articulatory placement in CV clusters offered positive suggestions for remedial procedures, and that the MIAT has potential for use as a diagnostic measure of velopharyngeal competency and as a screening test in evaluating articulatory skills. (Mason)

Jacobs, R. M., Failure of muscle relaxants to produce cleft palate in mice. *Teratology*, 4, 25-30, 1971.

This study was designed to examine the validity of the theory that descent of the tongue, which is presumably induced by fetal movements, is essential for normal closure of the secondary palate in mice. Nulliparous CD1 mice were given the following "muscle-paralyzing" agents on day 13½ of gestation, i.e., 1 day before the onset of the critical period of palate closure: d-tubocurarine chloride, gallamine triethiodide (Flaxedil), phenobarbital sodium, chlorphenesin carbamate (Maolate), and ethyl ether. The full paralytical effect of each drug was maintained for 42 hours, i.e., until day 15½ of gestation, by means of subsequent fractional doses. Various combinations of barbiturates, anesthetics, and muscle relaxants were also employed. All litters were recovered by laparotomy on day 15½ of gestation. The presence of fetuses that were flaccid, limp, apneic, and unresponsive to stimulation was accepted as evidence of transplacental passage of the employed compounds. No cleft palates were found in 656 recovered fetuses. This may

be viewed as an indication that muscular activity—either spontaneous or reflexogenic—is not essential for normal closure of the secondary palate in mice. (Author's Summary: Lass)

Jacobs, R. M., Normal closure of secondary palate in paralyzed mouse embryos. *J. Den. Res.*, 49, 1495-1497, 1970.

Several muscle-paralyzing agents were administered to pregnant mice one day before the onset of critical period of palate closure. The embryos did not reveal any spontaneous movements, and all reflexes seemed to be totally abolished. There was no teratogenic effect on palate closure, which suggests that muscular activity does not play a significant role in the closure of secondary palate in mice. (Luban)

Janerich, D. T., Sex differences in the relative frequency of congenital oral clefts. (Letter to the editor) *Teratology*, 4, 109-110, 1971.

This letter discusses the evidence provided for Meshin et al.'s (*Cleft Palate J.*, 5, 23-29, 1968) assumption that "...at a given gestational moment in time, male embryos as a group are more advanced or retarded in palatal morphogenesis than females." Burdi and Silvey (*Cleft Palate J.*, 6, 1-7, 1969, and *Teratology*, 2, 297-303, 1969) support this assumption. However, the author of this letter discusses several methodological weaknesses in their studies and concludes that the data provided by Burdi and Silvey do not prove unequivocally the existence of a sex difference in the rate of intrauterine development. (Lass)

Kanter, J., The use of RTV silicones in maxillofacial prosthetics. *J. Pros. Dent.*, 24, 646-653, 1970.

A technique for constructing a prosthetic appliance of RTV silicone rubber material is described. Methods of tinting, applying

eyelashes, hair, and methods of attachment and retention are given. These replacements are soft and of a texture that is very life-like. Silicones may be used for practically any restoration of tissue. They are light, elastic, flexible and can be stained to a normal cosmetic appearance. (Goldenberg)

Khoo Boo-Chai, Cleft of the lip and palate; the third affected sibling. *Brit. J. Plast. Surg.*, 23 (1), 50-3, 1970.

There may be an amelioration of the teratogenetic effect with succeeding pregnancies in families with more than 1 sibling affected with cleft lip and palate; 6 families with 3 affected siblings are described. The third sibling was least affected in 3 instances, more affected in 1, and equally affected in 2. The probability that random distribution of cleft severity may explain this phenomenon is not examined. (Chester S. Handelman) (Oral Research Abstracts)

Khoo Boo-Chai, The oblique facial cleft: a report of 2 cases and a review of 41 cases. *Brit. J. plastic Surg.*, 23, 352-359, 1970.

The author provides an analysis of 41 cases of the oblique facial cleft. This analysis shows that the oro-ocular cleft is approximately twice as common as the naso-ocular cleft. He offers a classification system for the oblique facial cleft which includes the following: (1) the naso-ocular cleft, (2) the oro-ocular cleft (Type I), (3) the rare oro-ocular cleft (Type II), and (4) a mixed group in which the various clefts exist together. (Lass)

Kirkham, T. H., Duane's retraction syndrome and cleft palate. *Amer. J. Ophthalm.*, 70, 209-212, Aug. 1970.

Duane's retraction syndrome, cleft palate and other anomalies are described in four unrelated females, ten to 19 years of age. Gestation and delivery were normal except that Case C had a breech

delivery. All had perceptive deafness except Case C, who was the only one affected in her family. Case B had a maternal uncle and a grandfather with perceptive deafness. Case A had a marked Klippel-Feil anomaly with gross limitation of neck and shoulder movements; her hand movements were good and she was employed as a typist. The Duane retraction defect was bilateral in all cases but Case B, in whom only the left eye was affected. It is concluded that the Klippel-Feil anomaly, cleft palate, Duane's syndrome and perceptive deafness are manifestations of a pleiotropic gene inherited in an irregularly dominant manner. (11 references.) (This abstract is from *Birth Defects: Abstracts of Selected Articles*, vol. 7, Sept 1970, abstract no. 70-747.)

Knowles, C. C., A. H. M. Littlewood, and P. G. Bush, Incomplete median cleft of the lower lip and chin with complete cleft of the mandible. *Brit. Dent. J.*, 127, 337-339, 1969.

A case is presented in which the following conditions were observed—a) An incomplete cleft of the lower lip and chin. b) The tip of the tongue was very slightly bifid and was bound down to the tissue between the two halves of the lip. A pale mass was found on the posterior part of the dorsum, provisionally diagnosed as lingual thyroid. c) Examination of the mandible showed it to be divided in the midline and the two halves to be freely movable. Further examination showed no abnormalities. (G. B. Hopkin)

Lubker, J. F., J. W. Schweiger, and H. L. Morris, Nasal airflow characteristics during speech in prosthetically managed cleft palate speakers. *J. sp hear. Res.*, 13, 326-338, 1970.

This study was designed to provide descriptive aerodynamic articulatory data regarding prosthetically managed cleft palate speakers. The results suggest that (1) prosthetic management of cleft pala-

may limit the range of velopharyngeal opening for some individuals to the point where the same speaker may demonstrate both nasal and denasal speech characteristics; (2) small amounts of nasal airflow may be present during speech without listeners labeling that speech as being defective; (3) nasal airflow increases as oral constriction increases, other things being equal; (4) voiceless consonants are produced by prosthetically managed cleft palate speakers with greater nasal airflow than are voiced cognates; (5) prosthetically managed cleft palate speakers demonstrated more nasal airflow for voiceless fricatives than for voiceless plosives, and more for voiced plosives than for voiced fricatives; (6) the duration over which a consonant must be sustained may be more closely related to relative speech defectiveness than is the required peak pressure for that consonant, and (7) prosthetically managed cleft palate speakers with borderline closure appear to be less consistent in nasal airflow rate than the speakers with either very good or very poor closure. (Authors' Summary: Mason)

Lynch, J. B., H. K. Wisner, R. M. Evans, R. Barnett, and S. R. Lewis, Cephalometric study of maxillary growth five years after alveolar bone grafting of cleft palate infants. *Plastic reconstr. Surg.*, 46, 564-567, 1970.

Cephalometric techniques were employed to evaluate maxillary growth five years after alveolar bone grafting had been performed in infancy. For controls, other cleft lip and palate patients managed by the same initial surgical procedures were used but maxillary bone grafting was not performed until after 6 years of age. 32 patients were in the alveolar bone graft group and 32 similar patients were in the no bone graft group. In both, the frequency and severity of maxillary underdevelopment were not great in the first 6 years and there was no significant differ-

ence between the two groups in the apparent rate of maxillary growth. (Cosman)

Machtens, E., and M. F. Wannemacher, The use of a tissue adhesive (Histacryl N and L blue) for surgical closure of palatal clefts. *Stoma*, 22 (3), 140-4, 1969.

In 60 cases of surgical closure of palatal clefts, the usual sutures were covered with a tissue adhesive. A special protection seemed guaranteed by this method. Because dehiscences of the oral part or ruptures of the sutures seemed to be reduced and the previously used plastic cover on the palate became unnecessary. Because such a palatal cover always retained food particles, its replacement by the use of tissue adhesive also reduced any increased danger of infection within the surgical area. Histacryl N and L blue were used as adhesives (P. Schärer) (Oral Research Abstracts)

Marshal, R. C., and R. N. Jones, Effects of a palatal lift prosthesis upon the speech intelligibility of a disarthric patient. *J. pros. Dent.*, 25, 327-333, 1971.

Disarthria is a speech problem that has as its underlying basis some type of neuromuscular abnormality. The palatal lift prosthesis has been found useful not only in cleft palate cases but in patients with velar paralysis and dysarthria due to cerebral palsy. Abnormal velopharyngeal functioning is aided by the lift appliance. It consists of a chrome alloy partial denture type of appliance involving as many natural teeth as possible for stability. Acrylic resin is processed to the posterior portion of the appliance and adjusted for comfort and tolerance by the patient. Patients exhibit a marked measured degree of speech intelligibility once they are accustomed to the fit. Resonance and articulation skills also show marked improvement. (Goldenberg)

Massengill, R., G. W. Quinn, and K.

Pickrell, The use of a palatal stimulator to decrease velopharyngeal gap. *Annals Oto., Rhino., and Laryng.*, 80, 135-137, 1971.

Five patients who lacked complete velopharyngeal closure during sustained phonation and connected speech were fitted with speech stimulators. The patients were seen at regular intervals and additions were made to the stimulators so that the appliance would continuously fit against the velum during phonation. Cephalometric tracings were conducted in order to study the V-P gap. Results of these tracings show that the V-P gaps were decreased considerably during the period of time of the study. (Author's summary: Gregg)

Massengill, R., and A. Spoerl, Lingual positions of cleft palate patients with and without velopharyngeal closure. *Folia Phoniatrica*, 22, 185-190, 1970.

The purpose of this study was to determine if significant differences exist between cleft palate speakers with a velopharyngeal gap and cleft palate speakers without a velopharyngeal gap in the distance from the back of the tongue to the first cervical vertebra, the second cervical vertebra, the third cervical vertebra, and the midpharyngeal cavity during production of the vowel /i/. Cinefluorographic films were taken of the velopharyngeal area of the 40 subjects, 20 in each of the two groups. Results indicate no significant differences between the two groups for all four measures investigated. (Lass)

Mato, M. and E. Aikawa, Studies on the so-called "epithelial cell reactions" in the presumptive fusible area during the morphogenic intrauterine life, particularly on the secondary palate formation. *Otolaryngology (Tokyo)*, 42, 49-53, 1970.

Courses of fusion of the lateral palatal processes and the nasal septum were in-

vestigated in the rat and human embryos. It was found that, in the epithelial cells covering the tips of the folds which were to be fused, there existed what authors termed the "epithelial cell reactions". The reactions contained degeneration and mitosis of the epithelial cells, hypertrophy of the epithel and disappearance of the basal membranes.

Insufficiency and/or modification of the cell reactions might, authors considered, cause the cleft lip and cleft palate. (Machida)

McEvvitt, W. G., The incidence of persistent rhinolalia following cleft palate repair. Analysis of 439 patients. *Plastic reconstr. Surg.*, 47, 258-261, 1971.

The author presents an analysis of 439 cleft palate patients personally treated over a period of 25 years. 3 operative procedures were compared: the Von Langenbeck closure, the VY forked flap closure and the "setback and closure" in which a U shaped incision is made within the alveolar ridge followed by elevation of the mucoperiosteum of the entire hard palate combined with a complete elevation of the mucoperiosteum on the nasal side of the bones. After fracture of the hamuli the palate is set back and the cleft is closed in two layers. For the entire series the overall incidence of rhinolalia was 23%. However, unilateral complete clefts, the most common type, showed an incidence of 10% rhinolalia when repaired by the VY operation and a high of 55% in post alveolar clefts repaired by the Von Langenbeck procedure. In general, the post alveolar cleft by all procedures showed the poorest results with only 71% of such patients achieving normal speech where 79.8% of patients with unilateral complete clefts and 82.4% of bilateral complete clefts succeeded in achieving normality after palate closure. In the author's hands the patient who has a palate repair including lining and lengthening requires a pharyngeal flap in fewer than 1 out of 5

instances. Accordingly, the author concludes that a primary pharyngeal flap is not desirable. (Cosman)

Millard, D. R., J. H. F. Batstone, M. H. Heycock, and J. F. Bensen,
Ten years with the palatal island flap.
Plastic reconstr. Surg., 46, 540-547, 1970.

The authors have performed approximately 200 island flaps in the course of the past 10 years of which 73 cases could be reexamined for evaluation. Of the 73 cases there were 24 complete clefts, 20 unilateral, 4 bilateral, 30 incomplete clefts, 5 submucous clefts, and 14 secondary operations. Out of the 24 patients with complete clefts, 20 had mobility within the normal range. In incomplete clefts, 25 out of 30 were within normal limits. 46 out of 59 cases resulted in palate length within normal limits. Short palate results in incomplete clefts appeared to be associated with those that had more tissue missing as in the horseshoe-shaped palate cleft. Satisfactory speech results were obtained in approximately 80% of the patients treated. Fistula formation was common in the early cases but with a modification of technique introduced in 1966, preserving a triangle of mucoperiosteum in the midline anteriorly over the incisive foramen, in the last 20 island flaps there was no fistula. The authors conclude that the use of the island flap for lengthening of the nasal lining is not a universal panacea for all palate problems but when the island flap can be spared and the required lengthening does not exceed 12 mm the procedure seems a good one. (Cosman)

Minifie, F. D., T. J. Hixon, C. A. Kelsey, and R. J. Woodhouse,
Lateral pharyngeal wall movement during speech production. *J. Sp. Hear. Res.*, 13, 584-594, 1970.

Movement of one lateral pharyngeal wall during the production of VCVCV trisyllables was monitored via pulsed ultra-

sound using a time-motion method of display. Three normal speakers produced the six English stop consonants combined with five vowels. The extent of lateral pharyngeal wall movement was found to be greatest on low vowels and least on high vowels. Pharyngeal wall movement during consonant production appeared to be dependent on the adjacent vowels. (Authors' summary: Mason)

Miyazaki, T., Morphological and functional development of the cleft palate patient after reparative surgery. *Jap. J. Plast. Reconstr. Surg.*, 12 (2), 145-50, April, 1969.

The underdevelopment of the maxilla and the alveolar arch is mainly influenced by the defect of the bone itself, and is particularly significant at the incisor area and the alveolar base. Craniometric study of the labial and alveolar cleft patients, with or without palatal cleft, shows maxillary deformity already at 6 months of age. However, the maxillas of these patients grow to a shape similar to the normal one, though smaller, by 3 years of age after reparative surgery of the cleft palate. Patients with 50-70 cm H₂O intraoral pressure in puffing show good speech improvement. Electromyographic study of the levator veli muscle was carried out. The cleft palate patients with good postoperative speech improvement reveal increasing electromyographic activity. Results of speech therapy of 270 postoperative patients are analyzed. Faulty speech habits, begun before surgery, influence the prognosis for speech greatly. About 60% of the patients with early good corrective surgery before age 2-3 yr have good prognosis even with faulty speech habits. The late surgical group of cleft palate patients has increasingly poor speech prognosis even with good operative results. Use of a palatal prosthesis to improve the cleft palate baby's sucking ability is emphasized for developing normal habits in speech. Early reparative surgery should be per-

formed before faulty speech habits are established. (Author Abstract) (Oral Research Abstracts)

Morton, N. E., C. S. Chung, and M.-P.

Mi, Genetics of interracial crosses in Hawaii. *Monogr. Hum. Genet.*, 3, 1-158, 1970.

In a study of the genetics of the many interracial crosses in Hawaii, 179,327 babies born there between 1948 to 1958 were evaluated. The racial composition of the material was determined by the birth certificates and blood types of the parents. Among the many social, anthropometric and medical studies made, congenital malformations were ascertained from several sources of information such as birth and death certificates and records from hospitals, institutions, and some private physicians. Comparability methods were developed to estimate the ascertainment. The total frequency of major malformations is not affected by hybridity. Among 72 hybridity tests on specific malformations, only two are significant. The incidence of major malformations, based on birth and infant death certificates, is 0.93%, a rate comparable to other series similarly ascertained. There are some racial associations, but the total frequencies of major malformations are very similar for Caucasian and Mongoloid populations. Spina bifida is much more frequent among the Japanese in Hawaii than in Japan; the rate is significantly less than for Caucasians. The incidence of spina bifida is 83 per 100,000 and a paternal effect appears to influence incidence. Data is also given on: hydrocephalus, anencephaly, polydactyly, clubfoot, Down's syndrome, cleft palate, harelip, and heart disease. Major defects (other than the above), multiple and minor defects, and the effects of inbreeding and outcrossing are also discussed. Interracial crosses provide information on the role of environmental factors along with genetic factors in the production of variability. (203 references.)

(This abstract is from *Birth Defects: Abstracts of Selected Articles*, The National Foundation—March of Dimes, 7 (10), abstract number 70-859, Oct. 1970.)

Pfeifer, G., Lip corrections under the undulating incision method after former cleft operations. *Deutsche Zahnärztliche Zeitschrift*, 25, 569-576, 1970.

Considering the morphological characteristics of the labial cleft, the author thinks an individual undulating line of incision to be indicated.

Several drawings demonstrate the method which may be applied to primary operations as well as correcting operations. Individual bow shaped and undulating incisions in the white part of the lip entail a stretching of the incision edges and ensure the full development of the muscle stumps. The guidelines for determining that form of undulating incision which is most appropriate in the respective case are explained in detail.

In the author's opinion the advantages of this method are as follows: it is much easier to dislocate the edges of the cleft and the outer scars are hardly to be seen, as an angular incision has been avoided. The possibility to locate the angular incision in the nasal limen is not discussed. (E. Schmid)

Quinn, G. W., K. L. Pickrell, and R.

Massengill, Treatment of mandibular prognathism in cleft palate patients. *Amer. J. of Orthodont.*, 59, 76-86, 1971.

Two cases are presented to demonstrate the importance of age, and growth and development on treatment procedures. Conservative orthodontic treatment utilizing Class III elastic force or chin cap pressure can correct mandibular prognathism if the patient is treated at an early age while there is still considerable growth potential. After twelve to fourteen years of age, conservative treatment is not as effective, and an orthodontic-surgical ap-

proach involving a mandibular setback procedure is usually necessary. It is most important to retain all teeth in the cleft area as long as possible to allow maximal growth potential of the alveolar process. (Luban)

Reichert, H., Osteoplasty in complete clefts of the secondary palate. *Brit. J. Plast. Surg.*, 23 (1), 45-9, Jan. 1970.

In wide palatal clefts, implantation of a triangular piece of iliac bone is advocated to complete the roof of the hard palate, give the closed soft tissue layers support and to prevent maxillary compression. This procedure has been performed on 150 patients in a 10-yr period. (Chester S. Handelmann) (Oral Research Abstracts)

Riesenfeld, A., and M. I. Siegel, The relationship between facial proportions and root length in the dentition of dogs. *Amer. J. of Phys. Anthropol.*, 33, 429-432, 1970.

The present analysis represents a followup to a previous experimental study in which facial shortening obtained in rats by septum removal produced also shortening of the molar roots. In the previous study relative root length was compared in short-faced as against long-faced dogs and significant correlations between relative facial length and dental root length were found. Root shortening in the maxilla of short-faced dogs clusters around the areas of the premaxillary-maxillary suture and the maxillary-palatine suture. For the mandible it shifts one tooth more distally and is of lower statistical significance. The distribution seems to tie in with the greater growth arrest in the above sutural areas in the maxilla of short-faced dogs and the lesser growth arrest of their mandible. (Author's Summary-Gregg)

Robertson, N. R. E., Apparent duplication of the upper alveolar process and dentition. *Brit. Dent. J.*, 129, 333-334, 1970.

Robertson describes the case history of a male child admitted to hospital aged four days with feeding difficulties and cyanotic attacks during feeding.

Oral examination showed a cleft of the soft palate, an irregularly shaped mass attached to the oral surface of the hard palate and a fleshy mass arising from the dorsum of the tongue. The facial appearance was normal except for a small fistula on the mid-line of the bridge of the nose. Radiographic examination showed the cervical vertebrae to be bifid and an apparent duplication of the deciduous dentition in the palate. A later radiograph at two years showed developing duplication of the permanent dentition in the incisor region. (C. B. Hopkin)

Rohlfing, B., K. Lewis, and E. Singleton, Rubinstein-Tabi Syndrome. *Amer. J. Dis. Child.*, 121, 71-74, 1971.

An unusual case is reported. Patient has isolated cleft palate, double rows of teeth and deformities of the knees, elbow and toenails. Had a history of maternal first trimester rubella. Authors believe rubella might be the possible etiology of this syndrome. (Berkowitz)

Rosenzweig, S., F. M. Blaustein, and C. D. Anderson, An improved apparatus for producing stress-induced cleft palate in mice. *Teratology*, 3, 311-313, 1970.

This paper provides a detailed description of a special restraining cage for mice which was developed by the authors. This cage, which allows the mouse to drink in its usual manner, is an improvement over previously used restraining cages in which potato had to be used as a substitute for water. Eighteen A/J mice were restrained in the new cage for 48 hours from the fourteenth day of pregnancy. Eighteen control mice were allowed food and water, but were not restrained. Results show that 15.7% of the offspring of the restrained mice were born with clefts of the palate,

which was significantly higher than the 0.9% frequency for the offspring of the control mice. These findings provide further support for the belief that restraint can cause cleft palate. (Lass)

Ross, M. A., Functional anatomy of the tensor palati. *Arch. Otolaryngo.*, 93, 1-8, 1971.

A previously unreported variant insertion of the tensor palati into the maxillary tuberosity was present in five of 52 sides. Significant insertion of the tendon of tensor palati into the hamulus was not normally found. The vectors of the muscle pull of the tensor palati are vertical and anterolateral. The latter is more important in children and should be preserved in cleft-palate repair by leaving the insertion of the tensor palati and the hamulus undisturbed. (Author's Summary-Gregg)

Rudiger, R. A., W. Haase, and E. Passarge, Association of ectrodactyly, ectodermal dysplasia, and cleft lip-palate. *Amer. J. dis. Child.*, 120, 160-163, 1970.

The association of ectrodactyly, atypical anhidrotic ectodermal dysplasia, and cleft lip and cleft palate is described in a 3½ year old girl. It is proposed that the combination of defects represents a specific syndrome of congenital defects, named the EEC syndrome according to its main manifestations. (Author's summary: Berkowitz)

Schettler, D., New findings regarding the treatment of the Robin syndrome by controlling the blood gases and the acid-base balance. *Deutsche Zahnärztliche Zeitschrift*, 25, 395-401, 1970.

In case of a Robin syndrome the congenital microgenia with glossoptosis lead to a peripheral disorder of breathing. Therapy of choice is considered to be the mandible extension. In this connection the

extension weights are not determined on the basis of the criteria having been used so far, i.e. rosy appearance and free breathing, but as a result of blood gas analyses. The choice of weights depends on the oxygen partial pressure, the carbon dioxide partial pressure, the hydrogen ion concentration of the blood, the base deficit and the standard bicarbonate. It became obvious that a continuous traction treatment should be preferred to an intermittent extension treatment in order to avoid incomplete ventilation of the lungs and atelectases. (E. Schmid)

Schröder, S., and N. Schwenzer, On the treatment of the so-called Pierre-Robin's Syndrome. *Dtsch. zahnärztl. Ztschr.*, 24, 962, 1969.

Severe asphyxial conditions are relieved by conservative surgical procedures. For this purpose, an intermittent extension treatment is recommended. A lower jaw plate is made from an impression and fixed to the lower jaw with wire. The extension wire can be well fastened to the front rim of plate and thus does not cut into the soft parts of the bone. The specified weight of the extension of 40 to 60 g. Seems very low, since other clinics use 150 to 200 g. The authors reject the Rayn and Douglas method, since the scar contractions will prevent the forward development of the upper jaw. (E. Schmid)

Schuchardt, K., and O. Kriens, Primary closure of the velum. Anatomical basis, functional views and their consideration during surgery. *Chirurg.*, 40 (6), 273-7, 1969.

Anatomical studies suggested that the cleft palate operative procedure of Schwegkendiek, a primary veloplasty, be changed. The new surgical approach was planned to achieve a better functional union of the salpingopharyngeus muscles. The gliding space between the circular portion of the palatopharyngeal muscle and Veau's cleft muscle in the cleft velum

proper is given special consideration and the pathological muscle relations are made more normal by the construction of a salpingopalatine muscle sling. The indication for primary veloplasty is extended to preschool children with cleft lip, alveolus and palate, who have had the anterior portion of the cleft repaired without osteoplasty and subsequently have developed a collapse of the maxillary segments. Primary veloplasty helps in orthodontic treatment of these children. (H. Kaye) (Oral Research Abstracts)

Shannon, I., J. Terry, and R. Nakamoto, Palatal coverage and parotid flow rate. *J. prost. Dent.*, 24, 601-607, 1970.

This article reports the effect of coverage of the palate in the maxillary denture area on the rate of secretion of parotid saliva. Individualized flexible plastic mouth-guards were constructed for 100 subjects. Rate of flow of saliva was significantly reduced by the presence of a mouth guard. The decrease in flow seems to be a reduction in tactile sensation rather than lessened taste sensation. (Goldenberg)

Sharpe, C., Congenital lip sinuses. *Plastic reconstr. Surg.*, 47, 85-86, 1971.

Four more cases of congenital mucosal lip sinuses are reported, their treatment presented, and their relationship to cleft lip deformity briefly discussed. (Cosman)

Skoog, T., A head from ancient Corinth. *Scand J. Plast. Reconstr. Surg.*, 3, 49-53, 1969.

This is a report on a terracotta head from the archeological museum at Corinth. The head is dated back to around the middle of 4th century B.C. and represents a comic actor. The author had the opportunity to see this in a museum and found that the head presents a complete left-sided cleft lip with a typical nose deformity. It is notable that so long ago

this unknown artist had such a complete awareness of the morphological complexity of a cleft lip deformity even though it has been reproduced in figurines by the Inca Indians. This article is beautifully illustrated by colour photographs. (B. Nylén)

Skoog, T., Repair of unilateral cleft lip deformity: Maxilla, nose and lip. *Scand J. Plast. Reconstr. Surg.*, 3, 109-133, 1969.

This is a comprehensive article of the repair of unilateral cleft lip deformity with the so called boneless bone grafting that has been introduced by the author. A thorough description is made and illustrated of this method using the periosteal flap.

In his comments he points out that there has been no signs of interference with the growth of the maxillary bone after freeing the periosteal flap. The periosteum of the cleft maxilla demonstrated excellent osteogenic capacity, and the denuded maxillary bone was also capable of bone formation as well as complete periosteal regeneration.

With the introduction of Surgicel between the periosteal membranes this will lead to new formation of bone of the desired figuration with an increase of bone formation. This has been confirmed in more than eighty cases and the amount of bone formed exceeds considerably than that which has resulted from bone grafting. Tooth buds have been seen to migrate into the new bone. (B. Nylén)

Spina, V., I. Luis, L. Kamakura, N. Pigossi, and J. Psillakis, Utilization of palatal flaps to recover the raw area of the nasal surface in cleft palate repair. *Ann. Chir. Plast*, 14 (2), 159-61, 1969.

An operation was developed in which part of the palatal flap is fashioned as a pedicle which is then turned through the cleft before it is finally sewn up and used to cover the nasal surface; this is done to

prevent contraction. (A. J. MacGregor) (Oral Research Abstracts)

Stellmach, R., and G. Frenkel, On the occurrence of mirror image-concordant, complete, unilateral cheilognathopalatoschisis in siamese twins. *DZZ*, 25, 28-31, 1970.

Based on the observation of siamese twins with concordant, unilateral, complete cheilognathopalatoschisis the authors assume that in addition to polygenic types of clefts the monogenic types are also possible. This is particularly the case here.

In this regard the authors state that hitherto exogenous factors are not feasible for the development of clefts. Different intrauterine conditions can probably be made responsible for the different size of individual organ parts of the siamese twins but they cannot be made responsible for the development of the clefts. (R. Stellmach)

Stephenson, J., Repair of cleft palate by Philibert Roux in 1819. *Plastic reconstruct. Surg.*, 47, 277-283, 1971.

This is a reprint of a classic thesis published by Dr. John Stephenson in 1820 in which he details the closure of his own palate accomplished by Dr. Philibert Roux. (Cosman)

Taatz, H., Preoperative and postoperative orthodontic measures in children with congenital cheilognathopalatoschisis. *Fortschritte der Kieferorthopädie*, 30, Nr. 3, 1969.

Orthodontic treatment is particularly used in order to position the protruding premaxilla in patients with bilateral clefts or to reposition it into the dental arch. Surgical repositioning of the intermaxillary bone is no longer considered justified and thus traumatic repositioning is used. There can be no question that this is successful and the illustrations which are shown are adequate proof of this. The author is only surprised that orthodontists have not

noticed as yet that with all these measures they still promote pseudoprognathia which develops later on (caused by the usually present hypoplasia of the upper jaw).

In contrast to this, the suggestion that primary canine teeth should be ground off early in order to prevent that they adopt an endoposition in the cleft palate is correct. Furthermore, the suggestion is accepted that the juvenile incomplete dentition should be treated with a prosthesis which is also stated to facilitate speech development of the child. At the hospital in Halle the cleft palate is still closed according to the technique of Schweckendiek. Earlier stimulation attempts with the aid of a plate according to McNeil were abandoned since narrowing of the lumen of the cleft is stated to occur anyway. (R. Stellmach)

Ueo, K., Y. Kametama, and N. Aoki, A case of thoracopagus with clefts of lips and palates. *J. Jap. Stomatolog. Soc.*, 19, 252-258, 1970.

A case of female thoracopagus was dissected by the authors. The mother of the baby neither suffered from any disease nor had drugs before and during the pregnancy. She also had no hereditary disease.

The case was born after eight-month-stay in the uterus. She died just after the birth. Complete unilateral cleft of lip-alveolus-palate was found in each of the heads; one in the right and the other in the left. Histological examinations of the oral tissues revealed no apparent difference from that of ordinal cleft cases. General investigations showed as followed. The case had only one heart which composed of one ventricle and one atrium. Duodenums of the both bodies were fused to one along their courses, and the livers were fused at the posterior surfaces. Lungs of the two had three lobii bilaterally.

Thoracopagus with cleft lips and/or palates reported in Japan, are also reviewed. (Machida)

Walker, B. E., Induction of cleft palate in rats with antiinflammatory drugs. *Teratology*, 4, 39-42, 1971.

The effect of six antiinflammatory drugs on palate development in rats is studied. The drugs were injected subcutaneously from days 12-15 of gestation. It was found that daily doses of from 0.1 to 0.8 mg/day of triamcinolene, betamethasone, and dexamethasone produced significant frequencies of cleft palate in the offspring of the rats. However, cleft palate was not induced by methylprednisolone, prednisolone, and cortisone, even with doses of from 8 to 75 mg/day. Among the author's conclusions are that: (1) rats have a resistance to cleft palate induction by means of cortisone, and (2) a single genetic background is insufficient to evaluate the teratogenic potential of a drug. (Lass)

Weber, J., R. A. Chase, and R. P.

Jobe, The restrictive pharyngeal flap. *Brit J. plast. Surg.*, 23, 347-351, 1970.

The purpose of this paper is to provide a description of patients who have functionally restricting pharyngeal flaps and to discuss the patho-physiology involved in such restrictive flaps. Five patients with hypernasality resulting from low-lying restrictive pharyngeal flaps are discussed. The authors believe that to achieve maxi-

mum velopharyngeal competence, two points of surgical technique must be accomplished: (1) raise the flap high on the posterior pharyngeal wall, and (2) attach the flap to the superior aspect of the soft palate near the insertion of the levators. (Lass)

Zarnoch, E. G., and T. Zaleski, Phoniatric results in children operated for primary and secondary cleft palate. *Roczn. Pom. Akad. Med. Swierczewski*, 4, 269-92, 1968.

Twenty children aged 2 to 15 yr, with secondary or primary and secondary cleft palate were subjected to thorough clinical examinations, taking into account their deficiency in growth and weight and defining the bone age and intelligence quotient. The cleft palate was operated on by modified Wardill Kilner method. The anatomical and functional results obtained were good. The results, estimated according to the principle of consonant equality, indicate that the outcome of the surgical treatment is not necessarily associated with good speech development, although the latter is conditioned by it to a great extent. The final results are also influenced by other factors, particularly the child intelligence quotient. (Oral Research Abstracts)

BOOK REVIEWS

Communication and the Disadvantaged Child, Edited by William G. Hardy, Ph.D., Williams and Wilkins Co., Baltimore, 1970.

This book is the record of a Conference, *Communication and the Child*, held June 16–18, 1969, at Johns Hopkins Medical Institution. The title of the volume represents current interest in both communication and disadvantaged children. Most readers will accept as worthy the stated purpose of the conference “to help everybody realize that learning to communicate is the most difficult and rewarding part of growing up and that everything we do with the young child helps or hinders his ability to understand and be understood. . . .”

Disadvantaged is defined to mean “any child whose early life is lived in restricted social or economic circumstances which may interfere with his learning and maturing.” It is pointed out that this may occur in rural communities, but this conference focused on inner city children.

It is not evident from the title that much of the discussion concentrated on the development and use of day care centers as a vehicle for “improving the communicating prospects of all children.”

The format of the book reflects the organization of the conference. The morning sessions, which were devoted to formal presentations by invited speakers and discussants, are reported in the first half of the book. More than one hundred participants representing several disciplines were divided into afternoon discussion groups. Their discussions are summarized in the second half of the book.

The formal presentations represent a spectrum of viewpoints. To professional workers interested in the concept of team effort in rehabilitation, the chapter by Greta W. Bowman, “Training of Teams! Issues and Strategies” will be of particular interest. Although specifically addressed to teams of auxiliary and professional, she presents stimulating and discussion provoking material.

In describing the “Philosophy and Attitudes of the Children’s Bureau Regarding Hearing, Language and Speech,” John C. Schwab includes a discussion of intra, inter, and multi-disciplinary training programs.

Papers presented by Janet M. B. Hardy and Doris W. Welcher are based on findings from the Johns Hopkins Collaborative Perinatal Project. Hardy discusses Biologic and Social Aspects of Communication while Welcher discusses Communication and Academic Achievement. Kathryn B. Horton’s presentation outlines a preschool language demonstration project developed by the Bill Wilkerson Hearing and Speech Center and Vanderbilt Medical School.

Other major papers include a description of Maryland’s approach to

day care by Benjamin White and description of a family day care program in Richmond Virginia by Charlotte H. Crawford. Her presentation is extended by transcriptions of material presented by three day care mothers from the program.

Discussions of formal papers and observations based on personal experiences are presented by Gloria Engnoth, Michael Marge, Joan C. Maynard, A. J. Schaffer, Thomas Taylor and Margaret S. Withrow.

Sensitive and symbolic drawings by Aaron Sopher, identified as a Baltimore artist and social critic, enhance the text.

Although new and divergent opinions are presented in the first half of the volume, the discussion half seems contrived. The elimination of the identity of the individual speaking and substitution of a composite "inquirer" and "responder" contribute to a serious lack of spontaneity and an oversimplification of complicated issues.

Traditional middle class approaches to remediation seem to prevail. This is particularly evident in the discussions of language where the deficiency model is repeatedly emphasized ("he needs help in using abstract language, in extending vocabulary, and in somewhat more precise articulation so that he can be better understood." p. 144). The concept of a "second language" is dismissed as "serving no good purpose."

Early in the discussion the question is asked "does the disadvantaged child need the same skills as the middle class child?" The response is "sub-group members should be taught to measure up to the values of the dominant society. The dominant society should learn to accept the good aspects of the sub-group culture." p. 123. The consistency of this point of view is evident in the final list of points of agreement where this is repeated as the second point.

The distinguished reputation of its editor, the relevancy of its title to current issues, and the uniqueness of its format, will attract many to this small expensive volume. If it provokes thoughtful constructive discussion across professional disciplines, then its usefulness will surpass its obvious limitations.

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Oto-Rhino-Laryngology '70.

Editor, A. Bustamante Gurria. Published by Excerpta Medica.

This book consists of the proceedings of the 9th International Congress of Oto-Rhino-Laryngology (1969). The first three chapters of this book deal with the basic problems of diagnosis in the subspecialties of Ear, Nose and Throat.

Many of the articles are narrow in scope because of the limitation of

the field, but they are comprehensive in regards to new developments. The subjects of Otoneurology, Audiology and Radiology are covered extensively. There is a chapter on Plastic Surgery which covers only rhinoplasty, nasal tip plasty and a superficial discussion of maxillofacial trauma. Recent advances in the management of head and neck cancer are briefly presented in the concluding chapter of the book.

This book summarizes the current information throughout the world in each subspecialty of Ear, Nose and Throat. This book is recommended for oto-rhinolaryngologists engaged in either clinical practice or research and those individuals who desire a technical treatise of current world opinion on specific subjects in oto-rhino-laryngology.

STEPHEN J. HERCEG, M.D.

Harrisburg, Pennsylvania

ANNOUNCEMENTS

SYMPOSIUM AND PRACTICAL WORKSHOP ON MAXILLOFACIAL INJURIES TO BE HELD NOVEMBER 17-20, 1971

The University of Iowa Department of Otolaryngology and Maxillofacial Surgery will hold a Symposium (November 17-19) and a Practical Workshop (November 19-20) on all aspects of Maxillofacial and related Injuries.

The Symposium will include lectures, panel discussions, and informal Question & Answer periods by leading authorities in the field among Plastic Surgeons and Otorhinolaryngologists.

Acute and old injuries of the soft and hard tissues will be discussed, as well as injuries to the eyelids, the auricle, and the larynx and trachea. The Practical Workshop will cover suture techniques, flaps and Z-plasties, for which suitable fresh animal material will be provided. Instruction will also be given in applied dental anatomy; intermaxillary fixation will be practiced on articulated dental casts.

In addition to faculty from the University of Iowa College of Medicine, visiting professors will include Reed O. Dingman, D.D.S., M.D., Ann Arbor, Mich.; G. Slaughter Fitz-Hugh, M.D., Charlottesville, Va.; Jerome Hilger, M.D., St. Paul, Minn.; William W. Montgomery, M.D., Boston, Mass.; Paul Natvig, D.D.S., M.D., Milwaukee, Wis.; Richard Webster, M.D., Brookline, Mass.

Registration will be limited, and will be on a "first-come, first-served" basis. The fee is \$100.00 for the Symposium and \$175.00 for the Symposium and the Practical Workshop; Residents, \$100.00 for both (Registration for the Workshop only will not be accepted).

Write to: Leslie Bernstein, M.D., D.D.S., University Hospital, Iowa City, Iowa 52240.

INTERNATIONAL CONGRESS ON THE TREATMENT OF CRANIOFACIAL ANOMALIES TO BE HELD IN NEW YORK, OCTOBER 25-29, 1971

An International Congress on the Treatment of Craniofacial Anomalies will be held at the New York University Medical Center from October 25 to 29, 1971, under the chairmanship of John Marquis Converse, M.D. and Samuel Pruzansky, D.D.S. The subjects covered will be a classification of the various craniofacial syndromes including a review of the embryology and development of the craniofacial area, premature craniofacial synosto-

sis, otocephalic syndromes and maxillo-mandibular disharmonies. Registration is limited to 500.

SECOND ANNUAL SPEECH AND HEARING INTENSIVE THERAPY INSTITUTE—JULY 14 TO AUGUST 18, 1971

Texas Tech University Speech and Hearing Clinic, Lubbock, Texas announces its Second Annual Intensive Therapy Institute July 14–August 18, 1971. Children will have four therapy sessions daily five days a week as well as a recreation program designed to accelerate language development. Therapy will be administered by advanced student clinicians under the direct supervision of six members of the professional staff who have certification. Recommended donation for the program is \$150.00. Registration will close June 30, 1971. For further information concerning the program or housing please contact: Mrs. Mary Ann Mastroianni, M.S., Clinical Audiologist, Texas Tech Speech and Hearing Clinic, Texas Tech University, Lubbock, Texas 79409.

CALENDAR OF FUTURE MEETINGS

- International Congress of Human Genetics (4th), Paris, Sept. 6–11, 1971. SEC GEN: Dr. J. deGrouchy, Hospital des Enfants Malades, 149 rue de Sevres, Paris 15e.
- American Society of Plastic and Reconstructive Surgeons, Annual Meeting, Montreal, Oct. 3–8, 1971. EXEC DIR: Dallas F. Whaley, 29 E Madison St, Chicago 60602.