BOOK REVIEWS

BLOCH, BERNARD, and GARTH W. HASTINGS, *Plastics in Surgery*. Springfield, Illinois: Charles C Thomas, 1967. Pp. 187. $10.75.

The authors have presented a fine approach to the use of plastic materials in surgery. Bloch, an orthopedic surgeon, and Hastings, a polymer scientist, combine their skills in these two seemingly unrelated fields. This enables the surgeon to gain technology in dealing with various thermoplastic materials. It should prove equally enlightening for the chemist who wants to obtain a basic description of physical conditions imposed on implanted materials by a biologic system.

The organization is good. Each chapter has merit and makes a contribution to the whole. The first chapter deals with the physical and biologic factors of the host. Surgeons will find the second chapter most informative, since it deals with the general nomenclature and structure of plastic materials. The third is concerned with the present status of the commonly implanted plastics. It includes an integrated approach to the chemical and surgical applications. There is some criticism given of the results of implantation which have not been satisfactory. This could have been supplemented by reporting which synthetics have been abandoned or replaced. The remaining portions of the book deal with toxicity, sterilization, and future applications of plastic materials.

The major limitation of this book is the lack of depth, although that may be an unavoidable fault when one considers the breadth of material covered. Fortunately, an extensive bibliography is available for those readers who are seeking more comprehensive information on related facets of this interesting subject.

Drs. Bloch and Hastings have written a very timely book which serves as a practical guide to understanding the basic problems confronting the surgeon and polymer scientist dealing with the use of thermoplastic materials in the living tissues.

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LONGACRE, J. J. (ed.), *Craniofacial Anomalies: Pathogenesis and Repair*. Philadelphia: J. B. Lippincott Company, 1968. Pp. 389. $18.00.

This monograph contains the papers of 52 participants in an international symposium and workshop on craniofacial anomalies organized by Dr. Longacre and held in Cincinnati over two years ago. It is a pity that the publication of such a useful book was delayed so long, for it

contains much useful information for those who are involved in the treatment of patients with craniofacial malformations.

The opening chapter is concerned with the interaction of genes and environment in experimental teratology and the first section of the book contains a number of interesting papers on the etiology of malformations such as cleft lip and palate and mandibulofacial dysostosis. The second part of the book contains 11 papers concerned with the pathogenesis of the malformations. The third section, which occupies the major portion of the work, describes techniques of treatment of craniofacial malformations. The subjects discussed include surgery in the newborn and its special problems, the management of craniostenosis, congenital exophthalmos, hypertelorism, the nasal deformity in the cleft palate patient, the effect of the timing of surgical procedures and their effect upon growth and maturation, and a consideration on associated malformations in patients with craniofacial anomalies. Special sections are devoted to cranial anomalies, to mandibulofacial dysostosis, and cleft lip and palate.

A possible criticism of this book is the brevity of some of the contributions by world authorities on the subject, brevity which can be explained on the basis of limitations in the size of the book. The principal merit of the book, however, is to give the reader, whether surgeon, dental specialist, or speech scientist, or any researcher in the field of malformation, an overall review of the subject which will, no doubt, stimulate many to delve further into the published works of the contributors to this fine monograph. One wishes that the interesting and informative discussions which took place during the symposium between leading authorities could have been recorded and published. Dr. Longacre is to be congratulated to have been able to assemble such diverse participants as scientists working in the field of experimental teratology, pediatricians, neurosurgeons, cardiologists, craniologists, dentists, orthodontists, and reconstructive surgeons, who bring the reader up to date in his knowledge, through this worldwide interdisciplinary collaboration on the subject of craniofacial defects.

J. B. Lippincott Company is to be congratulated on the high quality of the publication.

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MILLIKAN, CLARK H., and FREDERIC L. DARLEY (Chairman and Editor), *Brain Mechanisms Underlying Speech and Language*. New York and London: Grune and Stratton. 1967, Pp. 261, 420 item bibliography. **$7.75.**

This thoughtfully-prepared text is the report of the proceedings of a conference at Princeton, New Jersey, in November 1965, which brought together scientists from a wide range of disciplines in an effort to begin

to interrelate the accumulated knowledge about the processes of human communication with the underlying neurophysiological processes. The Chairman stated that a major purpose was to "produce a publication which in its own right might act as something of a stimulating mechanism . . .". Seldom is a stated goal so quickly and so completely accomplished. The text is interesting and easily readable, so prepared as to give one the feeling of actually being in attendance and ready to participate in the ongoing discussion. Of course, since many in our field specialize in an area of work and study, there is much of the experimental research discussed that is perhaps beyond the general competence of each of us. However, so many areas of study to be accomplished are outlined that it can only make us aware of the contributions that we might be able to make if only by more fully reporting pertinent information from our own clinical experience.

A great variety of disciplines was represented (including speech pathology and audiology, psychology, linguistics, mathematics, neurology, anthropology, biophysics, et cetera), each by an outstanding individual. The fourteen formal papers that were presented proceed from discussions of animal vocalization (Thorpe and Lilly), through information processing (Hirsch and Evarts), to an analysis of the cross-modal effects in language as from visual to auditory discriminations (Ettlinger). The latter noted that, given experimental conditions under which specific cross-modal transfer is known to occur probably through verbalization, dysphasic patients will show a reduction in degree of such transfer; but given such conditions where verbalization is not required for cross-modal transfer of a principle, dysphasic patients can perform at their normal level of proficiency.

A particularly interesting paper was read by Chomsky, entitled "The General Properties of Language." He suggested that structure, not use, is important in language study and that linguistic structure which determines meaning involves abstract networks of grammatical relations. He said that grammars "are not learned but rather that their properties constitute preconditions for learning". Chomsky notes further that "deeper properties [of language] do not vary and are so abstract that it is hard to imagine how they could be learned." Psychological and neurophysiological investigations must eventually determine the mechanisms responsible for the structures which seem to be preconditions for the acquisition of language. Chomsky feels that thinking can proceed perfectly well without language and that thinking does, in fact, precede language.

There followed several reports of recent experimental research studies on brain mechanisms suggested by hemispheric connections (Geschwind); disconnection of the hemispheres (Sperry and Gazzaniga); temporal lobes (Milner); parietal lobes (Hecaen); and neurophysiological studies (Falconer). Rossi and Rosadini presented a paper entitled "Experimental Analysis of Cerebral Dominance in Man" that provoked a long

and lively discussion. They infer from their findings that a possible independence of handedness and speech dominance exists, and that there was a measurable difference in the emotional reaction observed according to the side of the drug injection: depressive reaction follows barbiturization of the dominant hemisphere, and euphoric reaction follows barbiturization of the nondominant side.

The four final papers were titled "Lacunae and Research Approaches to Them." As used here, lacunae refers to gaps in our understanding of brain mechanisms and their relation to language. Teuber noted that "Language is central among the higher aspects of behavior", and that the physiologists must eventually explain this. Magoun spoke of the need for improving rehabilitation of the residual brain for communication; and Masland pointed out that the discussions themselves were disturbing in their denial, or at least questioning, of our psychological and language testing and interpretation of test results. Darley, speaking as a speech pathologist, had some very pertinent thoughts on definitions and classifications of aphasia, apraxia, dysarthria and the need to have available data from our clinics for interdisciplinary study.

Perhaps the best rationale for this book and for the conference was stated in the concluding remarks of Richard Bain, who is recovering from a severe aphasia. He said, "When we come out of the darkness and we begin to be conscious, it is pretty difficult thing to know where our problems are". This conference was a beginning and, hopefully, a forerunner of many similar meetings that will not only define our problems but begin to find solutions for them.

This book will be a valuable if disturbing addition to any serious student's library.

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MYSAK, EDWARD D., *Speech Pathology and Feedback Theory*. Springfield, Illinois: Charles C Thomas, 1966. Pp. 113. $6.50.

The purpose of the book is "to specify the important practical and theoretical gains that may be derived from the translation of certain cybernetic concepts and terminology into speech behavioral terms". Although some deficiencies do exist, they are minor and the author has given us an extremely fine presentation.

The book is divided into two parts and consists of seven chapters. Part One, entitled Speech Behavior, introduces the reader to automatic control systems with various examples to illustrate open and closed loop systems. The author then commences to discuss the speech system as a multiple-loop phenomenon and presents a five-part model of this system based on an earlier model designed by Fairbanks. He also discusses the

general feedback terminology that will be used in the remainder of the book. The third and final chapter of Part One deals with speech development based on the previously designed cybernetic model. The author discusses prepropositional and propositional stages of language development; Mowrer's Autism theory, from a feedback standpoint; and various concepts of speech feedback necessary to the development of an intact speech system.

Part Two, consisting of four chapters, deals specifically with various disorders of speech and remedial procedures for these disorders utilizing cybernetic or feedback methodology. The author concerns himself with CNS impairment and Language Symptoms; problems of tonal generation or voicing; tonal modulation, which is described as "the stopping or constricting of an intoned or nonintoned breath stream by action of the articulatory system for the purpose of producing the sound units of speech . . ."; and finally tonal flow.

Generally speaking, the author has presented new and at times somewhat confusing terminology but no new concepts. He has enlarged and added to (quite successfully and much more succinctly) ideas presented earlier by Fairbanks and later by Van Riper. He has, at least for this reader, made cybernetic theory much more readable and intelligible.

The minor deficiencies that do exist relate primarily to the "new" terminology and to the lack of adequate explanation of the therapeutic procedures. At times the author brings in terminology which has never been defined. If the author intends this book to be used as a "first reader" in the area, then he must not assume that we are all familiar with cybernetic terminology or with Mysak terminology.

Although many of the therapeutic procedures discussed in the book were familiar to this reader, there still seemed to be a lack of adequate explanation of the therapeutic approach utilizing the feedback concepts and the new terminology. The author seems to be aware of some of these difficulties in his statement "that many of the ideas presented in the book still need to be supported by controlled studies and long-term clinical application".

In the final analysis, the book is a very well-written text showing the relationship of cybernetic theory to speech pathology and should serve as an excellent foundation for further theoretical and clinical research.

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ROBERTS, A. C., *Obturators and Prostheses for Cleft Palate.* Edinburgh, Great Britain: E. S. Livingstone, Ltd., 1965. Pp. 94. $4.00.

Since the author intended this volume to be used principally for the laboratory technician, the discussion of history and feeding problems may

not be of particular interest. Also, as mentioned by the author, not all designs for obturators can be covered in this text. However, he attempts to include the most common types in use and to give the technician a basic knowledge of the laboratory procedures. Many of these procedures have been written in various publications which are more extensive and which may help the technician to a greater degree than those in this text. Basically, this publication is of use to a technician who has had experience in the dental field.

The authors deserve a great deal of credit for the time and effort spent in accumulating and organizing the information which went into this publication.

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SHEARER, WILLIAM M., PH.D., *Illustrated Speech Anatomy,* 2nd ed. Springfield, Illinois: Charles C Thomas, 1968. Pp. 96. $5.75.

The author states that his purpose is to present a simple, well-illustrated anatomy text dealing exclusively with structures involved in speech and omitting detail for the sake of clarity. The majority of his diagrams and descriptions are clear, uncluttered, and accurate. The basic plan and presentation of the book is excellent for the beginning student. The first five chapters deal with respiration, the skeleton, phonation, articulation, and resonance. In this second edition, a sixth chapter on the anatomy of the ear has been added.

There are some inconsistencies in style and content in the various chapters. For example, the ear is treated in much more detail than any part of the speech apparatus. Innervation is reported only for the ear and muscles of the larynx. One cannot help but wonder at the inclusions of such "muscles of respiration" as the rhomboids and levator scapulae and the omission of the pterygoid and temporalis muscles as well as all muscles of the face. Some muscles are omitted from discussion but appear in illustration. Some terms are used without explanation, as in the reference to the organ of Corti. In listing "bones", bones and processes are intermixed. Such sites of muscle attachment as the pterygoid plates and hamuli, and facial structures such as the palatine, ethmoid, and vomer bones, are not given. The description of the genioglossus muscle is not compatible with the accompanying illustration.

In addition there are a number of questionable assertions as well as apparent inaccuracies. The description of laryngeal function does not seem completely in accord with the recent literature. For example, the author describes the arytenoid cartilages as sliding medially to approximate, then pivoting to bring the vocal processes together. Length of the vocal folds is given as the most influential factor in pitch regulation. The

error of equating short vocal cords with high pitch and long vocal cords with low pitch has been corrected in the second edition.

In some sections, there are unfortunate juxtapositions of ideas. For example, after discussing the process of vocal fold adduction, the author states that "since shorter vocal cords can open faster than long ones, a woman's voice is higher".

The basic approach of this book is a good and useful one for the novice. However, a revision to correct errors and inconsistencies would seem necessary, especially since the very student for whom the book is intended is most likely to be confused by its inconsistencies.

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SPRIESTERSBACH, D. C., and DOROTHY SHERMAN, *Cleft Palate and Communication*. New York: Academic Press, 1968. Pp. 291. $12.00.

Using a logical, systematic organization, *Cleft Palate and Communication* is designed to review the findings of past research on the communication problems of individuals with cleft lip and palate in order to present bases for the research findings, to identify gaps in the understanding of the findings, and to stimulate further research to close these gaps.

Chapters I and II present basic information about the anatomical and physiological bases for speech and the acoustics of speech production and nasalization. The next two chapters present speech characteristics of cleft lip and palate individuals and give some of the etiological bases for their speech problems. Chapters V and VI are concerned with the audiological, otological, and psychosocial aspects of the problem. The seventh chapter presents diagnostic techniques, suggestions for treatment planning and procedures for articulation, voice, motor, and language therapy. In the final chapter, Spriestersbach discusses the team approach and presents some professional implications surrounding specific issues directly related to problems often associated with cleft palate. The authors of the various chapters are James F. Curtis, Leonard D. Goodstein, Elise Hahn, Dorothy A. Huntington, C. M. Kos, Kenneth L. Moll, Hughlett L. Morris, William F. Prather, Ralph L. Shelton, Jr., and D. C. Spriestersbach.

Each chapter includes reviews of relevant research reports, together with an analysis of the research findings and a discussion of how they relate to the present status of knowledge about the communication problems of cleft lip and palate individuals. Every chapter is carefully outlined and closes with a relatively complete bibliography of the area presented. Author and subject indexes are included in the book. While the author index is complete, the subject index appears to be somewhat less detailed than is expected of a resource book of this type.

This book is recommended for advanced courses and seminars, as a

resource book for professional people, and for students and researchers interested in the communication problems of individuals with cleft lip and palate.

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STARK, RICHARD B. (ed.), *Cleft Palate—A Multidiscipline Approach.* New York: Harper & Row, 1968. Pp. 339. $16.00.

The purposes of this concise text are clearly stated in the preface and Dr. Stark has skillfully woven the multi-related facets of this problem-ridden deformity into a fascinating story. The authors are all members of the St. Luke's Cleft Palate Clinic; their writings obviously reflect the philosophy and teachings emanating from that institution. The ofttimes controversial material is presented with clarity and conciseness and, for the first time, permits the reader the luxury of gaining sound information from a single source.

Chapter 3, dealing with congenital defects, written by Stark, and Chapter 4, dealing with classification, by Kernahan, are exceptionally sound. The technical aspects of lip and palate repair are adequately discussed, although the complex and perplexing bilateral cleft lip and mobile premaxilla problems might well have received keener consideration.

The many serious dental problems associated with this deformity are briefly yet thoughtfully presented.

The chapters dealing with speech, language and hearing are extremely valuable and offer plastic surgeons a meaningful, concise source of information in an area in which they frequently are deficient. A liberal number of case presentations strongly underlines the value of the multi-discipline approach to the cleft problem. However, the board and rich literature in speech was not referred to. These chapters were somewhat weakened by this oversight.

The many remarkable questionnaires and forms employed by the St. Luke's Group and included in the text in themselves make the acquisition of the volume worthwhile. Universal acceptance of these surveys by cleft palate clinics, if diligently pursued and submitted to computer technics, could make available to the allied professions a host of extremely valuable information.

The diagrams and illustrations are of superior quality, and a moderately complete bibliography concludes the monograph.

The book is a long overdue contribution and should be sought by all of the personnel involved in the cleft palate rehabilitative field.

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ABSTRACTS

Bailit, H. L., J. D. Doyicos, and L. T. Swanson, Dental development in children with cleft palates. *J. dent. Res., 47*, 664, 1968.

Children with cleft palates were found to have significantly delayed tooth formation. It is hypothesized that this may be the result of a prenatal insult interacting with a poorly buffered genotype. (Luban)

Berkman, M. D., and M. Feingold, Oculoauriculovertebral dysplasia (Goldenhar's syndrome), *Oral Surg., oral Med., oral Path., 25,* 408–417, 1968.

The major areas which delineate this anomaly are the eye, ear, and the vertebrae. Bilateral preauricular fleshy appendages are always present. The eye may have epibulbar dermoid tumors, lipodermoid tumors and coloboma of the upper eyelid. The vertebral anomalies include occipitalization of the atlas, fusion of one or more of the vertebrae, supernumerary vertebrae, spina bifida and scoliosis. Oral and facial anomalies associated with this condition are unilateral hypoplasia of the mandible and maxilla, micrognathia, macrostomia, high arched palate, cleft lip and palate, malocclusion and/or openbite and other dental malformations. Four cases are reported with emphasis on the oral manifestations. Dif-

ferential diagnosis is made with mandibulofacial dysostosis and hemifacial microstomia. (Berkowitz)

Berkowitz, S., and S. Pruzansky, Stereophotogrammetry of serial casts of cleft palate. *Angle Orthod., 38,* 136–149, 1968.

A technique has been developed which permits three dimensional studies on serial plaster casts of the palate. The principles of stereophotogrammetry as developed in cartography have been applied to this problem. The molding action of two-stage lip repair and velar closure was demonstrated. Spontaneous narrowing of the palatal cleft and growth of the palate was shown in casts of a child with Pierre-Robin syndrome. It is hoped that this technique can be used to quantify changes in the configuration of the palatal vault. (Luban)

Birrell, J. F., Palatal disproportion in children. *J. laryng. Otolaryng., 80,* 707–717, 1966.

The author, an ear, nose, and throat surgeon, draws attention to the danger of causing nasal speech by the complete removal of adenoid tissue in children with palatal disproportion. The causes of palatal disproportion are discussed in relation to the effects of tonsillar and adenoid tissue on the functioning of the soft palate in speech. The importance of investigating any history of poor speech and of assessing palatal movement before operation is stressed and in this context lateral skull X rays to show soft palate function are considered an essential part of diagnosis. The author also stresses the value of speech therapy both before and after surgery. An operation is described for the removal of the upper part of the adenoid mass leaving a ridge of lymphoid tissue against which an incompetent palate may continue to make contact on phonation. The author concludes that palatal disproportion should be capable of diagnosis before surgery of the tonsils and adenoids. Such a diagnosis is considered to be more probable if the child is examined in a speech clinic in the first instance. (Hopkin)

Bulatorskaia, B. I., Influence of congenital harelip and cleft palate on the development of the child (Russian text). *Pediatriia, 6,* 63–67, 1959.

Clinical histories of 118,217 newborns in USSR were studied. The histories were taken from the archival material of the Institute for the Protection of Maternity and Childhood and from five maternity hospitals. The incidence rate is 1:1245 newborns. Of the 95 newborns with clefts, 30 had cleft lip, 24 had cleft palate, and 41 had cleft lip and palate. 51 were boys, 44 were girls, and 8 were prematurely born. 14 had other birth defects, and 11 of that 14 died soon after birth. The remainder of the report concerns aspects of care of children with clefts. In general, the physical development is slower, there is considerable difficulty with feeding, and the children seem predisposed to respiratory and digestive disease. (Coccaro/Morris)

Chaudry, A. P., et al., Some aspects of experimental induction of cleft palates. *J. Oral therap. Pharmacol., 4,* 98–103, 1967.

Pregnant A/Jax mice were divided into four experimental groups and those in each group were given a single 10 mg intramuscular injection of cortisone on day 11½, 12½, 13½, or 14½ of gestation respectively. Another group received a single 10 mg injection intraperitoneally on day 12½ and a control group was subjected to needle trauma. The mice were anesthetized and the fetuses delivered by cesarean section on day 18½ postconception. The single intramuscular injections of cortisone produced 85, 92.5, and 83% induced

cleft palates for the first three days of injection. This dropped to 32% for the fourth injection day. The intraperitoneal injection produced 76% induced cleft palates. The incidence of resorption was not significantly different for any day or route of injection. The incidence of spontaneous cleft palates (those associated with uni- or bilateral cleft lips) increased as the day of injection advanced from 11½ to 14½ days postconception but the difference was not statistically significant. The fetal weight was not affected by the day of injection but the average weight per litter was 0.68 gm for the treated group as compared to 0.95 gm per control group. The average weight gain was 3.35 gm per group for the treated mothers and 6.8 gm per group for the control mothers. (*Birth Defects: Abstracts of Selected Articles,* The National Foundation—March of Dimes, *5* (6), abstract number NF-MOD 68 489.)

Conway, H., P. McKinney, M. Climo, N. Hugo, R. Cole, and D. Goulian, A cleft palate registry in action. *Plastic reconstr. Surg., 41,* 38–49, 1968.

Using an exhaustive 24 page retrospective protocol the authors reviewed the 850 consecutive cases of cleft lip and/or palate seen at New York Hospital—Cornell Medical Center in the 34 years from 1932 to 1965. Data are presented on cleft morphology, location of cleft, and associated congenital anomalies. Three cases of clefts of the lip and hard palate but with soft palate continuity are noted. Data on sex, birth order, seasonal occurrence, etc., were obtained but not reported here. Treatment was also reviewed as it was applied to the lip, the palate, and the nasal deformity. It is the hope of the authors to arouse interest in a National Cleft Palate Registry and to seek amplification and refining of their protocol by interested clinics and experts so as to achieve a basis for prospective study of cleft patients. (Cosman)

Curtis, T. A., Fixed retention following cleft palate orthodontics. *Angle Orthod., 38,* 211–215, 1968.

A series of cases are presented indicating prosthetic procedures following orthodontic treatment. The importance of fixed crowns and bridge-retention is emphasized. (Luban)

Fára, M., Anatomy and arteriography on cleft lips in stillborn children. *Plastic reconstr. Surg., 42,* 29–36, 1968.

The cleft lips of 16 mature stillborn children were studied by injection of x-ray contrast material, anatomical dissection, and histologic preparation. In all types of unilateral clefts the muscle bundles ran along the edges of the cleft turning upward toward the nasal base on the lateral side and the base of the columella medially. The muscles in the philtral side of the cleft were always more hypoplastic and did not extend so far toward the edge of the cleft as did those on the lateral side. The arteries generally ran along the edges of the cleft parallel with the course of the muscle bundles. The arterial network was stronger and denser on the lateral side. Arterial branches were found to pass over to the opposite side of the cleft in some cases of incomplete clefts but this was from the lateral side only, not from the philtral side. No especially wide anastamosis of an inferior labial artery with an angular artery was encountered. In complete bilateral clefts, muscle tissue was not present in the prolabium but a rich vascular network starting in the septal and columella arteries was present. Both muscle and arterial connections with the prolabium were stronger in the incomplete bilateral cleft lip than in the connections occasionally found in the incomplete unilateral cleft lip. Some of the clinical im-

plications of these findings are discussed. (Cosman)

Farkas, I., K. Hajnis, and L. Kliment, Coded surgical case history for cleft lip and cleft palate: a draft. *Acta chir. Plasticae (Praha), 9,* 109–120, 1967.

A preliminary report of a scheme for coding surgical case histories for cleft lip and cleft palate is presented. Morphological facial deviations as well as deviations of the oral cavity and the nasal cavity are expressed in absolute measures or in indexes. Rules customary in anthropometry are to be observed when making measurements. Acceptance of uniform documentation by a greater number of medical institutes would mean a great step forward in the study of cleft anomalies. (from *Excerpta Medica*)

Fujino, Hiroshi, Therapy of clefts of lip and palate by team approach. *J. oral surg. Soc. (Japan), 12,* 1–20, 1966.

The cleft palate team at Kyushu University Medical School consists of oral surgeons, prosthodontists, orthodontists, a pediatrician, a speech therapist, an otorhinolaryngologist, and an anesthesiologist. The same patient is seen by the various specialists and treated after they all confer. Technics of operation and treatment, various clinical examinations and complications, and their clinical results were summarized and discussed, based on 2338 patients. The operating results have improved considerably and the mortality rate has decreased to zero since the team approach started in 1954. (Watanabe)

Grignon, J. L., and G. Schneck, Observations on the coherency of the Robin syndrome in newborns. *Rev. Stomat., 67,* 464–475, 1966.

The form and importance of the cleft is a major factor. In instances of cleft of the soft palate, a backward displacement of the glossoptosed tongue occurs. It is pressed and blocked behind the soft palate, and the contraction of the tongue may lead to asphyxia. Minor neurological problems such as hypotonia and hyporeflex reaction of the upper part of the respiratory and digestive tracts may also be aggravating to these patients. In complete clefts, the contraction of the tongue rarely leads to its blocking because it has more room for movement, and there is room for air penetration. The aim of treatment must be a quick solution to the nutritional and respiratory problems. Once a solution to these problems is found, the baby's weight and mandibular growth tend to become normal. In the most favorable instances, feeding through a naso-esophageal tube is required for a certain length of time. For additional security, a silk suture may be passed through the tongue and left fixed on the chest. O_2 and a clamp for grasping the thread are available at the bedside. In the more dangerous instances, a permanent anterior fixation of the tongue must be carried out. Various methods of fixation are discussed: fixation to the mandible, fixation through the cheeks, and fixation to the lower lip. An anterior perimandibular fixture by means of 2 intralingual sutures going beneath the mandible and through the skin is recommended. Of the 10 patients observed, 9 survived and began to develop satisfactorily; 1 died of bronchial flooding in spite of anterior fixation of the tongue. The intervention did not take place early enough. (Weinstein/*Oral Research Abstracts*)

Handelman, C. S., and S. Pruzansky, Occlusion and dental profile with complete bilateral cleft lip and palate. *Angle Orthod., 38,* 185–197, 1968.

A group of twenty-six patients with bilateral complete cleft lip and palate who

have had lip and palate repair are analyzed for several aspects of dental occlusion. None of these patients experienced presurgical orthopedics, bone grafting, or primary resection and setback of the premaxilla. Dental casts and cephalometric records were analyzed at the age of four years. The major problem was the protrusion of the premaxilla. In six of these cases surgical removal or setback was necessary. Only one patient had lingual positioning of the maxillary incisors. The inclination of the maxillary incisors was variable. Molar crossbite was present in 31.9% of the cases, but was not considered severe. The interdental widths of the deciduous mandibular molars is narrower than that recorded in a noncleft sample. (Luban)

Huddart, A. G., Treatment procedures in cleft lip and palate cases. *Brit. Dent. J., 122,* 185–192, 1967.

Treatment planning for complete management of unilateral or bilateral clefts varies considerably from one activity to another. The morphology of these defects is outlined briefly. The growth and development are discussed from the standpoint of abnormal balance of muscle forces, direction and amount of growth of the cartilagenous nasal septum, and segments no longer attached to the rapidly growing nasal septal cartilage. The treatment aims to produce an acceptable appearance, obtain good speech, and rehabilitate the mouth for masticatory function. Care of the newborn includes feeding problems for the infant as well as psychological problems for the parents. Presurgical dental orthopedic treatment includes the use of infant obturator plates which may tend to reline the displaced maxillary segments. External elastic strapping is also used to correct the center line in unilateral clefts and to reduce the prominence of the premaxilla in bilateral clefts. This is started within the 1st day or 2 after birth. If presurgical dental orthopedic treatment is not undertaken, the lip is repaired at about 3 months of age. If presurgical dental orthopedic treatment has been undertaken, the lip is repaired at about 6 months of age following alignment of the segments. The palate is usually repaired at 11 or 12 months and, sometimes in selective instances, both lip and palate are repaired in one operation at a slightly earlier age. Early repair of palate gives better speech results than later repair. Dental treatment should be directed toward caries prevention, training the child to be a good dental patient, and preservation of teeth. Secondary surgical procedures are usually reserved until about 4 yrs. of age. Dental treatment from an orthopedic and an orthodontic standpoint is discussed in detail with the follow-up surgical procedures for the correction of residual defects. The long-term preservation of the teeth is stressed as the role of the general dentists in his contribution to the problem. (Bonnette/*Oral Research Abstracts*)

Huggins, D. G., and K. R. Mellor, Impression trays for the cleft palate infant. *Dent. Pract., 17,* 401–402, 1967.

Chester-pattern impression trays are constructed from helix metal; they have proved satisfactory under extensive clinical use in cleft-palate treatment. (Mensch/*Oral Research Abstracts*)

Ivy, R. H., A curiosity in the area of cleft lip-cleft palate. *Plastic reconstr. Surg., 42,* 160, 1968.

In a letter to the editor, Dr. Ivy presents a photograph of a unique monstrosity, a male fetus with two heads, the right one with a complete cleft of the lip and palate, and the left without any cleft. (Cosman)

Kernahan, D. A., D. A. Baird, W. R. Waters, T. Vines, and J. Cleall, An integrated approach to cleft lip and palate. *J. Lancet, 87,* 55–56, 1967.

A cleft-palate team of 2 plastic surgeons, a speech therapist, and an orthodontist is described. An 8-category system of classification of clefts, depending on the degree of involvement of the primary and secondary palates, is illustrated schematically. The group uses as its basis for treatment the philosophy that the aims of treatment in cleft lip and palate are to to make the child look, speak, and eat well, and if one had to choose one of these over the others, it would be to make the child speak well. (*dsh Abstracts/ Oral Research Abstracts*)

Kernohan, D. C., and W. D. Pielou, An appliance for premaxillary retraction in the infant with a bilateral cleft lip and palate. *Dent. Pract. (Bristol), 17,* 250–252, 1967.

Treatment of the infant with complete bilateral cleft of lip and palate in which the premaxilla tends to move forward relative to the lateral maxillary sulcus is presented. Use of a stockinette headcap and nylon elastic traction is described for the correction of the tendency for the forward movement of the premaxilla. Its use requires sufficient space between the anterior aspects of the lateral maxillary segments for posterior movement of the premaxilla. Expansion of the arches may be necessary to provide this space. The device offers moderate pressure over the premaxillary segment as an adjunct to presurgical orthopedic movement consideration. (Bonnette/*Oral Research Abstracts*)

Krogman, M. K., The role of genetic factors in the human face, jaws, and teeth: a review. *Eugenics Review, 49,* 165–192, 1967.

Fogh-Andersen stated that clefting of the lip and palate is genetically independent of isolated cleft palate, and that the first two are heritable anomalies. Cleft lip (±cleft palate) is most frequently inherited as a recessive trait, so called "conditional dominance". Cleft palate, alone, is inherited in a smaller number of cases and then as a dominant character with failing manifestation. Others suggested a simple recessive heredity with variable expressivity. A genetic predisposing factor allows the embryo to be more susceptible to minor and even haphazard swings in the interuterine environment. The most common malformation associated with cleft lip-palate in human fetuses have been reported as brachydactyly and syndactyly. Other frequently found malformations are club feet/hands, imperforate anus, absence of genitals and skeletal dysplasias. Some authorities believe that both cleft lip and cleft palate have a genetic component in common. Others suggest that cleft lip and cleft of the primary palate may be genetically mediated, whereas cleft of the secondary palate most often is associated with a tetragenic agent during the first trimester. The dichotomy is not that clear cut, but both may be mediated by genetic factors. Less clearly, tetrogenic agents may play a role in both, but certainly in secondary. (Ashley)

McDonald, R., Median facial cleft with hypotelorism. *Amer. J. dis. Child., 115,* 728–731, 1968.

A severe, central cleft lip and palate, hypotelorism, microcephaly, and a flat nose with a single opening were present in a male infant. The cut umbilical cord showed only one artery. Shallow orbits and a very short anterior cranial fossa were seen on lateral skull X rays. A very abnormal EEG indicated bilateral brain damage. At age three days, the infant died. Autopsy revealed anterior fusion of the cerebral hemispheres with a single ven-

tricle open posteriorly to the surface. Olfactory bulbs and tracts were absent, as were nasal bones. Chromosomal studies were normal as were the gastrointestinal tract, renal and cardiovascular systems. Bilateral bronchopneumonia was present. This pregnancy was normal, with no ingestion of drugs by the 41-year-old mother. Six other children were normal. The differentiation of patients with holoprosencephaly from those with a median facial cleft and hypotelorism is argued. (*Birth Defects: Abstracts of Selected Articles,* The National Foundation—March of Dimes, *5* (8), abstract number NF-MOD 68 678.)

McEvitt, W. G., Micrognathia and its management. *Plastic reconstr. Surg., 41,* 450–455, 1968.

Based on personal experience with more than 80 patients with micrognathia of which 41 appeared to have had the Pierre-Robin syndrome, the author takes issue with the routine performance of a lip adhesion operation. He notes the occasional failure of the Beverly Douglas type operation to alleviate the respiratory symptoms even when technically successful. Tracheostomy has been more certain and effective in his hands and it is his present method of choice in patients with this problem. (Cosman)

Machida, Junji, Studies on the length of speech interval and articulatory mechanisms of cleft palate patients. *J. Osaka Univ. Dental Soc., 13,* 13–26, 1968.

The aims of the study were to investigate the physical characteristics in CV syllable production, and to discuss the reasons of defects in the repeated syllables of cleft palate subjects. Productions of one CV syllable/sec, isolated syllable, and five CVs/sec (repeated once) were compared from the points of hydrodynamics. Thirty-six postoperative cleft palate adults were selected and classified into two groups according to articulatory performances, judged by seven speech pathologists. Those who could produce both the isolated and the repeated syllables sufficiently were assigned to group I, and those who could speak the isolated one well but not the repeated one were assigned to group II. Further, fourteen normal adults were chosen as a control group. The oral and the nasal airflow rates were measured by differential pressure flowmeters, and the intraoral pressure was measured by a strain gauge. Velopharyngeal size was calculated from these parameters, and time-relations of the parameters were measured, too. In the normal and in the cleft palate group I, the maximum values of intraoral pressure, nasal airflow rate, velopharyngeal size, and time-relations of the patterns revealed no significant differences between the isolated and the repeated CVs of each group. On the contrary, in the repeated syllables of the cleft palate group II, velopharyngeal size became larger decreasing the amount of air pressure, and time-relations were deviated. In cases with less respiratory efforts, these might be combined. One or combinations of these factors could be considered as the cause(s) of the articulatory deficiency in the repeated syllable production of cleft palate subjects. (author's summary)

Malson, T. S., Nasal-based obturator. *J. prosth. Dent., 19,* 299, 1968.

A technique is described for construction of an obturator using silicone rubber in the nasal portion. Portions of the appliance contacting the vomer and inferior turbinates were covered with a resilient material. Retention for an edentulous obturator was enhanced by using the nasal extension. A detailed case description outlines the technique for technical aspects of construction. (Swoope)

Massengill, R., Jr., K. Pickrell, and J. Fetterrolf, Relationship between articulation errors and other factors in children with cleft palates. *Plastic reconstr. Surg., 41,* 564–567, 1968.

A group of repaired cleft palate and cleft lip/palate patients was divided into 2 sections on the basis of number of articulation errors. An attempt was then made to correlate the "good" and "bad" articulation group characteristics relative to manometric readings, velopharyngeal gaps as plotted from cinefluorographic tracings, age at first surgery, and number of surgical procedures. In particular, 6 correlation coefficients were computed for the 2 groups: manometric readings versus articulation scores; manometric readings versus velopharyngeal gap; articulation scores versus velopharyngeal gap; age at first surgery versus articulation scores. None of these correlations were significantly different from zero for the group with "good" articulation. Significant correlations were found in the "bad" articulation group in the number of surgical procedures versus articulation score, and in the articulation score versus the velopharyngeal gap. The authors also discuss some of the mathematical as well as the procedural limitations of their approach. (Cosman)

Matsuya, Tokuzo, Basic studies on articulatory mechanisms of abnormal consonants phonation in cleft palate patients. *J. Osaka Univ. Dental Soc., 13,* 45–57, 1968.

Intraoral air pressure, which the author considers to give sound energy to plosives and fricatives, was measured simultaneously with nasally escaped airflow and sound wave, during CV productions. Differential pressure head and strain gauges were used to detect the airflow rate and the air pressure, respectively. Intelligibility of the speech was judged both by sound spectrograph and by eight speech pathologists. Forty-two cleft palate adults and fourteen normal adults were selected. Some of the results were as follows. In normal speakers, the peak of the intraoral air pressure appears just before and just after the beginning of the consonant waves in voiceless plosives and in voiced plosives and fricatives. In cleft palate speakers, the relation of the location of the peak to the onset of the consonant was nearly the same as that of the normal group. The amount of the peak pressure, however, was much less than that of the control group. The peak value of the intraoral air pressure showed significant relations to the articulatory intelligibility, and it was revealed that the peak air pressure of more than 22mm H_2O was necessary to obtain acceptable articulation. The amount of nasally escaped air measured during articulatory performances did not always show close relation to the articulatory intelligibility. The peak value of the air pressure was not always determined by the amount of the nasally escaped air. (Machida)

Millard, D. R., Jr., and S. Williams, Median lip clefts of the upper lip. *Plastic reconstr. Surg., 42,* 4–14, 1968.

A classification of median upper lip defects is proposed and the experience of the authors with these rare problems is outlined and illustrated well. (Cosman)

Mills, L. F., J. D. Miswander, M. Mazaheri, and J. A. Brunelle, Minor oral and facial defects in relatives of oral cleft patients. *Angle Orthod., 38,* 199–203, 1968.

The cleft patients and control group studied were selected from the patient files of the Lancaster Cleft Palate Clinic. Orofacial aberrations checked included: 1) asymmetry of the nares; 2) high palatal vault; 3) micromaxilla; 4) "U"-shaped maxillary arch; 5) supernumerary maxillary incisors; 6) peg-shaped maxillary lateral incisors; 7) congenitally missing

anterior teeth; 8) palatal tori. The data indicated that these morphological aberrations occurred as frequently in noncleft families as in cleft families. There was some increase in lip and palate defects, but this was not considered consistent enough to be of value in pedigree analysis. (Luban)

Moss, M. L., B. E. Bromberg, I. C. Song, and G. Eisenman, The passive role of nasal septal cartilage in midfacial growth. *Plastic reconstr. Surg., 41,* 536–542, 1968.

Advocating the therapy that the dimensional and spatial changes of the cranial skeletal structures are secondary responses to primary growth of functionally related soft tissues and cavities rather than the cause of the latter's growth, the authors here present observations in 2 patients and 12 rats which serve to support their view. The 2 patients had congenital absence of the cartilaginous nasal septum. At age 3 when seen, the patients were said to have had symmetrical facial development with normal dentition and form of the alveolar processes. Their deficiency was manifest only in the lack of normal position of the dorsum of the nose and in the absence of the anterior nasal spine and the nasal crests of the maxilla as well as a marked deficiency in the size of the nasal bones. The rats, at 20 days of age, were subject to electric cautery of the internasal sutural region and observed 30 days later. Despite the loss of nasal septal structure the facial skull was otherwise normal. Thus the authors conclude that nasal and midfacial skeletal growth are independent of each other. (Cosman)

Orlik-Grzybowska, Antonia, Aktualne problemy ortopedii twarzowo-szczekoewj u dzieci od O do 7 lat (Actual problems of facial-jaw orthopedia in children aged from 0 to 7 years). *Czasopismo stomatologiczne (Varšava), 20,* 617–623, 1967.

The necessity of very early diagnosis of the facial-bite deformities based on the functional not morphologic symptoms is emphasized by the author. Indications for early intervention to make efficient the mandibular movements of early rehabilitation in cases of fissures and Pierre-Robin syndrome are introduced in the work. (author's summary/Penkava)

Peterson, D. M., and R. N. Schimke, Hereditary cup-shaped ears and the Pierre-Robin syndrome. *J. medical genetics, 5,* 52–55, 1968.

The case studied occurred in a family in which a minimum of 12 members in five generations were affected with cup-shaped ears. A proband 23-month-old Caucasian female had the additional feature of Pierre-Robin syndrome. The authors speculated that the case suffered from two genetic defects, one the result of a completely penetrant autosomal dominant gene with an effect limited to the ear, and the other secondary to a variably-expressed gene producing a more significant imbalance in the development of the first and second branchial arches, resulting in the Pierre-Robin syndrome. They also concluded that a number of branchial arch syndromes exist that are genetically distinct and simply inherited, yet have considerable phenotypic overlap. (Gassert)

Pickrell, K., G. Quinn, and R. Massengill, Jr., Primary bone grafting of the maxilla in clefts of the lip and palate: a four year study. *Plastic reconstr. Surg., 41,* 438–443, 1968.

The authors present a less than enthusiastic report of their experiences with primary bone grafts in cleft lip/palate patients. 25 infants with complete unilateral clefts of the lip, maxilla, and palate, have been operated upon between 2 and 6

months of age with rib grafts inserted at the time of lip repair. 2 grafts were lost by extrusion, and X rays at 1 year showed no evidence of the persistence of the third. In those patients in whom the grafts remained (88%) no growth of the grafts either vertically or transversely could be shown. A persistent alveolar notch remained. In addition, the graft alone did not prevent collapse of the maxillary segments—a retainer was needed. No case of teeth migrating to and erupting spontaneously through a graft has been seen. If the maxillary deficit was grafted in a collapsed position and was expanded at a later date, the graft absorbed. (Cosman)

Pruzansky, Samuel, and Howard Aduss, Prevalence of arch collapse and malocclusion in complete unilateral cleft lip and palate. *Trans. Europ. orthod. Soc.,* 1967.

In a series of previous papers, the senior author and his associates detailed their criticisms of presurgical maxillary orthopedics and primary bone grafting. In brief, it was held that advocates of such procedures were in effect selling insurance against a condition for which they had no actuarial table, and where the premium charged was inordinately high. Two questions were posed: 1) Is collapse of the arch an inevitable sequel to repair of the lip and palate? If not, what is the frequency of such collapse? Correlatively, what is the prevalence of malocclusion among the collapsed and noncollapsed cases? 2) If some arches collapse and others do not within the experience of a single school of surgeons, utilizing essentially similar methods of repair, what are the factors determining ultimate arch form? Serial casts and roentgencephalometric films on 106 patients were reviewed to determine variation in arch form prior to lip repair and the changes following repair of the lip and palate. In 58 of these cases, serial records were available following palatal surgery and including the full deciduous dentition. The report detailed the variety of arch forms encountered and their relative frequency. The prevalence of malocclusion, particularly crossbite, was shown to be substantially less than that reported by others. Since none of the cases in the present survey was subjected to pre- or postsurgical maxillary orthopedics or bone grafting, and as the results were superior to those reported for cases where these procedures were employed, the merit of such techniques was questioned. The factors determining collapse of the arch, in the population under study, were shown to include the following: 1) Size and shape of the alveolar process. 2) Size and configuration of the palatal shelves. 3) Size and shape of the inferior turbinate on the side of the cleft. 4) Size and shape of the nasal septum. (authors' summary)

Rintala, A. E., and U. Gylling, Birth weight of infants with cleft lip and palate. *Scandinavian J. Plastic reconstr. Surg., 1,* 109–112, 1967.

Review of birth weight of all cleft lip and palate cases in Finland in 1956–1965 reveals the average weight of the anomalous baby to be slightly lower than a control series of normal hospital deliveries. Evidence indicates that the decrease in birth weight is related to the severity of the cleft anomaly. The number of premature births is increased in the anomalous group. Congenital anomalies not only predispose to premature delivery but also to general retardation of development. (Babcock)

Skoog, T., The use of periosteum and Surgicel R for bone restoration in congenital clefts of the maxilla. *Scandinavian J. Plastic reconstr. Surg., 1,* 113–130, 1967.

On the basis that periosteum covering

maxillary segments possesses normal growth potential, a double-layered periosteal flap repair of clefts of the primary palate is described. Adjacent periosteal flaps are sutured together to close the alveolar defect and the nasal floor, and a maxillary periosteal flap rotated across the cleft for a second layer of periosteal lining prior to lip closure. On follow-up examination there is end-to-end contact of alveolar segments, and less depression of the cleft side than when the lip repair alone was carried out. X rays revealed bone formation across the membrane as an almost constant finding, this being confirmed by subsequent surgical exposure following the original procedure. Eighty-three clefts (52 patients) have been operated upon according to these principles since 1964. Surgical R implanted between the periosteal layers at another part of surgical rehabilitation was found to enhance bone formation. Application of the principals of periosteal repair in complete and incomplete clefts is discussed as well as the indications for maxillary orthopedics. (Babcock)

Spivack, J., and J. E. Bennett, Glossopalatine ankylosis. *Plastic reconstr. Surg., 42,* 129–136, 1968.

A case is presented of glossopalatine ankylosis, a rare congenital anomaly, in which the tongue and palate are joined anteriorly and usually locally. Review of the literature suggests the similarity of the congenital aglossia syndrome to this one and leads the authors to conclude that these two conditions are variants of each other. This is a conclusion not shared by many other authorities. (Cosman)

Steegman, A. T., Jr., and W. S. Platner, Experimental cold modification of craniofacial morphology. *Amer. J. physical Anthropol., 28,* 17–30, 1968.

A possible relationship between craniofacial form and growth under cold stress was investigated through a control group (N = 17) and experimental group (N = 14) comparison. Two groups of young rats were exposed to 90 days of 22° C and 5° C temperatures respectively. Method of analysis included measurement of overall bodily dimensions as well as detailed examination of the cleaned, dried skulls and femora. Statistical comparison of the cold and noncold grown rats showed a number of highly significant mean differences; particularly a narrower nose, rounder neurocranium, and short femur were seen in the cold stressed animals. Human anatomical homologs were briefly noted as were their possible genetic and ontogenetic causes. (authors' summary/Gregg)

Takeda, Norio, Morphogenetic studies of cleft palate in mouse embryos. *J. Osaka Univ. Dental Soc., 13,* 151–169, 1968.

The development of the secondary palate in ddO mice was investigated histologically and 3H-TdR autoradiographically. The following results were obtained. a) The development of the palatal-process epithelium was most remarkable at the boundaries to the nasal epithelium on the inner wall of the process, and at the boundaries to the maxillary process on the outer wall. b) The rotation of the palatal process toward the horizontal direction started from the rostal end of one process, and, fiinishing on that process, it continued on the other process, beginning from the rostral end of it. c) About the time of palatal closure (15½ fetal days) the palatal and nasal epithelium began to differentiate into the covering epithel and the ciliated epithel, respectively. d) After the palatal epithelium began to differentiate, the proliferation of the palate epithelium suddenly decreased. In addition, the mechanisms of cleft palate formation induced by x-ray radiation and dexamethasone injection were also studied in the same way. In both cleft palate groups, the

palatal processes rotated more slowly than that of the control group, and the rotation ceased around the 15¾ fetal days, resulting in a cleft of the palate. In the author's opinion, if the palatal processes are not fully developed by the 15th day (the length of time required for the change of epithelial proliferation to epithelial differentiation), the resulting deficit cannot be compensated for. (Machida)

Thaler, S., and H. W. Smith, Submucous cleft palate. *Arch. Otolaryng., 88,* 184–189, 1968.

A submucous cleft of the palate should be considered in every newborn examination. Signs of a short wide uvula with or without a cleft should suggest other less apparent defects. The palate may be short, somewhat stiff, and hang nearly vertical like a curtain. The midline section may be extremely thin or even perforated and without a muscular component. The bony palate may have slight midline notching of the posterior border or may be absent in a long narrow V-shaped area up to the anterior alevolar area. This bony defect is most appreciated by palpation but may be observed during the act of phonating. The palate of every child being considered for tonsil and adenoid surgery should be examined for a possible submucous cleft since its presence may be unmask at the time of surgery by a pronounced permanent postsurgical cleft palate speech. (authors' summary/ Gregg)

Vallance-Owen, J., Fenton Braithwaite, J. S. P. Wilson, J. R. G. Edwards, and D. G. Maurice, Cleft lip and palate deformities and insulin antagonism. *Lancet, 2,* 912–914, 1967.

Serum albumin fractions of 34 mothers with or without cleft palate who had given birth to children with cleft palate or cleft lip were tested for insulin antagonism. Antagonism was established using a 1.25 gm % albumin concentration with the isolated rat diaphragm assay technic. Twenty-four mothers were insulin antagonistic and 6 of the 10 nonantagonistic mothers had a family history of congenital abnormality. Fourteen of 50 control mothers were antagonistic. (Emmings)

Vines, T., The role of the speech therapist on the cleft palate team. *J. Lancet, 87,* 62–63, 1967.

The duties of the speech therapist on the cleft palate team are described as the assessment of adequacy of the speech and hearing and appropriate therapy. The goals of speech therapy for the person with cleft palate are reduction of nasal emission, reduction of hypernasality in the voice, and improvement of articulation. Auditory training is also emphasized as a part of therapy. (*dsh Abstracts/Oral Research Abstracts*)

Wada, Takura, Cinefluorographic analysis of articulatory movements. *J. Osaka Univ. Dental Soc., 13,* 105–122, 1968.

Relationships between soft palate movement and tongue movement were investigated by a synchronized cinefluorography and sound-recording system. Ten cleft palate adults and five normal adults were selected for the study. In vowel phonation of controls, velopharyngeal closure began after the onset of the speech, and the beginning of the tongue-palate contracture showed little relation to the onset of speech. This variance of movement in vowel production made the vowel phonation of cleft palate speakers acceptable. In /k + vowel/blends, in the control and acceptable cleft palate speakers, both velopharyngeal closure and tongue-palate contracture were finished before the speech onset, keeping good coordinations in tongue and soft palate movement. In nonac-

ceptable cleft palate speakers, however, no velopharyngeal closure, no specifiable tongue movement, and no coordinations in tongue and soft palate movements were identified. The author considered that inability of the soft palate movement interferred with the coordination of the soft palate and the tongue, and this might cause the nonintelligible speech of the cleft palate speakers. (Machida)

Walden, R. H., R. K. Dean, M. Morrissey, L. Rubin, B. E. Bromberg, and S. LaPook, Autogenous vomer grafts for premaxillary stabilization. *Plastic reconstr. Surg., 41,* 444–449, 1968.

The problem of the protuding premaxillary segment in bilateral cleft lips is reviewed. Maxillary orthopedics have not obviated the need for surgical retrodisplacement of the severely protuding premaxilla. In a 10 year period, surgical pushback of such premaxillas was performed on 23 of 90 bilateral cleft lips treated. 6 patients have been subjected to a technique in which a quadrilateral portion of vomer is removed posterior to the vomerine growth center. The bone is then employed between the premaxillary and lateral segment with mucoperiosteal flaps elevated from each side to achieve a bony and mucosal union between the premaxilla and lateral segments. This method obviates the need for additional operating time and the morbidity required for a bone graft from another source. While bony union has been achieved, long term follow up of the consequences of the procedure is not yet available. (Cosman)

Warren, D. W., and S. B. Mackler, Duration of oral port constriction in normal and cleft palate speech. *J. speech hearing Res., 11,* 391–401, 1968.

The duration of oral port constriction during the production of a series of syllables containing plosives and fricatives was studied in 25 cleft palate and 20 control subjects. The cleft palate group consisted of 15 subjects who achieved velopharyngeal closure and 10 who did not. The duration of oral port constriction was determined by measurements of intraoral pressure (up to pressure decline) during production of consonant syllables in a carrier phrase. The data were grouped for comparison purposes into voiced fricatives, voiceless fricatives, voiced plosives, and voiceless plosives. Results indicated that the duration of oral port constriction was longest in cleft palate speakers with adequate velopharyngeal closure and shortest in normals. Voiceless fricatives exhibited the longest intervals of oral port constriction in each group. Significant group differences in duration of oral port constriction were found between voiceless fricatives and voiceless plosives, and voiceless fricatives and voiced fricatives. No significant statistical differences were established, however, between voiced fricatives and voiced plosives. It was concluded that palatal dysfunction tended to increase the differences in duration of oral port constriction between voiced and voiceless consonants. The significance of these results was discussed in terms of the characteristics of the test sounds: place of production, airflow considerations, acoustical differences, temporal values, and production compensations relative to status of velopharyngeal function. (Mason)

Watson, R. M., The use of tissue conditioners for obturator impressions. *Brit. dent. J., 124,* 226, 1968.

The use of conditioning materials is suggested for final impressions for obturators. The basic shape is obtained by utilizing compound softened in hot water. After the compound has been molded by various movement, the surface detail is recorded using the tissue conditioner as an

impression material. Reported advantages are: lack of "drag" during removel, property of "setting", adequate detail, and decreased tendency for overextension. (Swoope)

Weise, W., and P. Erdmann, Abnormal numbers or forms of teeth in the presence of maxillary clefts. II. *Zahnarztl Rundsch, 76,* 391–392, 1967.

The study of 103 patients with maxillary clefts showed a considerably greater number of missing or supernumerary teeth, as well as late formations and faulty developments, than found in the normal population. This was also true for teeth outside the actual cleft and for mandibular teeth, except that an increase in the number of supernumerary teeth was found with maxillary anteriors only. (Meckel)

Yules, R. B., W. H. Northway, Jr., and R. A. Chase, Quantitative cine radiographic evaluation of velopharlngeal incompetence. *Plastic reconstr. Surg., 42,* 58–64, 1968.

Single-frame and sequential-frame analysis was carried out on sound cinefluorography of 68 cleft palate patients, 24 velopharyngeal incompetency patients, and 34 controls. Neither age nor sex grouping showed statistically significant differences in 8 anatomical measurements made in each case. However, control soft palate length was shown to be greater than in cleft or velopharyngeal incompetence patients, and hard palate to pharynx distance was increased in velopharyngeal incompetence patients compared with both control and cleft palate patients. (Cosman)

ERRATUM

There is an error in authorship, page 284, July 1968, *CPJ*. Dr. Karfik has informed us that he is not the author of "About the pneumatization of mastoid process in patients with congenital clefts of the lip and palate" (*Žurnal ušnych, nosovych i gorlovych bloezněj, 1,* 65, 1966.), but rather the author is Dr. L. Ja. Derebaljuk, Experimental Institute of Stomatology, Odessa, U.S.S.R. Our apologies to Dr. Derebaljuk and our thanks to Dr. Karfik for informing us of the error.

ANNOUNCEMENTS

A postgraduate course in maxillofacial injuries will be given at the University of Iowa, May 5–9, 1969. Limited to 14 otolaryngologists, preferrably those engaged in academic practice, the course will deal with the immediate and delayed treatment of injuries to the soft tissues and underlying skeletal structures of the face and with associated dental problems. In addition to lectures and demonstrations, ample laboratory practice will be given in methods of open and closed reduction, interdental fixation, suture techniques, and the utilization of skin flaps. The fee is $250. Apply to: Leslie Bernstein, M.D., D.D.S., Associate Professor, Department of Otolaryngology and Maxillofacial Surgery, University of Iowa, Iowa City, Iowa 52240, U.S.A.

Graduate Traineeships in Cleft Palate Therapy and Rehabilitation, supported by the United States Public Health Service, are available to qualified applicants. Clinical training is offered at the Lancaster Cleft Palate Clinic, Lancaster, Pennsylvania. Graduate work in a basic science in connection with the clinical training is encouraged. The annual stipend is $6,000.00 with annual increments and dependency allowances, and is tax-free. Address all inquiries to: Chairman, Committee on Traineeships and Fellowships, University of Pennsylvania, School of Dental Medicine, 4001 Spruce Street, Philadelphia, Pennsylvania, 19104.

The Plastic Surgery Section of the Association of Surgeons of India has instituted a memorial lecture for the late Sir Harold Gilles, to be delivered each year at the annual conference of the Plastic Surgery Section. The lectureship is to be supported by the Gilles' Memorial Fund, established by the Plastic Surgery Section. Contributions to the Fund are solicited; inquires should be made to Dr. N. H. Antia, 'Ben Nevis' B. Desai Road, Bombay 26, India.

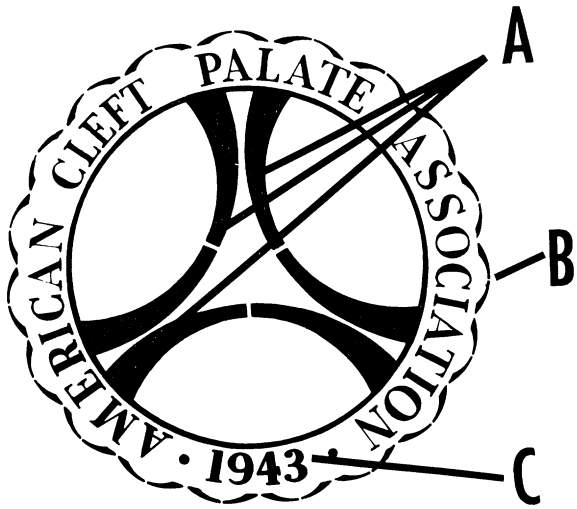
President Musgrave announces the adoption of an insignia for the Association, as follows.

Presented below is the official emblem of the American Cleft Palate Association. This insignia is the end product of much work and study on the part of Dr. Stephen Forrest and his Honors and Awards Committee in 1966 and 1967. A preliminary version of the insignia included the name of the American Academy of Cleft Palate Prosthesis, formed in 1943, and a

forerunner of ACPA. The earlier insignia also indicated that the name of the organization was changed to the American Association for Cleft Palate Rehabilitation, a change that occurred in 1951. The American Cleft Palate Association assumed its current name in 1958.

The following key explains the emblem: A, the central space of the emblem is occupied by cross sections of cleft palate, representing dentistry, speech, and medicine; B, the border is made of many cross sections of cleft palates, representing many various disciplines; C, 1943, the year of organization.

The insignia will appear as part of ACPA letterhead, and in all publications of the Association.



The Cleft Palate Center at Montefiore Hospital and Medical Center, New York City, will hold its Annual Symposium on Friday, April 11th, 1968, 10:00 A.M.–4:00 P.M. Those interested in attending the Symposium please write or call: Cleft Palate Center, Montefiore Hospital, 111 E. 210th Street, Bronx, New York, 10467; telephone: 212-920-4781.

NOTICE: The page charge policy, instituted with this issue of *CPJ*, will not be assessed for the publication of Congress papers since the publication of Congress papers has been underwritten by the NIDR grant. If, however, the Congress paper is lengthened for publication, there may be page charges for the added pages.

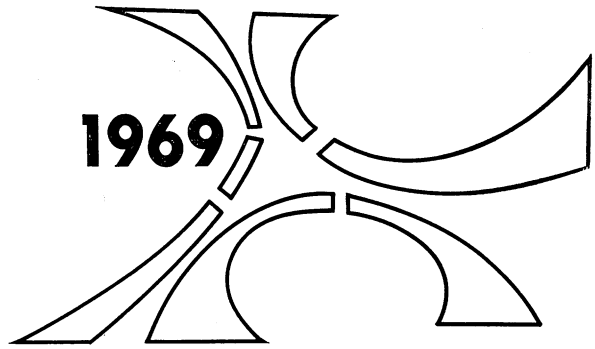
TIME AND PLACE, ACPA

1969—International Congress, April 14, 15, 16, 17..... Houston at the Shamrock
1970—April 16, 17, 18.....Portland at the Hilton
1971—April 22, 23, 24.....Pittsburgh at Chatham Center
1972—May 18, 19, 20.....Salt Lake City at the Utah
1973—date unspecified.....Oklahoma City

NECROLOGY

FRANCIS A. ARNOLD, JR.
December 1, 1967

About the 1969 International Congress on Cleft Palate



If the response to the Call for Papers can be accepted as a valid expression of interest in the Congress, the signs are that we can look forward to a landmark in scholarly and professional interchange. The Program Committee was deluged with abstracts of proposed papers, making its selection task a very difficult one. Unfortunately, many fine proposals could not be included because of time limitations. But I am happy to report that our colleagues from overseas are well represented in the Program; this will truly be an *international* Congress.

You have now received your preregistration materials. You can help us by returning the completed forms promptly.

On August 10 the Secretariat met in Pittsburgh to continue the meticulous planning that is required for any complex activity such as the Congress. Some of the Minutes of that meeting are reported here, partly to give you a feel for the depth of our planning and partly to give you some information resulting from our planning.

a) Specific instructions will be sent to those whose papers are accepted concerning translation (speaking version) and manuscript preparation. Information will also be provided concerning speaking rate, use of the microphone, and preparation of audiovisual aids.

b) A request will be made that the manuscript of each paper to be presented be sent to the Editor of the *Cleft Palate Journal* as soon as possible so that it can be processed for early publication. This request will be made to insure that all papers will be published in the Congress issues of *CPJ*. It should be noted that the publication schedule will be very tight and that all manuscripts must be in order for publication and must be submitted to the Editor at the time of the Congress, if not before.

c) The program (English version) will be printed in time to send out copies to all ACPA members and other preregistrants. Foreign preregistrants will be sent a multilingual version.

d) An essayist slide-booth will be available for reviewing slides. Essayists will turn in slides 24 hours in advance of their presentations. The slides will be logged in, numbered, and reviewed for the program of the next day.

e) All audiovisual equipment will be checked out on the Sunday preceding the Congress and each day before the program begins. Back-up equipment will be on hand.

f) The film schedule is to be printed in the program.

g) Tickets for social events are to be wallet size and color coded. The ticket for the barbecue, as an example, will include the following information:

ACPA International Congress
Barbecue
(date, time)
Buses furnished, (departure locations)
Admit one

h) A contract has been let with the Convention and Travel Coordinating Service (CTCS) of Houston to provide arrangements for the ladies. The program will include tours, style shows, and other activities supervised by a multilingual staff. The fees for these activities will be paid directly to CTCS and will be in addition to the social fees for the regular Congress events.

i) Registration materials handed out in Houston will include a name tag, tickets to social events, and a Congress Guide.

j) Preregistration can be cancelled until April 13 with refund of fee. Cancellations are made with Dr. Charlotte Wells. There will be no refunds made for cancellations after the April 13 date.

k) If a person registers for the Congress after any of the three major social events, the charge for the social events missed will be subtracted from the registration fee. However, there will be no refund for persons in attendance who do not care to attend particular social functions or who leave early.

l) Dr. Warren will be the only person at Houston with authority to obligate the Congress for services and materials. Further, he will work with the hotel officials to establish a procedure for identifying those members of the Congress staff who are empowered to give orders to the hotel staff.

m) Mailings of material concerning the Colloquim will be sent out by Dr. Wells when she receives preregistrations.

n) Copies of the Program are tentatively scheduled to be mailed by March 15.

o) The Secretariat will meet in Houston on January 4 and 5 to finalize plans for the Congress.

And so the days go—planning, writing, calling, cajoling, laughing, swearing, and, now and then, crying, all apparently the necessary and accepted ingredients that go to make a congress. See you in Houston!

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