BOOK REVIEWS

SATALOFF, JOSEPH, *Hearing Loss.* Philadelphia: J. B. Lippincott Co., 1966. Pp. 404. $14.00.

This is a practical but comprehensive reference book on hearing loss. It is well organized and written in a style which is easy to read. The author has stressed the principles and procedures for determining the causes of hearing loss but gives only a brief comment on treatment. His classification of hearing loss and breakdown into simple chapters makes an excellent book. It is well illustrated with charts, tables, and representative audiograms. The use of a tuning fork in diagnosis is stressed, as well as the interpretation of audiograms.

This book will be an invaluable guide to the understanding and diagnosis of hearing impairment and would be an excellent contribution to any library of medical textbooks.

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WRIGHT, HERBERT, F., *Recording and Analyzing Child Behavior with Ecological Data From an American Town.* New York: Harper & Row, 1967. Pp. 291, price: $4.50.

Dr. Wright, Professor of Psychology at the University of Kansas, has long been identified with the work reported and is eminently successful in presenting a complex and unique method of behavioral observation. Much of the material of this book is an abridgement and a re-assembling of material first reported in *Midwest and Its Children,* now out of print, authored by Roger Barker and Herbert F. Wright. This volume is a welcome edition for those who value the unique approach to the study of behavior it expounds.

The ecological approach, derived from naturalistic and descriptive research in the biological sciences, attempts to describe the habitats or natural surroundings of the child. How the child functions within specific environments and the general content of his behavior are also recorded. As a derivative of this approach, Wright stresses the need for naturalistic observations on a macroscopic rather than a microscopic level. He is concerned with the general flow or stream of behavior. The observations obtained, therefore, are detailed, sequential, and in narrative form. The need for skilled observers is stressed.

Two types of observational records are obtained: the first, the Day Record, records the behavior of a child as it occurs, and wherever it occurs, throughout the entire day; the second, the Settings Record, describes the behavior of the child in a specific habitat. The observational

records are systematically analyzed (and the system is well presented in this volume), and divided into a number of categories or behavior episodes. In this manner, not only can behaviors of specific children be analyzed in terms of their functioning or content, but the character of each environmental situation can also be described. Further, it is possible to describe a habitat in terms of the kinds of behavior it tends to elicit.

Wright presents a comprehensive discussion of the techniques used. He also discusses problems associated with the effect of the observer on the behavior recorded and the reliability of specimen records. Illustrative material is given so that anyone seriously interested in the method should have little difficulty.

Because of the nature of the observational techniques used, the procedure is lengthy, time-consuming, and expensive. The specimen record itself must be recorded, transcribed, read, re-read, and divided into behavior episodes. Since the records are usually lengthy, teams of observers may have to be used and these observers have to be trained. These drawbacks are not insurmountable. As Wright claims, this may be the only way to obtain descriptive information about children as they live in the every-day, real world.

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FELLENDORF, GEORGE (Ed.), *Bibliography on Deafness,* Washington, D. C.: Alexander Graham Bell Association for the Deaf, 1966. Pp. 148. No price.

As the editor states, *The Volta Review* and the *American Annals of the Deaf* are two of the oldest journals for education of the deaf and this is the first index of these publications. The bibliography which may be of interest to readers of the *Cleft Palate Journal* is that pertaining to audiology, speech pathology, and language development, as there are many interesting historical references.

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BRACKHILL, YVONNE, and THOMPSON, GEORGE G. (Editors), *Behavior in Infancy and Early Childhood.* New York: The Free Press, 1967. Pp. 692.

One dictionary's definition of *anthology* is "a collection of choice or representative literary extracts". This volume (subtitled *A Book of Readings,* incidentally) is a wide-ranging collection of research reports and theoretical expositions aimed at serving "... as a useful teaching aid ... a supporting textbook" that will "stimulate student interest" in the enormously diversified area called child development. The reader should

understand the term "student" in its most catholic sense; the editors have provided for the interests of many professionals at many levels.

This variety is reflected in the section headings: Psychophysiological Dimensions of Early Development, Motor Development and Physical Growth, Sensory and Perceptual Development, Conditioning and Learning, From Vocalization to Functional Language, Intellectual Growth, Socialization and the Development of Social Behavior, and Emotional Responses and the Developing Personality. There is, of course, a complete list of the references cited in each of the papers, plus the editors' recommendations for additional readings at the end of each article.

The contents include classics in the field (for example, R. L. Fantz's study of infant's pattern vision and H. E. Burtt's exploration of the relation of early exposure to language to later learning), some of the pioneering studies (for example, A. Peiper's work on pupillary activity in infants), and a number of reports, both quite early and quite recent from Russian and German journals. The current influencers of thinking and research on child development are also represented (for example, Piaget, Bandura). The compilation thus provides not only a survey of the field, but also some historical perspective.

The editors very ably enhance this aspect of the book by their introductory comments to each paper. These summaries frequently point up the significance of the report for work that followed it, its relations to other parallel studies, or its potential application to applied problems with which practicing psychologists are concerned. The book is a concrete demonstration of how complex are the origins and shapers of our humanness; from this viewpoint different sections will pique the interest and stimulate the thinking of such a diverse group as the readers of this journal. The last four sections on language development, intellectual growth, social behavior, and personality development may have the most appeal. Considering the great amount of speculating that has been done about the relations between clefts and the psychological growth of children, these sections, and also such an article as Weisberg's on the conditioning of infant vocalizations, should aid clinicians in sharpening their speculations and putting them to more precise test.

The volume is indeed an anthology of child development writings.

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LEMESURIER, A. B., *Hare-Lips and Their Treatment.* Baltimore: Williams and Wilkins, 1962. Pp. 169. $7.00.

The Preface of this volume clearly sets forth the aims of the author in presenting a purely personal account of his experience covering a pe-

riod of over twenty years. During that time, he limited himself to one type of surgical repair—that introduced by Hagedorn in 1895, with some slight modifications, and 1444 patients were operated on by this technique in the years 1939 to 1958 inclusive. Dr. LeMesurier makes no attempt to describe methods of surgical treatment used by others, and practically everything he says is based on his own personal experience.

Part 1 is devoted to unilateral hare-lips, beginning with a classification of the various grades from complete to minor notches. The operation for each is described and illustrated in detail.

In Part 2, bilateral hare-lips are classified and the treatment of each is described in the same systematic way.

LeMesurier devotes several pages to three important problems connected with bilateral cleft lips. These are:

a) Whether or not a forward displaced premaxilla should be set back by resecting part of the nasal septum, to facilitate closure of the lip over it. His experiences with this procedure have been unfortunate and the premaxilla thus set back failed to grow and come forward in most cases, and the teeth in it decayed early. This procedure was abandoned at the Toronto clinic some years ago. Although the alternative of repairing the lip over the prominent premaxilla gives results that are far from perfect, for the most part they are better than those in cases formerly treated by resection of the septum, and, combined with orthodontic correction, passable results are more frequently achieved.

b) Whether the prolabium should be used to form the central portion of the lower edge of the lip or whether the central portion should be made by flaps turned down on either side and united below the lower edge of the prolabium is best decided by the original vertical height of the prolabium. The advantage of the lateral flap method is that a better lower edge of the lip can usually be obtained. Its disadvantages are that the lip may be made too long and narrow and with growth become still longer, a deformity very difficult to correct. By planning to err slightly on the short side in preparing the lateral lip flaps in the first place, a later lengthening with growth may be avoided and a passable final result obtained. The prolabium can be used satisfactorily for the entire middle portion of the lip only in cases where it is long.

c) Shall the two sides be dealt with at the same operation or at two different operations with an interval between? LeMesurier favors the one-stage procedure as a routine, closing the two sides at one operation and gives sound reasons for this opinion. The author's discussion on these three questions are among the most valuable lessons to be derived from the entire book.

The final chapter is a summary covering the general principles of cleft lip closure and contains valuable hints on specific points of technique from the author's experience.

The Bibliography provides the only specific references to methods of

lip closure by others, but is very complete up to the date of publication of the book. Every surgeon engaged in cleft lip therapy, even though employing methods differing from those recommended by LeMesurier, should derive great benefit from a study of the minute attention to details and the wise counsels of this great master that are to be found throughout the book.

ROBERT H. IVY, M.D., D.D.S.

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ABSTRACTS

Epstein, A. G., Protesebehandling of nyfødte ganespaltepatienter. *Tale og Stemme, 3,* 1966.

279 children with cleft palate were fitted with a prosthesis and obturator at three or four days of age. Control groups were established. The prosthesis appeared to reduce the tendency to colds and otitis, made feeding easier, enabled better sucking function, and reduced the period of hospital confinement for the infants. (Morris)

Huddart, A. G., Treatment procedures in cleft lip and palate cases. *British Dental Journal, 122,* 185–192, 1967.

Presurgical dental orthopedics has been advocated by many treatment centers. This article discusses surgical correction of cleft lip and palate with and without prior dental orthopedics. The overall management is discussed, including regular dental care, orthodontics, and secondary surgical procedures. Emphasis is placed on rapid segmental movement of bone, rather than ordinary orthodontic movement of teeth within bone. Bone grafts are utilized to establish bony union and stabilize the repositioned segments. (Swoope)

Adisman, K. I., Management of esthetic problems in unconventional denture

prosthesis. *Dental Clinics of North America,* 101–114, March 1967.

Prosthetic therapy for individuals with jaw defects generally present a challenge in achieving good esthetic results. This article describes techniques for management of various troublesome conditions, such as "floating" and malpositioned premaxilla, underdeveloped maxilla, absence of various numbers of teeth, poor jaw relationships, and poor tissue such as grafts and cicatrix. A good esthetic result gives the patient improved morale, poise, and a sense of well-being. (Swoope)

Sendax, V. I., An approach to the psychology of dentofacial esthetics. *Dental Clinics of North America,* 3–9, March 1967.

This article provides useful insight into the significance of facial esthetics. It describes techniques for determining the esthetic needs of the patient and making a realistic prognosis. Since many cleft palate patients also pose a problem with facial esthetics, this article will be helpful in gaining a better understanding of the feelings of these patients. (Swoope)

Schmidt-Hurtienne, W., Rehabilitation of cleft lip and cleft palate patients. *Zahnaerztl Welt, 68,* 229–233, 1967.

In cleft palate patients after surgery and orthodontic treatment, the occlusion in posterior teeth is usually satisfactory. In the anterior teeth, esthetics and function can be rehabilitated with telescope crowns and a denture. The denture's buccal wall is so constructed that the upper lip is pushed out for improved esthetics. Similar successful results were also obtained in 2 instances of extreme open bite associated with cleft palate with dentures made of Cr-Co partials. In these 3 patients construction of fixed bridges was contra-indicated because of esthetics. (Kustaloglu/*Oral Research Abstracts*)

Morley, Muriel E., Speech and speech therapy in cleft palate. *Mod Trends Plastic Surg, 2,* 255–267, 1966.

Both vocal tones, produced in the larynx, and articulation, produced mainly in the oral cavity, are modified in a variety of ways in unrepaired cleft palates. If the sounds which are basic to speech (and are defective or absent in patients with cleft palates) become incorporated into spoken language, the speech will be more difficult to correct. Generally, the earlier in life palatal repair is made, the better is the prognosis for the development of normal speech without special speech therapy. Some factors which may interfere with the development of normal speech are dyslalia, articulatory dyspraxia, intelligence level, and hearing. Speech ability remains the only valid test of success in cleft palate surgery or speech therapy or both. With improvement in surgery, the speech therapist has become an assessor of the developing speech and advisor as to need and timing of any speech therapy. There are no absolutely scientific criteria for this determination although measurements of intraoral air pressure, vocal tone and resonance, and articulation can be made. Three types of surgical repair for cleft palate are discussed. In the small percentage of instances where normal speech does not develop spontaneously following surgery, speech therapy is indicated. Speech therapy is also used with adults and adolescents who had badly repaired palates, although in severe instances, further surgery should be considered. (Goren/*Oral Research Abstracts*)

Mugescu, Olga, Matei-Apostolescu, Cornelia, and Kock-Manu, Simona, Care of children with labio-maxillo-palatine cleft. *Munca Sanit, 2,* 85–90, 1967.

Complex treatment of children with cleft lip and cleft palate requires the help

of several specialists working as a team, over a long period. Early surgery is justified by the possibility of offering the children a normal life. Treatment extends thoughout the period of growth, to adulthood, and includes support for psychic development. (Author/*Oral Research Abstracts*)

Pfeifer, G., Morphology of the formation of clefts as a basis for treatment. *Symp Treatment Patients Clefts Lip, Alveolus Palate* (2nd), 14–29, 1964.

To determine a common developmental denominator that could be applied to all types of clefts, 260 newborns and infants with a variety of clefts were examined, and correlations between the embryonic and adult periods are presented. On the basis of the amount of tissue and the extent of vermilion border adjoining the cleft, clefts were classified as either primary or secondary. In primary clefts (a result of nonfusion), the vermilion border extends to the nares, whereas in the secondary clefts (the result of tearing), the vermilion presents little or no superior extension. Support for this classification was derived by studying the course of vessels and muscle fibers adjoining the cleft. The width of the alveolar bony defect is directly related to the number of dental primordia present; the wider the defect the more primordia missing. The shape of the cleft margins, piriform aperture, and the alveolar stumps is also dependent on the number of dental primordia present and the degree of separation in the center of the face. (Aduss/*Oral Research Abstracts*)

Ohlsson, A., Early orthodontic care in alveolar and palate clefts. *Symp Treatment Patients Clefts Lip, Alveolus and Palate.* (2nd), 67–75, 1964.

After briefly reviewing the history and technic of presurgical maxillary orthopedics in the treatment of cleft lip and palate, a description of a modified technic is presented. Surgical closure of the nasal floor precedes orthopedic manipulation. Ten days after this closure, orthopedic alignment is started. The newly aligned segments are stabilized with a bone graft and retaining plate. Later, most of the patients have anterior and some type of buccal cross-bite. The malocclusion is then corrected with a screw plate. (Aduss/*Oral Research Abstracts*)

Fogh-Andersen, P., Incidence and etiology of clefts of the lip, alveolus and palate in humans. *Symp Treatment Patients Clefts Lip, Alveolus and Palate* (2nd), 4–13, 1964.

A review of the incidence, variation in time, and the geographical distribution of cleft lip, cleft palate, and cleft lip and palate, particularly in the Danish population. The incidence of clefts of all types has increased from 1:1000 during the years 1900–1930; 1.6–1.8:1000 from 1930–1960, and 1.91:1000 at the present time. Although some genetic factor would seem to be present for cleft lip with or without cleft palate, this same factor was not evident in pedigrees obtained for cleft palate. A greater incidence of cleft palate was found in the female, and this was genetically distinct from cleft lip and cleft palate which was more common in the male. In considering exogenous etiologic factors only, increased parental age showed a slight increase in patients with cleft lip and cleft palate but not in cleft palate. No direct answer is given for the higher incidence of clefts; however it may be due to greater survival of fertile individuals with clefts, the rising number of child-bearing women with medically controllable diseases, and the enormous increase in the use of drugs of all types. (Aduss/*Oral Research Abstracts*)

Chaudhry, Anand P., Swartz, Sidney, and Schmutz, John A., Jr.,

Effects of cortisone and thalidomide on morphogenesis of secondary palate in A/Hej mice. *J dent Res, 45,* 1767–71, 1966.

The normal closure of the palatal shelves in 85 pregnant A/Hej mice, 3–4 months old, occurred between the 14½ and 15½ day of gestation. A single intraperitoneal dose of 1.25 mg cortisone failed to induce cleft palate, 3.5 mg produced only an incidence of 7.5%. Dosages of 5 and 10 mg cortisone produced 35.5 and 83.2% of cleft palates, respectively, associated with a higher incidence of fetal resorptions. In the control group approximately 3% of the mice had cleft palates unassociated with cleft lip. Thalidomide given doses of 10 and 15 mg intraperitoneally failed to induce cleft palate. (Cohen, Sr./*Oral Research Abstracts*)

Rosenzweig, Sangord, Psychological stress in cleft palate etiology. *J dent Res, 45,* 1585–93, 1966.

To begin to resolve the issue of psychological stress during pregnancy resulting in such congenital malformations as cleft palate, an experimental analysis of the problem with animals was undertaken. Working from already definitive studies in which strain A/Jax mice were injected with cortisone (I), adrenocorticotrophic hormone (ACTH), or cholesterol and in which significant numbers of cleft-palate offspring were produced, avoidance conditioning was used as the stressor. A/Jax mice were used and their use raised some question in relation to the overall validity of the experiment since the A/Jax strain are extraordinarily responsive to I and ACTH. Food and water deprivation and restraint of movement were also stress factors used. With the given limitations of the ability to control all factors, the cleft palate rate was beyond that found in the control group, no matter what stressor was introduced. The degree of importance of each stressor or their interaction could not be determined. The cleft-palate rate, although greater in the control group, was lower than the rate in mice given injections of aforementioned substances noted. (Goren/*Oral Research Abstracts*)

Reep, Barbara, A modified technique for repair of cleft lip and palate. *J. Amer Assn Nurse Anesth, 34,* 44–47, 1966.

A modified nonbreathing technic using a wire-embedded latex rubber catheter with the Ayres T-tube has been described for repair of cleft lip and (in conjunction with the Dingman mouth gag) for repair of cleft palate. This technic has provided a kink-free patent airway and safe administration of anesthesia, as well as an excellent exposure of the surgical area, and proved most satisfactory in 85 instances of lip and palate repair. (Nanda/*Oral Research Abstracts*)

Schmid, E., New possibilities for surgical closure of severe defects in the palate and alveolar ridge. *Deutsch Zahnaerztl Z, 21,* 134–139, 1966.

The use of cartilage as a filling material in instances that required plastic repair of extensive palatal and alveolar ridge defects has been tried on 3 patients. Cartilage disks were inserted under the mucosal margins in the defect and covered with a flap grafted from adjacent oral mucosa. In this manner, a junction was obtained between the marginal mucosa of the defect and that of the graft. The contraction of the mucosa was minimal, and the vascularization of the graft was largely improved. Radiographic examination and vitality tests were carried out a year later and confirmed the successful results. In one patient with a very extensive palative defect there was a 2nd filling carried out 3 yr after the 1st graft, as a result of which the patient's speech returned al-

most to normal. (Eisenberg/*Oral Research Abstracts*)

Laico, Jaime E., Simplified compound bilateral harelip operation to avoid whistling deformities of the prolabium. *Philipp J Surg, 20,* 250–258, 1965.

The vomer is split in an operation of a compound or alveolar bilateral cleft lip. A U-shaped piece of vomer is cut. The gap is then approximated and the incisions of the premaxillary process are each snugly tied together with the adjacent tooth of the lateral side, using a number 20 cotton thread, thereby bringing the premaxillary process into perfect alignment with the teeth of the upper jaw. In the same setting, the prolabium below the trapezoid is cut partially and inverted as is done for a simple bilateral cleft lip. The lateral flaps are peeled off mucosa or skin. These peeled portions are buried under the approximated vermilion as roof and the inverted prolabium as floor, forming the stuffing in the middle portion and making up for the lack of soft tissue under the vermilion. (Macasaet/*Oral Research Abstracts*)

Stellmach, R., Observations on the deciduous dentition tooth survival in operated cleft patients. *Deutsch Zahnaerztl Z, 20,* 657–660, 1965.

In 38 children, 4–7 yr of age, with surgically repaired clefts of lips, alveolus, and palate, the dental findings were evaluated in relation to the development of the jaw, the incidence of caries, and dental care. The average age of the 38 children examined was 5.5 yr, and the caries index was 6. The caries index in a control group of children of similar age was 7.45. Lauterstein and Mendelsohn found a caries index of 8.01 in 285 children (9 yr old) with cleft lip and palate, compared to a caries index of 7 found in children from the USA of the same age. There is no difference in caries incidence between normal children and children operated on for cleft lip or palate. The operated children received less dental care than the children from the control group. The reasons for this difference are discussed; the importance of early treatment and the instruction to be given to the parents are stressed. (Menczel/*Oral Research Abstracts*)

Quigley, L. F., A comparison of air-flow and cephalometric techniques for evaluation of normal and cleft palate patients. Part I. *Amer. J. Orthod., 53,* 423–443, 1967.

This study makes an effort to evaluate pharyngeal competence by utilizing the hot-wire anemometer to correlate air flow with cephalometric radiographic analysis under certain fixed conditions of rest and function. Velum to pharyngeal wall distance shows the expected decrease in size during speech and blowing, while the uvula to pharyngeal wall distance does not show the same reduction. There was no significant difference between normal and cleft palate patients in the production of maximum air flow as measured with a facial mask. Measurements with an oral mask indicated significant differences in air flow for the "i," "u," and "a" sounds. This was not the case when the vowels were combined with consonants. With the nasal mask there were significant differences in air flow for almost all vowels and phrases studied. Correlations of air flow and cephalometric measurements were not exceptionally high. The velum to pharyngeal wall measurement at rest gave the best correlation with the air flow data. The nasal and facial anemometers were of more value than the oral anemometer in correlation with the cephalometric roentgenogram to measure palatopharyngeal function. The author concludes that the nasal anemometer is an excellent clinical

tool for measuring nasal air leakage. (Luban)

Poradowska, W. and Jaworska, M., Genetic study of congenital clefts of the palate; analysis of 546 cases. *Acta Chir. Plast., 9,* 85–103, 1967.

This study is concerned with the family history of 546 children who were born with cleft anomaly. It was shown that direct hereditary transmission probably plays a minor role in the etiology of cleft anomalies. There is a higher risk of cleft defect appearing in the offspring when the mother or maternal relatives are affected. Older mothers, 35 years or more, were found to be more numerous than controls only in combined clefts of the primary and secondary palate. Older fathers were more numerous than controls for clefts of secondary palate and also combined clefts of primary and secondary palate. These differences are statistically significant. A high incidence of associated malformations was recorded in clefts of secondary palate only and the difference from other groups of clefts is statistically significant. None of the cleft defects were found to be a component of a syndrome definitely formed by a recessive gene. Problems of syndromic relationship is discussed; it deserves further investigation and may be helpful in the research studies on the etiology and mechanisms of cleft anomalies. (Ashley)

Peterson, Sally J., Conductive hearing loss in cleft palate patients. *Ill. med. J., 130,* 63–69, 1967.

Critical analysis of the literature regarding conductive hearing loss in cleft palate patients revealed an acute lack of definitive research and several areas in which there had been a lack of agreement among authors, namely: 1) the percentage of cleft palate patients that may be expected to have a conductive hearing; 2) the incidence of conductive loss as a function of the age of the patient; 3) the relationship between conductive loss and the type of cleft present; 4) the physiological mechanisms responsible for middle ear infections and consequent conductive impairment in these patients; and 5) the incidence of conductive loss as a function of the physical management of the cleft. The available information on conductive hearing loss in cleft palate patients may be summarized as follows: 1) The incidence of hearing loss in patients with clefts is greater than that found in similar groups of normals; 2) The most common type of loss is a bilateral conductive loss; 3) Variation of hearing acuity as a function of age has not been fully documented, although most authors agreed that such variation exists; 4) There was a lack of agreement as to the relationship between hearing and the type of cleft; 5) No definite relationship has been established between hearing and the severity of the primary deformity; 6) There was a lack of agreement as to the relationship, if any, between hearing and the physical management of the cleft. There was some evidence that the incidence of hearing loss was lower in surgically-treated patients than in those treated by prosthetic means; however, there was some doubt as to whether this relationship remained constant. On this basis, no conclusions could be drawn about the importance of intact palatal musculature in preventing middle ear infections; 7) A minimal amount of evidence was available supporting the advantage of surgical closure of the palate with lengthening of the existing mucoperiosteal flaps over closure without lengthening in the effort to prevent middle ear disease; 8) The relationship between hearing and the age of the patient at the time of surgery was not clear, although there was some evidence that the earlier the closure the better the hearing. (author)

Massengill, R., and Bryson, M., A

study of velopharyngeal function as related to perceived nasality of vowels, utilizing a cinefluorographic television monitor. *Folia Phoniatr., 19,* 45–52, 1967.

This study investigated the physiological and acoustical aspects of speech as related to various stages of velopharyngeal closure. Cinefluoroscopic films and synchronized tape recordings were made of vowel phonations of ten adult subjects previously diagnosed as having no speech problems. Each subject attempted to simulate varying degrees of nasality while producing the vowels /i/, /ae/, /a/, and /u/. During these phonations, the movements of the velum were observed via a television monitor connected to a Philips cinefluorographic unit. Each vowel phonation was judged by ten students from a speech class at Duke University as being either extremely nasal, moderately nasal, or normal. The statistical analysis dealt with the size of the velopharyngeal opening and the nasality ratings of the ten judges. It was concluded that, as the velopharyngeal space increased, the vowel phonations were rated as being nasal. In some instances judgments of nasality were made even though complete velopharyngeal valving was observed. Also, some vowels were rated as being normal in the presence of as much as an 8 mm opening between the velum and posterior pharyngeal wall. (Mason)

Kratz, R. C., The template technique for cleft lip repair. *Arch. Otolary., 86,* 118–120, 1967.

Many methods of repair of unilateral and bilateral cleft lips have been devised through the years. The author feels that his results are better when Tennison's method is used for unilateral cleft and the Veau III operation for bilateral clefts. But, in nearly all his cases, the template technique was used. He feels that use of this technique lessens the degree of guess work in repair, enables the surgeon to better plan the operation prior to surgery, decreases anesthetic time and is of great value in a teaching program. A full-faced, life-sized, exactly to scale photograph is taken of the patient preoperatively. Measurements and drawings are made on the photograph, following which templates of the pattern are made from fine wire or from x-ray film. The template is sterilized prior to surgery and the design can be transferred directly from the template to the patient's skin with marking dye at the time of surgery. The measurements are all carefully checked on the skin and then the actual repair is carried out. Several points are re-emphasized by the author in the use of the Tennison and Veau III techniques. (Barnes)

Coccia, C. T., and Bixler, D., Cleft lip, cleft palate, and congenital fistulas of the lower lip. *Oral Surg., Oral Med. Oral Pathol., 24,* 246–250. Aug., 1967

A 20-year-old boy with the above mentioned anomalies was examined and a pedigree taken. Their studies tend to weaken the notion that "clefts" and "pits" are variants of expression for a single gene as was originally expressed by Van der Wonde. They emphasize the need for a collection of all available families with the two traits in order that single gene action and linkage might be clearly established. (Ashley)

Badrawy, R., Mid-line congenital anomalies of the nose. *J. Laryng. Otol., 81,* 419–429, 1967.

The author has presented an illustrated discussion of six cases having congenital defects involving the midline of the nose, accompanied by an hypothesis to explain their origin. The cases presented showed abnormalities ranging from midline fissures, cysts, and fistulae in the nose to a bifid nose. In one case reported there was

a concomitant abortive midline cleft lip defect. As cause for the midline congenital nasal defects it is suggested that in the development of the fronto-nasal process there is a cephalad-caudad in-folding of this process which narrows the fronto-nasal process, approximates the sides of the nose, deepens the nasal fossae, and creates a septum having bilateral representation. If there is defective fusion of the sides of this invaginating fold, midline defects in the septum or the nose itself may occur. It is noted that bilateral origin of the nasal septum is described in the conventional discussions of its development by tectoseptal extension of the maxillary processes and fusion in the midline. The author interprets the tectoseptal extensions as a midline folding of the fronto-nasal process along with the mesodermal tissues lying between it and the brain, and suggests that the congenital anomalies discussed add supporting evidence to his hypothesis as to their origin. (Gregg)

Arkebauer, H. J., Hixon, T. J., and Hardy, J. C., Peak intraoral air pressurer during speech. *J. speech hear. Dis., 10,* 196–207, 1967.

A review of the literature reveals a relationship between the magnitudes of intraoral air pressure developed during consonant production and the frequency of misarticulations by speakers with cleft palate. These findings have led to the suggestion that the problem of cleft palate speech may be primarily the result of an inability to produce adequate intraoral air pressure. In this study the authors recorded peak intraoral air pressure during speech acts for 10 children and 10 adults, using a polyethylene tube positioned in the oral-pharynx. The results, very similar to other data previously reported in the literature, showed that: (1) voiceless consonants result in higher peak intraoral air pressure than voiced cognates; (2) voiceless plosives usually result in greater intraoral air pressure than voiceless fricatives, but voiced fricatives have greater pressure than voiced plosives; (3) greater intraoral air pressure was associated with consonants in the intervocalic position as compared with the same consonants in either the pre- or postvocalic positions; and (4) increases in the level of speech intensity resulted in increases in intraoral air pressure. The authors concluded by suggesting that "impounding relatively high peak intraoral air pressures may not be the crucial problem of the speaker with a cleft. Rather, maintaining kinetic aerodynamic energy within the oral cavity over the time necessary to produce a continuant consonant may be the more significant problem." (Fricke)

Muma, J., and Brown, B., Removing segments from a speech sample. *J. speech hear. Dis., 32,* 121–125, 1967.

The authors describe a method of extracting phonetic segments from a continuous speech sample using a sound spectrograph. The method requires a knowledge of the ratio of the circumference of the record-playback track to the circumference of the display drum. The speech sample (limited to 2.4 seconds for most spectrographs) is recorded in the normal manner to arrive at a Type 1 visual reproduction. After finding the phonetic unit that is desired by inspection of the visual tracing, it is possible to erase all of the other acoustic information, exclusive of this desired phonetic element. This is done by manually rotating the record-playback disc through a fraction of one complete revolution, with the record control switch in the "On" position and with zero amplitude. The remaining phonetic element can be either re-recorded directly from the playback head, or the phoneme can be visually reproduced, exclusive of the other acoustic information which has been excised. The

most important limitation to this method of extracting phonetic segments is in the limited fidelity range of the sound spectrograph. (Fricke)

Owsley, J. Q., Chierici, G., Milles, E. R., Lawson, L. I., and Blackfield, H. M., Cephalometric evaluation of palatal dysfunction in patients without cleft palate. *Plastic reconstr. Surg., 39,* 562–568, 1967.

This is a further contribution to the study of patients with cleft palate speech but without cleft palate. Having previously reported on 31 such cases, data are now added on 56 additional patients of whom 40 were studied by means of cephalometric X-rays. Measurements obtained in this way were compared with 292 patients in a normal control group with subgroups roughly matched for age. In addition to the comparison of the cleft speaker and normal group, further comparison was made between the normal group cephalometric measurements of hard and soft palate and depth of nasopharynx, and similar studies previously done in other normal patients using cinefluorographic films. In regard to this latter point, considerable discrepancy existed both in the mean values and the 2 S.D. values of the length of the hard palate as judged from the two techniques. This seemed related to the greater ease of identifying the anterior spine on the cephalometric films. There was good agreement in the mean figures and ranges for the soft palate length measurements. Mean figures for nasopharyngeal depth were equivalent in the two groups but the 2 S.D. figures were greater in the cephalometric study. A specific attempt was made to develop more adequate ways of recording nasopharyngeal air space in addition to nasopharyngeal depth. 96 children with films taken at age 6, 9, and 12 years were studied. The lines measured on the cephalometric X-rays are diagramed. Based on these studies the authors proceeded to classify their 40 patients with cleft palate speech. 19 were grouped under the heading "neuromuscular palatal dysfunction"; 5 were in the category of "short soft palates"; 6 fell into the category of "excessive depth of nasopharynx"; and 10 were in the group termed "excessive nasopharyngeal air space." This last heading appears to represent a refinement of the authors' previous groupings of the cleft palate speakers without cleft palate. In each group, it should be noted, some patients showed some aspect more typical of a category in addition to that characterizing their own. A brief section regarding treatment records the impression that patients with anatomical abnormalities have shown no significant improvement in velopharyngeal closure with speech training but that after surgical correction speech improvement overall is most rapid in those patients who have had preoperative speech therapy. (Cosman)

Pitanguy, I., and Franco, T., Non-operated facial fissures in adults. *Plastic reconstr. Surg., 39,* 569–577, 1967.

A wide variety of facial clefts is discussed and depicted. Among these, 40 adult cases of unoperated cleft lip and/or palate were identified and compared to 40 non-cleft patients and 40 early operated cleft patients. The comparison was on the basis of a simple cephalometric study. Only the most general impressions of this analysis are presented. It would appear that all the individuals with unoperated clefts had some degree of maxillary protrusion but less so than similar cases seen in childhood. (Cosman)

Buchholz, R. B., Chase, R. A., Jobe, R. P., and Smith, H., The use of the combined palatal pushback and pharnygeal flap operation: a progress report. *Plastic reconstr. Surg., 39,* 554–561, 1967.

The authors present a five year experience with the procedure of palatal pushback combined with a pharyngeal flap attached to the palate so as to cover the nasal raw area while leaving the posterior soft palate free to move. 47 patients have been so treated, including 21 secondary cleft palate cases, 12 with primary velopharyngeal disproportion and/or paralysis, 10 with postadenoidectomy rhinolalia, and 4 with submucous clefts. While a standard series of tests including respiratory studies and cinefluorographic evaluations are said to have been performed in all patients, precise details of the results are not given. Of the 47 cases, 26 now have little or no detectable nasal emissions; 20 are improved but are too early post operation for final assessment. The one failure occurred in a patient with palatal paresis of unknown etiology. (Cosman)

Santoni-Rugiu, Paolo, La ricostruzione della arcata alveolare con lembi periostei nella labiognatopalatoschisi completa (Reconstruction of maxillary arch with periosteal flaps in complete cleft lip maxilla and palate). *Bollettino della Societa Medico Chirurgica di Pisa, 34,* 1–7, 1966.

After a review of the various methods used to correct the defect of the maxillary arch in complete cleft palate, the author explains the often occurring failures on the bases of the peculiar osteogenetic development in facial bones. The author, after a detailed description of the Skoog's method which utilizes local periosteal flaps, reports the results of his own seven cases. All the cases were clinically recovered in seven days and radiological and clinical checkings regularly performed every 30 days. At the end of the third month after surgery a noticeable amount of radioopaque tissue between the two alveolar segments was shown in all the cases. The author recommends the Skoog's method in order to minimize failures and as the one offering the best chances to obtain a kind of bone closest to normal as far as structure, function, and osteogenesis of the face are concerned. (Bertocchini)

Bertocchini, Mirella, Del Carlo Giannini, Giula, and Santoni-Rugu, Paolo, Alcuni aspetti neuropsicopatologici in un gruppo di bambini affetti da palatoschisi con particolare riguardo all'epoca dell-intervento chirurgico e ai problemi della riabilitazione (Some psychological aspects in cleft palate children with particular emphasis to surgery timing and rehabilitation problems). *Neopsichiatria, 32,* 453–491, 1966.

The ever-growing interest for child psychiatry and its various aspects in Italy has finally led to a meeting point between the specialists of this branch and the plastic surgeon. This study resumes a selection of a two years activity planned on the pattern of U. S. Cleft Palate Centers. The authors examine, in constant cooperation with the surgeon, the psychological findings in three different groups of cleft palate children. In the first group are early operated children receiving early speech therapy (starting generally at two years to two years, six months of age), whose families have been followed with early and constant casework; in the second group are children later operated (never before one year of age for cleft lip, and never before three years for the palate); and a third group (two cases) not yet operated at seven years. Results are discussed on the basis of different psychological and intellectual findings. The authors conclude that early surgical operation, followed by as early as possible speech therapy, together with attentive casework on the family, bring closest to the ultimate objective which is complete social rehabilitation for cleft palate patients. (author)

Baumgartner, P., and Maeglin, B.,

The primary and secondary osteoplasty in the surgery of the cleft palate. *Schweiz Med Wschr, 96,* 883–887, 1966.

A review of the surgical management of cleft palates discusses the nature and merits of early orthopedic regulation by method of McNeil, and the primary and secondary osteoplasty of the cleft palate. (Graf)

Bethman, W., The Thallwitz principles in the treatment of cleft lip, palate, and jaw. *Acta Chir Plast (Praha), 8,* 40–44, 1966.

7,000 patients have been treated at the Thallwitz clinic. The clinic's position regarding surgical methods, management of speech problems, and rehabilitation of cleft lip and palate patients are reviewed. Orthodontic procedures and collaboration with pediatrician are discussed as are the chronological aspects of rehabilitation. The organization of a specialized school for cleft children is described. (Cervenka)

Koch, J., The terminology of cleft lip, jaw and palate. *Acta Chir Plast (Praha), 8,* 45–52, 1966.

Clefts are allotted to four groups. Group A (primary palate defects) includes two subgroups and each of the subgroups includes three subdivisions. Group B (secondary palate defects) includes two subgroups and each subgroup has three subdivisions. Group C (primary and secondary palate combined defects) consists of two subgroups. The subdivisions express the measurable extent of clefting of the particular structures as lip or palate. For reasons of precise documentation, the shape and the extent of the cleft is also drawn into the predetermined scheme. (Cervenka)

Naruke, J., A cephalometric radiographic study on speech disorders in postoperative cleft palate patients. *Shikagakuho, 67,* 180–221, 1967.

Lateral cephalograms were taken in 80 postoperative cleft palate subjects and 80 control subjects, while they were phonating Japanese vowels and at rest. Some anatomical distances were measured on the traced paper and were related to the characteristics of cleft palate speech. Compared with the control subjects, the cleft palate patients showed; a) poorer velopharyngeal function, b) lower position of the highest point of the tongue, c) that those whose velopharyngeal opening exceeded 4 mm revealed poorer articulatory performances, and d) that the greater the amount of soft palate elevation, the better the articulatory performances. It is concluded that speech disorders in cleft palate cases are chiefly caused by maldevelopment and poorer movements of articulatory organs. (Machida)

Nagai, I., Machida, J., and Matsuya, T., Review of literatures on physical characteristics of air during speech production of cleft palate cases. *J. Japanese Stomatological Society, 16,* 259–266, 1967.

In the problems of cleft palate speech, the researches of the physical characteristics of air during speech production, such as air flow rate and air pressure, are very important. When these characteristics are studied in connection with articulatory patterns, they may provide useful information about the diagnosis and treatment of cleft palate speech. Once blowing ability measured by a spirometer had been widely adopted as an index of such characteristics. However, recent developments in electronic technology have made great progress in the techniques of measuring such characteristics, and they can be measured much more accurately. Studies on such characteristics are reviewed in the present paper under the topics of; blowing ability, volume and rate of air flow during phonation, air pressure during phonation, and the relationships of these characteristics to articulatory movements. Also discussed are the development of the

apparatus, status of recent studies, and the way of further experiments. (Machida)

Nagai, I., Masuyama, Y., Kozaki, T., Fujimoto, T., Kiyohara, H., Fujimoto, K., and Machida, J., Statistical analysis of patients with congenital cleft lip, alveolus and/or palate at the Osaka University Dental School Hospital. *J. Japanese Stomatological Society, 16,* 319–325, 1967.

2191 cases with cleft of lip, alveolus and/or palate, who visited Osaka University Dental School Hospital from 1955 to 1962, were analyzed following the morphological classification proposed by the Nomenclature Committee of the American Cleft Palate Association. Following are some of the results; a) types and numbers are: cleft of lip, 268 (12.2%), cleft of lip and alveolus, 397 (18.2%), cleft of palate, 424 (19.5%), cleft of lip, alveolus and palate, 1099 (50.2%), and medium cleft of upper lip, 3 (0.2%), b) cleft of lip, alveolus and palate are found more frequently in males, and cleft of lip and cleft of palate are found more often in females, and c) unilateral cleft of lip, and that of lip and alveolus, are found more frequently in the left side. (Machida)

Spina, V., and Zaputovich, V., Tratamento das deformidades nasais no labio leporino bilateral (Nasal deformities treatment in bilateral cleft lip). *Rev. Hosp. Clin. Fac. Med. S. Paulo, 21,* 129–132, 1966.

The authors present three cases of nasal deformity in bilateral cleft lip. The surgical repair was that of Cardoso-Cronin technique, adding a graft of costal cartilage in the subseptum with the purpose of elevating the nasal tip and giving better consistency to the columella. (Spina)

Marino, H., and Rabinovich, J. S., Injerto libre de tejidos labiales (Free skin grafts of lip tissues). *Revista Latino-Americana Cirurgia Plastica, 11,* 2–7, 1967.

The authors report their experience in the correction of the hare-lip secondary deformities employing lower lip segmental grafts, according to Flanagin's technique. Important details of the corrective procedure are emphasized. Troncular or general anesthesia is preferred, since the local vaso constructive effect of epinephrine could delay the graft revascularization. Scars from previous operations are removed in order to obtain normally bleeding edges. Hemostasis of the major bleeders is carefully secured, and capillary bleeding is controlled by digital pressure. The graft is obtained with atraumatic techniques avoiding the use of instruments, and it is maintained in the receptor area with few fine silk stitches. No dressing is applied on the surgical wound. Minor necrosis of the central area of the graft was observed in two of the four cases operated on, but the final results were not compromised. (Spina)

ANNOUNCEMENTS

Time and Place, ACPA

1968—April 25, 26, and 27.....Miami Beach at the Deauville
1969—International Congress, April 14, 15, 16, and 17.....
Houston at the Shamrock
1970—April 16, 17, and 18.....Portland at the Hilton
1971—date unspecified.....Pittsburgh
1972—date unspecified.....Salt Lake City

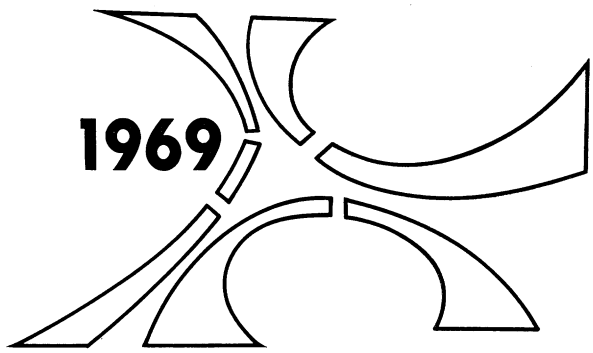
A postgraduate course in maxillofacial injuries will be given at The University of Iowa, Department of Otolaryngology and Maxillofacial Surgery, May 13–18, 1968. Limited to 14 otolaryngologists, preferably those engaged in academic practice, the course will deal with the immediate and delayed treatment 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 $250.00. Apply to: Leslie Bernstein, M.D., B.D.S., Associate Professor, Department of Otolaryngology and Maxillofacial Surgery, The University of Iowa, Iowa City, Iowa 52240.

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.

NECROLOGY

William C. Huffman: October 12, 1967

About the 1969 International Congress on Cleft Palate



In this issue we are introducing the Congress insignia which was developed by medical artists of the University of Pennsylvania Medical School. It will appear on all of our future brochures and on the Congress program. Many of you will recognize that it is an adaptation of the insignia developed last year by Dr. Stephen P. Forrest and his Committee to honor the 25th anniversary of the establishment of the Association. We think the insignia will add a distinctiveness to the Congress and we hope that you like it.

The Secretary General and the Assistant Secretaries General met in Pittsburgh in September to continue planning for the Congress. A wide range of topics was covered, from the continuing expansion of the master time table to the average number of cups of coffee we can expect each Congress participant to drink daily during the sessions.

At the moment our efforts to publicize the Congress are concentrated chiefly on our contacts abroad. And not without some success. Already we are getting mail from correspondents from overseas who indicate that they are planning to see us in Houston. In this regard we have developed a very attractive Congress banner and some hand-out brochures to go with it. If you are planning a trip to a professional meeting abroad in the near future, please contact Dr. Betty Jane McWilliams and offer to carry the banner and some brochures with you. We even have a simple and attractive carrying case for the banner. We need you as publicity agents.

Dr. Peter Randall is moving ahead in the planning for the Congress program. It is now definite that a colloquium will be scheduled during one of the evening sessions. This event will feature designated discussion leaders seated at small tables, a cash bar, and lots of shop talk and good fellowship. It is just one example of our concerted attempt to make sure that there is ample time for an exchange of views in depth with our colleagues from other countries.

Dr. Donald Warren has made final arrangements with one of the top translating services in the country to make sure that the Congress papers can be easily understood by all. He and his committees are also soliciting commercial exhibitors for demonstrations of the latest equipment, books, and supplies. His group is also seeking commitments from individuals and professional groups for scientific exhibits. Another way to make this Congress more than a routine professional meeting. Please contact Dr. Warren if you have names to suggest for either commercial or scientific exhibits. Better still, how about offering to prepare a scientific exhibit of a table clinic yourself?

The Secretariat is one of the most dedicated groups with whom I have ever worked. We think you are with us but, as a group, you are painfully silent. Are we doing all right? How can we do better? What are we forgetting? Please don't tell us after the fact, but tell us now, when we still have time to make changes and additions. May we hear from you?

D. C. Spriestersbach, Ph.D.

Secretary-General
Old Capital
Iowa City, Iowa 52240

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Correspondence pertaining to the Association should be addressed to the Secretary: Dr. Kenneth R. Bzoch, Department of Communicative Disorders, College of Health Related Professions, University of Florida, Gainesville, Florida 32601.

Changes of address and subscriptions to the Cleft Palate Journal *should be addressed to the Treasurer: Dr. Howard Aduss, 808 S. Wood Street, Chicago, Illinois 60079.*

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AMERICAN CLEFT PALATE ASSOCIATION

Information for Applying for Membership

The Association was organized in 1940 with the following objectives:

1. To encourage scientific research in the causes of cleft lip and palate.
2. To promote the science and art of rehabilitation of persons with cleft palate and associated deformities.
3. To encourage cooperation among, and stimulation of, those specialists interested in the rehabilitation of cleft palate persons.
4. To stimulate public interest in, and support of, the rehabilitation of cleft palate persons.

The Association publishes the *Cleft Palate Journal* quarterly. The Association's Annual Meeting includes sessions devoted to the presentation of papers in medicine, dentistry, speech, and related areas concerning the problems in individuals with cleft lips and palates.

To be qualified as a member of the Association, the applicant must be in good standing in the professional organization representing his major or clinical orientation. He must be accredited in his professional field, and he must have displayed an interest in the rehabilitation of cleft palate persons. The above statement has been interpreted to mean that those applicants trained in Speech Pathology and Audiology must hold at least basic certification from the American Speech and Hearing Association at the time of the application.

The person shown as sponsor on the application must be a member of the Association and must write a letter attesting to the fact that the applicant is eligible for membership.

Send applications or requests for further information to:

DR. VERNER V. LINDGREN
Chairman for Membership
American Cleft Palate Association
808 Medical Arts Building
Portland, Oregon 97205