BOOK REVIEWS

THOMPSON, JAMES S., and THOMPSON, MARGARET W., *Genetics in Medicine*. Philadelphia and London: W. B. Saunders Company, 1966. Pp. 300. $7.50.

"Genetic research is alive with excitement and revolutionary advances, important for the development of science and to the evolution of social structure. Genetic thought is widening its impact on many areas," among them biochemistry, developmental biology, and medicine. These are words of an introduction to another of the many genetic texts written by Sigmund R. Suskind and P. E. Hartman. I have on my desk not less than nine books on genetics which have appeared since 1960. Their titles read: Principle of Human Genetics (Stern, 1960), Medical Genetics (Lenz, 1961), Human Heredity (Carter, 1962), Counseling in Medical Genetics (Reed, 1963), Introduction to Medical Genetics (Frazer-Roberts, 1963), Kurzes Handbuch der Humangenetik (Becker, 1964–1966), Genetics for the Clinician (Clarke, 1964), Human Genetics (McKusick, 1964), Genetics and Disease (Knudsen, 1965), and Moderne Genetik Probleme (Rossi, 1966). All of them make their specific contribution to the exploding knowledge of genetics and the same is to be said of the text to be reviewed here, by J. S., and M. W. Thompson, from the University of Toronto and the Hospital for Sick Children, Toronto, Ontario. It is the aim of this book to introduce the medical student to the principles of genetics as they apply to medicine. The text is divided into fifteen chapters and contains a glossary of genetic terms as a welcome addition to readers not initiated in the professional jargon. At the end of some chapters a few references, which are pertinent to the respective text, and some didactic questions are added. Moreover, a good list of references is given at the end of the book. A short discussion of the physical basis of heredity and molecular genetics is followed by chapters on patterns of transmission of genes and traits and by biochemical genetics. The principle of single major gene and polygenic inheritance are briefly but understandably presented. Only seven pages are devoted to the rapidly growing field of the inborn errors of metabolism, while a lucid and extensive presentation of the hemoglobins and protein synthesis, blood group and serum proteins, immunogenetics, and pharmacogenetics is given. Cytogenetics is dealt with in the next two chapters and emphasis is given more to the basic pathophysiology of chromosomal aberrations than to their clinical aspects, which are treated rather casually. It may be mentioned here that X trisomic women may have children with an aneuploid karyotype although aneuploidy is less frequent than in

offspring of mongoloid women. The Lyon hypothesis is very well explained. Although it is presently accepted usage to include a chapter on dermatoglyphics in a genetic text, the authors are critical enough to withhold any opinion of its final significance for the medical geneticist. The elements of mathematical genetics are presented without transgressing the boundaries of the biostatistician's domain. A final chapter deals with problems of genetics in medical practice and public health.

The text is lucidly and well written. Its didactic value is indisputable. It holds what it promises. It is an introduction for the medical student (I would say preclinical student), and gives exactly the information he needs. The book as a basic text is of value for the clinical student and clinician as well. In this respect, it complements very well some of the more clinically-oriented texts which have been mentioned at the onset of this book review. The book belongs in the library of every medical student and physician.

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LAUTERSTEIN, AUBREY M., and BARBER, THOMAS K., *Teeth: Their Forms and Functions*. Chicago: D. C. Heath and Co., 1965. Pp. 153. $1.32.

This book is one of the volumes comprising the Science Resource Series of its publisher and is printed as a paperback. Apparently the book is intended for use as a high school text and, as such, represents an admirable attempt to present a complex subject in a simple, understandable manner. The title is rather misleading since Lauterstein and Barber have, for all practical purposes, written a capsule review of the scientific foundations of dentistry.

Although the book is in paperback format it has been carefully produced. It is printed on high quality paper, the type style is easy to read, and it is plentifully supplied with excellent illustrations. The original drawings in the book are by Dr. Barber, who is to be commended for their clarity and usefulness as teaching aids.

The authors have wisely emphasized the importance of understanding the basic sciences which are the foundation of modern dental science. Oral physiology, developmental anatomy, and current research are given generous coverage. Descriptions of actual dental procedures are wisely kept to a minimum and are limited to generalized discussions.

This book can be highly recommended as a basic text on dentistry for high school students. But, because it is a book of this type, it contains many oversimplifications of complex problems. In addition, the use of scientific terms which might be unfamiliar to the young student has made it necessary for the authors to include many definitions which could seem condescending to the more knowledgeable. However, if the reader

is willing to overlook these features, and understands that this volume is but an introduction to the dynamics of the oral cavity, it could be a useful text for the adult lay reader who wishes to become better informed in this area. The term lay reader in this context would refer to anyone not specifically trained in dentistry.

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GORLIN, ROBERT J., and PINDBORG, JENS J., *Syndromes of the Head and Neck*. New York: McGraw-Hill Book Co., 1964. Pp. 580. $18.50.

A new interest in rare syndromes—probably kindled by the development of genetics and cytogenetics in recent years—has arisen. Many of the syndromes consist of a peculiar association of various signs and symptoms, which rationally are difficult to relate to each other and which, therefore, in their total picture are not easily remembered. Descriptions of these syndromes are widely dispersed throughout the medical literature and are difficult to find if a quick orientation is needed (for example, if the physician is confronted with these cases during a busy clinic day). Many practitioners and clinicians have felt for a long time the need of a reference book which is illustrated with typical pictures and which gives a short description of the various conditions. Such a book is now available. The authors, R. J. Gorlin from the University of Minnesota and J. J. Pindborg from the Royal Dental College in Copenhagen, Denmark, both particularly qualified by their perennial interest in rare syndromes, have made the commendable effort to compile information of syndromes in which the structures of the oral cavity, the face, the facial appendages and the neck are involved. Over a hundred syndromes are analyzed and at least fifty more are mentioned under differential diagnosis. During the process of data collection, several new entities became apparent to the authors, such as focal dermal hypoplasia, oculodentodigital dysplasia, orodigitofacial dysplasia. Other syndromes, such as the Cornelia de Lange syndrome (homo Amstelodamensis), have presumably to wait for the second edition.

The syndromes are arranged in alphabetical order, since any systematic classification of the material would have to be incomplete. Synonyma are given as subtitles. Each syndrome constitutes a separate chapter. Some of them are rather short, others present the material more extensively. The authors intend to discuss neither etiopathogenesis nor therapy exhaustively. Their main emphasis is the description of the clinical manifestations, which is advantageously subdivided into such manifestations as oral, ocular, auricular, facial, cranial, musculo skeletal, and CNS. The descriptions of the orofacial manifestations are excellent. A great number of signs and symptoms concerning organs and structures

other than those of the head and neck are listed perhaps somewhat indiscriminately. Various conditions associated with facial, labial, and palatal clefts are discussed extensively (pages 96–138). Several hundred illustrations enrich the book's content. They are chosen in part from the impressive case collection of the authors, others in part carefully selected from publications of other observers. The differential diagnosis is kept short and often lists only the name of conditions with similar manifestations. A statement regarding genetics and laboratory aids is found in most chapters. Several tables on the frequency of oral and general congenital anomalies, interorbital distances, circumferential head measurements, and tooth development and eruption are added.

Minor discrepancies may be omitted in a later edition. In Chapter 36: Cyclopia, Cebocephalia, and Arrhinencephalia, the authors emphasize that chromosome counts have been normal in these conditions (page 180), yet arrhinencephalia is listed as a manifestation of Trisomy D′ on page 80. Since this book was written, it has been found also in partial deletion of the short arm chromosome 18. On page 66 the terms *simian feet* should probably read *simian line*. The reviewer is now aware that a single crease of the fifth digit is found in 80% of the cases with Trisomy 21.

The great value of the book lies in the compilation of a wealth of information, which lends itself to a quick orientation. The physician in quest of a diagnosis will find it helpful to skim through the book and to compare its illustrations and descriptions with his own observations. If he wishes to penetrate deeper into a given condition, he will find an extensive list of references after each chapter amounting *en toto* to over 2,500 references. The book certainly belongs in the bookshelves of the physicians interested in syndromes and in every medical library.

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LUCHSINGER, RICHARD, and ARNOLD, GODFREY E., *Voice-Speech-Language*. Belmont: Wadsworth Publishing Co., 1965. $22.00.

This book was originally published under the title *Lehrbuch der Stimmund Sprachheilkunde* (Textbook of Voice and Speech Habilitation). A second edition appeared in 1959. *Voice-Speech-Language* is the result of the translation from the German of the second edition, which appeared in 1959, and of extensive editing, rewriting, and amplification of that work. The new English edition is an impressive volume that is broad in scope, comprehensive in coverage, and adaptable for use by many different specialists concerned with 'clinical communicology'.

The book is divided into two major sections. The first is entitled 'Physiology and Pathology of Respiration and Phonation' by Dr. Luchsinger. The second section, under the title of 'Physiology and Pathology of Speech and Language', was contributed by Dr. Arnold. As might be

expected, both sections are heavily weighted in physiological, pathological, neurological, otolaryngological, and general medical considerations. While this book is a product of the scientific and clinical heritage of its authors, there is not any obvious neglect of psychological, psychiatric, audiological, and therapeutic emphases. The result is probably one of the most detailed, erudite, and carefully documented contributions to the general field of speech pathology that has yet appeared. A particularly strong feature is that the authors have been able to bring together American and European literature in a unified manner and, often, to the shame of some of their less well-informed American colleagues. It is true that there are surprising omissions in the American bibliography of the text. However, when the hundreds of items which do appear are evaluated so carefully, such gaps can be forgiven and are, in fact, to be expected.

This work is particularly strong in all aspects of voice disorders including etiology, diagnosis, and treatment. There is relatively less emphasis upon the other speech disorders. However, articulation, cleft palate, language disorders, stuttering, and mental retardation are all dealt with in an acceptable and readable manner. Again, there will be certain points upon which some Americans will disagree. The work on articulation, for example, goes far beyond anything that we have yet attempted in terms of differentiating among various types of articulatory problems. The authors handle this, however, in such an acceptable manner that it would be difficult for reasonable readers to accuse them of being unduly dogmatic.

There are discussions of subjects that seldom appear in the American literature either in textbooks or in articles assigned to graduate students. These are revealed in chapter headings with such titles as 'Constitution and Language', 'Genetics of Language', 'Cerebral Dominance and Preferred Laterality', 'Music and Language', and 'Morphology of the Speech Organs'. There are also exciting bits of historical information included throughout the text which provide the reader with insights into his own professional beginnings, perhaps a somewhat vague area for many Americans.

To read this book, or to browse in it, is to realize that there has been far too little exchange of ideas with our European medically-oriented colleagues. It may well be that they know us better than we know them. This is tragic because they have contributions to make. This particular one will be a welcome addition to professional bookshelves here in America.

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FISHBEIN, MORRIS (Ed.), *First International Conference on Congenital Malformations*. Philadelphia: J. B. Lippincott Co., 1962. Pp. 314. $7.50.

This book, consisting of 28 papers, is a compilation of the known material and etiology of the congenital malformations and the approaches to these problems in finding solutions from the viewpoints of genetics, embryology, pathology, immunology, virology, biochemistry, etc. All the papers are well documented, although reasonably complicated. Discussions are sometimes more instructive than the papers, which pose puzzling questions. The reviewer feels this book is no doubt a gold mine and highly recommends it to all professional people interested in cleft palate problems.

Session I

INCIDENCE. Much of the data, possibly all of it, in the papers by Lamy and Frezal, are not utilizable to establish a hypothesis, since many of the significant malformations are missed. The contradictory figures may account for the results. For instance, 'In countries where mortality due to . . . ; about one third of all deaths . . . 80% during the first year' (p. 38). If this statement is taken literally, the correlation between the figures 1.5% and 4 to 5% (p. 35) seems contradictory. They try to explain the discrepancy of the figures for mortality rate due to congenital malformations by David and Potter, and by McIntosh with the statement: 'Malformations of the central nervous system are more frequently the cause of *death in utero* than . . .' (p. 38–39). However, the work by Jost (p. 197, 306) makes this interpretation questionable. They point out malformations of the middle ear are frequently associated with harelip, in addition to Neel's findings of frequent association of malformations of the central nervous system with cleft lip and cleft palate.

In the latter half of this session, McKeon refers to the source of variation in the incidence as to cleft lip and cleft palate.

DISCUSSION. Mellin points out that results obtained for rubella, for instance, may be different by prospective and by retrospective methods; when children are followed for only one year after birth, many cases of deafness may be omitted.

Session II

INTRINSIC FACTORS. Neel, in reference to the difficulty of implications as to the mechanism of etiology of more than 20% of congenital defects from the genetic standpoint, suggests that a study of the effects on malformation frequency of hybridizing lines could yield critical data on the relative importance of polymorphic systems.

Turpin and Lejeune present a mentally retarded cleft lip and cleft palate girl in whom a medium acrocentric chromosome is found. With this and other examples their interpretation is that chromosomal aberrations cause alterations of development and disorders of mental growth. Such a definite conclusion might be hazardous, since chromosomal aberrations may not be a cause, but part, of syndromes.

In order to illustrate the interaction between genes and exogenous factors, Nachtsheim introduces several cases of phenocopies of hereditary traits obtained by many exogenous factors in animals and the result of Fuhrmann's study as to human congenital heart anomalies. Nachsheim states in his conclusion that genotype in all these cases may be 100% responsible for the malformation.

Brown points out that 1% of the male infants in an institution for the mentally defective have the nuclear sex of the female type.

Discussion. Gruenberg mentions, 'The fact that harelip and cleft palate occur in some 10% of mice of the A strain, which do not have a balanced polymorphic system, may hold true for human malformations which cannot be attributed either to simple genetic or specifiable environmental conditions.'

Session III

Extrinsic Factors. Present estimates of teratogenic effects on the embryos whose mothers had German measles during the first trimester of pregnancy vary between 12% and 40%. Warkany refers to an example of endemic cretinism, which can be wiped out within two generations, and another example of the cleft palate, which can be induced with anti-metabolites. He states that there is little causative evidence for malformations attributable to maternal endocrine disturbance.

Despite the failure to propagate the virus, the general symptoms of the disease listed by Gregg strongly suggest a virus etiology. Rhodes points out that there is still no laboratory diagnostic test for the presence of rubella virus or its antibody. Some workers demonstrate that vaccination early in pregnancy does not affect the fetus while others insist it does.

From his study of the genetically controlled chick embryos, Landauer explains that threshold-dependent events, which could modify the course of development, are common mechanisms in the origin of congenital malformations.

Discussion. Horsfall states, 'Since non-infective influenza virus particles are toxic, they could cause malformations.'

Session IV

General Developmental Mechanisms. The experimental studies of Zwilling explain that anomalies may result from the failure of interactions in the inductive system. Different sets of combinations of ectoderm and mesoderm which were obtained from genetically normal and abnormal chick embryos were used.

Levi-Montalcini discusses the toxic effect of a rabbit antiserum to the salivary protein to the sympathetic nerve cells of the newborn mice. He states that toxic antiserum injected into the pregnant mother did not affect the fetus, but did affect the babies via the nursing mother.

Markert emphasizes that the feed-back mechanism is necessary for differentiation of the chromosomes.

DISCUSSION. In two-day chick embryos which were infected with influenza A Virus, Hamburger found that ectodermal derivatives were affected, whereas eight days later the virus affected specifically the lung primordium. He suggests the importance of a study to ascertain how an embryonic undifferentiated cell acquires strain specificity. Waddington poses a question, 'How can one reconcile Saunder's and Zwilling's results indicating the importance of the ectodermal ridge with the recent experiments by Bell, in which chick limbs were found to develop normally after removal of the ectodermal ridge by ultrasonic treatment?'

Session V

ABNORMAL DEVELOPMENTAL MECHANISMS. The study of interstrain comparison in mice with or without cortisone relating to the time of palatal closure brought about Fraser's conclusion that cortisone increases the frequency of cleft palate by delaying shelf movement. However, his interpretation may be erroneous if he misjudged the shelf which was going down as the one going up.

Among the principles in experimental teratology, Wilson emphasizes the susceptibility difference of the teratogens according to the differentiation, and enzymic interference with localized metabolism.

Wolff states that the action of genital hormones is exerted at a much earlier stage than that of the other endocrine glands, while the action of other hormones occurs later and affects the general growth-pattern less.

Session VI

MATERNAL-FETAL INTERACTION. McLaren refers to abnormalities of the nervous system in embryonic mice which occur when the mother has been actively immunized against brain tissue. When semen from high cancer strain males is injected, the offspring may show a high incidence of tumors even though the mother does not develop tumor. The transmission, in this case, must be via the mother, since incidence of tumor increases in later litters, whether or not the subsequent matings are with a high tumor strain male.

Heterogeneous protein reaches the fetal blood in a far lower amount, while about four-fifths of the experimental dose of labeled homologous globulin is destroyed within the fetal membrane. From this viewpoint, Hemmings believes the molecules may be subjected to greater proteolysis instead of being transmitted.

The fact that syncytial trophoblasts are found in the uterine vein blood of pregnant women and intact trophoblasts are found in the uterine vein blood of pregnant women and intact trophoblasts are lysed rapidly after exposure of trypsin leads Thomas to a conclusion similar to Hemmings', in that the mechanism of disintegration of trophoblasts presents an approach for the study of abnormalities of pregnancy.

DISCUSSION. Parks suggests that in malformations the placenta must transmit the harmful agents, and it may be affected. If so, the damaged placental cells may act upon the embryo. The work by Jost and Levi-Montalcini indicates that the central nervous system is not so important in intra-uterine life as it is after birth, which makes Dawes wonder whether the fetus in utero is able to regulate its own environment. Coomb's statement merits attention, 'The time when an antibody is passed to the fetus is rather late in relation to the time when it might influence normal development.'

Session VII

PHYSIOLOGIC AND MEDICAL DEVELOPMENT. In mammals, it is said, about 10% of the ova failed to become fertilized, 10% failed to implant, 10% aborted, and 70% went to term. McKay and Hertig found this held true in man, from their study of 210 hysterectomized women, and concluded that the abnormalities of the placenta represent congenital malformation of the trophoblast, the cause of which may be alterations in nuclear compounds of the cells rather than in maternal environmental factors.

From the study of 105 mothers of anecephalic infants, Walker and Smith conclude that no consistent evidence of association of incidence with maternal influenza is found, but the possible etiologic importance of maternal infection cannot be discounted.

Wilson, in reference to the problems of cleft palate as examples of congenital malformations that have been handled with satisfaction, concludes that 'we are happy with how successfully and complete the care for them can be in early life.' Then he quotes an example of brain damage from phenylketonuria, which is preventable, if detected early by an urine test and emphasizes the importance of routine and careful health surveys of all infants, carried out as a public health procedure. Apart from the prevention and speech after-care of cleft palate, it is still questionable whether cleft palate problems have been handled with satisfaction. One cannot overlook the fact that cleft palate patients have frequently associated visceral defects of the thoracic, abdominal, and cranial regions, many of which are not manifest at birth. This viewpoint brings out the importance of careful health surveys of all cleft infants, and should be re-emphasized, since these defects may leave the patient incapable of any useful physical or intellectual activity, if left untreated.

Session VIII

PERSPECTIVES. Waddington suggests the only means to improve the canalization of development is to exercise selection against the effects of some definite external stress, since many heterozygous genetypes do produce well-canalized courses of development.

One could expect the eventual identification of the critical primary defect in many cases to be enzymic. Therefore, Tatum suggests that it is promising to make use of the cell's own regulatory feed-back mechanism to decrease the production and the accumulation of an undesirable product.

As to the future possibility of genetic study, Penrose offers two suggestions: a) chemical analysis of aneuploid cells and b) effect of the extra dose of DNA to the formation of enzymes and of proteins.

No growths have resulted from the inoculation of heart microsomes alone, and inoculation with virus alone evoke the characteristic Rous sarcoma. Injection in new born mammals of an antiserum to a protein with specific nerve-growth stimulating properties results in disappearance of the sympathetic nerve cells, which is thought to be due to cytotoxic effect. However, the mechanism of action of any cytotoxic antiserum is not understood.

Reviewing in this fashion some particular problems in this book, Ebert concludes that the teratotogenic effects of infectious agents may be a consequence not of infection of the embryo but rather of their role in augmenting maternal immune reactions against embryonic or maternal antigens.

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ABSTRACTS

Ritter, R., Zur Frage der Körperverletzung bei der Operation von Lippen-Kiefer-Gaumenspalten. *Langenbecks Arch. klin. Chir., 311,* 165–174, 1965.

In the preamble the author gives a summary of the German law concerning the bodily injury specially the situation after operations of lip jaw and palate clefts with post-operative deformation. He states that such often is not operated at the right time. One should not close clefts of lip and jaw before the age of six months. Later, when the child is about five years old, one should close the soft palate and a part of the posterior hard palate. The anterior part of hard palate should be closed three or six month later. The author states that this time of operation prevents deformations of the jaw and helps to get good conditions for orthodontic treatment. The author believes that the language is not injured if the child has good speech-education afterwards. The author states that even primary osteoplasty will not prevent a deformity of the upper teeth arc if the hard palate is closed too early. (Schmid)

Becker, R., Das Wachstum des Unterkiefers. Deutsche Zahn-Mund- und Kieferheilkunde, *44,* 1956.

After a general review concerning growth of mandible and its defects, the author explains the results of histological studies with human embryos and experiments on animals. He states that the tongue has the function of leaning firmly against the mandible. So the growth of mandible depends on growth of the tongue. The tongue is growth-promoting. Studies with rats showed that the activity in the cartilage growing-zone of mandible depends on growth of the tongue, its function and size. On these grounds the author differentiates two causes of defect-growing of mandible: 1) the cartilage growing-zone of mandible is defect 2) the "leaning against function" of the tongue is too strong or too less. The first defect he calls "rezeptive Wachstumsstörung", the second case he calls "induktive Wachstumsstörung". In the second case, a too much leaning against of a big tongue makes a Progenie, a too less because of a small or moveless tongue makes a "Pierre-Robin-Syndrome". The treatments of the second cases are mentioned. (Schmid)

Brooks, Alta, Shelton, R., and Youngstrom, K., Tongue-palate contact in persons with palate defects. *J. speech hearing Dis., 31,* 14–25, 1966.

This study investigated the tongue-soft palate contact and tongue restriction in various phonetic contexts using cinefluorographic technique. A sample of 59 children with surgical repair/palatal incompetence were the subjects and a normal group of ten children acted as control. Articulation test scores and palatopharyngeal gap measures were obtained as well as breath pressure ratios on each subject. The results of this study indicate that, unlike normal speakers, the subjects often articulate the phonemes tested with the tongue making contact with the soft palate or pharyngeal wall. These contacts occur more frequently when the phonetic context involves /a/ than /i/. Poorer articulation scores were found for those subjects who made tongue-soft palate contact than for subjects who do not make this type of contact. The breath pressure quotients between subjects groups indicated that no difference was found for those who make tongue-soft palate contact and for those who do not. The authors caution that those who test for blowing should be aware that subjects may use the tongue-soft palate seal and buccal pressure to obtain high pressure scores. (Klim)

Azuma, F., Development of articulatory mechanisms. *Practica otologica (Kyoto), 59,* 105–132, 1966.

Two general purposes of this study are to investigate the anatomical and physiological developments of the articulatory organs, and to reveal the acoustical characteristics of child voices. Anatomical measurements of the organs were made on the lateral laminagraph, and the articulatory patterns were analyzed by means of cinefluorography. Acoustical characteristics of voices were studied by a sound spectrogram and a pitch indicator. Fifty-six children, ranging from 5 to 15 years of age, and four adults who had no speech and hearing problems were examined. Following are major findings. a) Sizes of most articulatory organs develop significantly after 11 to 13 years. b) Soft palate shows the most marked development at this level, and the velopharyngeal closure becomes tighter with advance of age. c) In children's phonation, elevation of soft palate begins and ends later than in adults, referring to initiation of speech. d) In children's phonation, it takes much more time than in adults' to contact the tongue root-posterior pharyngeal wall. e) The fundamental pitch level tends to decrease with advance of age. f) Intensity

of the fundamental pitch shows no relation to the age. (Machida)

Koyama, T., Experimental study on the resonance of paranasal sinus. *J. Otorhino-laryngological Society of Japan, 69,* 1177–1191, 1966.

By using plastic models of a human vocal tract and paranasal (maxillary and sphenoid) sinuses, the mechanism of the resonance of paranasal sinuses was studied. At first, paranasal sinus models with various volumes of the cavities and several kinds of ostium diameter were coupled to the model vocal tract. Artificial sounds at twenty-six different pitches were conducted to the coupled model, and resonated sounds were tape-recorded at 20 cm apart from the nostrils in order to be analyzed by sound spectrography. The following changes were noticed in this part of the study. a) Slight increase of the intensity at the lower frequency levels. b) Decrease of the intensity at the middle frequency levels. c) Increase of the intensity at the higher levels in the comb-tooth manner. Auditory impressions of the resonated sounds were also evaluated by five examiners. Further, nasal sounds phonated by eight normal persons with the paranasal sinuses occluded in various degrees were analyzed in the same ways as in the experimental study, and approximately the same results were obtained. From these results is is assumed that as resonating chambers the paranasal sinuses offer a favorable effect on voice. (Machida)

Fara, M., and Hrivnakova, J., The problem of protruding premaxilla in bilateral total clefts. *Acta Chir. Plastic, 7,* 281–296, 1965.

A total of 506 patients have been treated for bilateral total cleft at the Prague University, Department of Plastic Surgery. Among these there were 31 cases with enormously protruding premaxillae in which neither the pressure of the reconstructed lip nor conservative stomato-orthodontic treatment was able to bring the parts into correct mutual relation. For such cases secondary surgery is unavoidable and should be performed as late as possible with full awareness of the risks involved. Because of the risks involved in severing or resecting the vomer, or neck of the vomer, surgical procedures for minimizing the need for secondary procedures are advocated. A two stage operation using perpendicular sutures is described which permits the authors to close the lip over a large premaxilla without the use of lateral flaps to supplement the prolabium. Experimentally, the authors have also restricted development at the growth zone and thus reduced protrusion of the premaxilla. The procedure employed consists of selective interference with the blood supply of the central segment of the maxilla. By this method, they hope to avoid surgical repositioning in the future. (Harding)

Demjen, S., and Marcenkova, V., Klippel-Feil syndrome and cleft palate. *Acta Chir. Plastic, 7,* 297–302, 1965.

Klippel-Feil syndrome was first described by Klippel and Feil in 1912 and is a condition that is rarely seen in routine practice. The syndrome is characterized by the following signs: A. The absence of, or the presence of only a short, thick neck. B. Restricted movement of the head and neck, mainly on bending the head to one side. C. Conspicuous low hairline on the neck. The clinical picture is accompanied by typical X-ray changes in the cervical vertebrae and occasionally the upper thoracic vertebrae. In general, the deformity is the result of displastic factors, which affect the chondrogenic body of the vertebrae. Associated anomalies have also been described with these patients. The patient described by the authors also

had a cleft palate, muteness and deafness. (Harding)

Cervenka, J., and Drabkova, H., The intelligence quotient in cleft lip and palate. *Acta Chir. Plastic, 7,* 58–61, 1965.

Psychological damage in patients with cleft lip and palate can be classified simply into primary, that is, congenitally lowered intelligence, and secondary, that is, damage as a result of the reaction of the people around the patient to his appearance or speech defect. The authors' study was only concerned with the question of intelligence as expressed by the intelligence quotient. The IQ was determined in 60 probands with different types of cleft lip and/or palate selected at random from the out-patients at the Clinic of Plastic Surgery in Prague. The average IQ of 19 patients with a bilateral cleft was 87. This group of bilateral clefts contained a significantly higher percentage of oligophrenics (feeble minded and imbecile). Despite the relatively small series, this finding can be considered to be statistically significant. The IQ of the other groups of cleft had the same distribution curve as that of the general population. The average IQ of the unilateral clefts was 102 with that of cleft lip being 106 and cleft palate 97. (Harding)

Jaworska, M., Cleft palate produced experimentally in C57/BL strain of mice in two age groups. *Acta Chir. Plastic, 7,* 70–82, 1965.

The author carried out experimental investigations in mice of C57/BL strain, which were given 2.5 mgs. of Cortisone on the 11th, 12th, 13th, and 14th days of pregnancy, as well as 2,500 units of Vitamin A on the 11th day. The aim of this study was an analysis of the teratogenic effect of Cortisone under the climatic and animal-raising conditions prevailing in Poland. The author obtained a 45% instance of clefts as compared with 18% commonly found in mice treated exclusively with Cortisone, which he felt gave evidence of a synergic action of Vitamin A. Seasonal variations in the instance of cleft palate experimentally induced by Cortisone was found to be statistically significant. It seems, therefore, that the warm season in Poland exerts protective influence by overcoming to some degree teratogenic activity of Cortisone. There was a higher percentage of fetuses with cleft of the secondary palate in older mice, which seemed to show conclusively that the more pronounced the inability of the metabolic system to control the teratogenic effect of Cortisone, the more likely the greater number of fetuses to be affected with a cleft anomaly. (Harding)

Nylen, B., Surgery of the alveolar cleft. *Plastic reconstr. Surg., 37,* 42–46, 1966.

In this published form of his introduction to a symposium on surgery of the alveolar cleft, the author defined 'early' bone grafting as that done before the second year of life, with or without lip plasty, and including closure of alveolar and hard palate cleft. 'Late' bone grafting is that accomplished after the permanent teeth have errupted. The technique employed is based on that of Backdahl and Nordin. A total of 66 early bone grafts and 188 late ones comprise this reported experience. Two deaths occurred in the former group following long operations on bilateral lips. Bilateral cases are now done one side at a time. Partial losses of bone occurred in three cases and one fistula was noted. In the late cases there were defects of the mucosa in 25%, partial loss of bone in 15%, and fistulas in 9%, including three patients with complete loss of graft. The author feels the technique has proven its value in maxillary arch stabilization in late cases but

that further time must pass before assessing its place in early management. (Cosman)

Conway, H., Bromberg, B., Hoehn, R. J., and Hugo, N., Causes of mortality in patients with cleft lip and cleft palate. *Plastic reconstr. Surg., 37,* 51–61, 1966.

In a 32-year experience in New York Hospital, 256 primary lip repairs were performed with a mortality rate of 1.17%. A total of 337 palates were closed primarily with 0.29% mortality. There were no deaths in 418 revisional cleft lip procedures. A total of 368 secondary palate repairs were accomplished with 0.54% mortality rate. Detailed review of the deaths in primary as well as secondary procedures suggested that anesthetic complications represented the major cause of mortality. Major morbidity in these procedures also appeared related to respiratory problems mostly originating during the anesthetic administration. In discussion of the paper, Dr. R. H. Ivy presented a 6-year experience of the Pennsylvania Health Department Cleft Palate Program. Three deaths related to operation were recorded, in at least one of which anesthetic management was primarily implicated. While it is apparent that the reduction of mortality from the high levels recorded by the pioneers in this surgery has been achieved in large part by improvements in anesthesia and airway control, it is also clear that it is in these areas that the major remaining mortality factors are to be found. (Cosman)

Porterfield, H. W., Trabue, J. C., Terry, J. L., and Stimpert, R. D., Hypernasality in non-cleft palate patients. *Plastic reconstr. Surg., 37,* 216–220, 1966.

Hypernasal speech in non-cleft palate patients may be found in basilar skull deformities, congenital shortening of the palate, palatal paralysis, post-tonsillectomy and adenoidectomy syndrome, post-traumatic defects and in functional disorders. Thirteen such cases were encountered in the last three years. Seven were classified as basilar skull deformities with congenital shortening of the palate as well, two were palate paralyses, one was post T&A, and three were functional, involving mimicry and psychogenic elements. No traumatic defect was encountered. Diagnostic methods are discussed. Treatment was by pharyngeal flap in the short and paralyzed palate groups. The post adenotonsillectomy syndrome was treated by a silastic implant. Speech therapy alone was successful in the functional disorders. Moderate to good speech results were said to have followed the operative procedures. (Cosman)

Neuner, O., A new method for the velopharyngeal operation. *Plastic reconstr. Surg., 37,* 111–116, 1966.

The author does not believe that procedures aimed at lengthening the velum or pharyngeal flap operations do much toward creating a normally functioning pharyngeal sphincter. He has devised a procedure in which he loosens the mucosa and musculature of the lateral and posterior pharyngeal walls by blunt dissection. The pharyngeal walls are then brought toward the midline and sutured to each other and to the back of the freshened velum in layers to leave a central opening of about the same circumference as a finger. The procedure has been applied with good results to both primary and corrective operations for repair of cleft palates. (Huffman)

Girgis, I. H., Blood supply of the uvula and its surgical importance. *J. Laryngol. Otol., 80,* 397–402, 1966.

Observations of atrophy of the uvula following some tonsillectomies and in cases of scleroma and syphilis, led to a study of the soft palate and uvular blood

supply. Many specimens were dissected in order to locate the arteries of the uvula. An artery, not described in anatomy texts, was found leading to the uvula from an infero-lateral direction along the posterior pillar. The author termed it the 'Uvular artery'. It usually arises as a separate branch of the external carotid above the origin of the ascending pharyngeal artery. It has close relation with the tonsil, just underneath the fascial sheath of the palato-pharyngeus. A vein runs alongside the Uvular artery. If arteries on both sides are ligated, atrophy of the uvula follows. Nasal tone of speech and regurgitation of food results. If the veins are ligated, edema of the uvula and adjoining part of the palate occurs. Recommended points are given in tonsillectomy operations to prevent damage to the uvula circulation. (Noll)

Kaye, B. L., Robinson, D. W., Masters, F. W., and Simons, J. N., Tumors of the premaxilla in children: report of two unusual cases and a review. *Plastic reconstr. Surg., 37,* 131–138, 1966.

One of the cases reported here was that of a 5-year-old child with bilateral cleft lip and cleft palate who two years after closure of an oronasal fistula developed a mesenchymal tumor, probably a hemangio-endothelialsarcoma, involving the upper lip and gingiva in the area of the repair. Metastases followed limited excision and radiotherapy, with death ensuing within three years of onset. (Cosman)

Pruzansky, S., Ruess, A., and Buzdygan, D., Oro-facial-digital syndrome in a Negro female. *Plastic reconstr. Surg., 37,* 221–226, 1966.

This syndrome, part of whose manifestation is an eccentrically placed palatal cleft or submucus palate defect, is described for the first time in a Negro. Some 53 other cases have been described in white females. The authors discuss this rare condition and compare the racial incidences of this defect with that of the cleft lip palate defect. (Cosman)

Rees, T. D., Guy, C. L., and Converse, J. M., Repair of the cleft lip nose: addendum to the synchronous technique with full-thickness skin grafting of the nasal vestibule. *Plastic reconstr. Surg., 37,* 47–50, 1966.

Mobilization of the depressed lateral alar crus of the nose on the cleft side as a single pedicle flap based medially on the septum is advocated. This results in a defect of vestibular skin or of complete alar wall which is then filled with full thickness skin graft or composite ear graft as indicated. The authors are favorably impressed by their results although the photographs of the three patients presented are difficult to evaluate. (Cosman)

Lynch, J. B., Lewis, S. R., and Blocker, T. G., Maxillary bone grafts in the cleft palate patient. *Plastic reconstr. Surg., 37,* 91–99, 1966.

The authors repair cleft lips at about one month of age, two-stage repairs being used for bilateral lips. Cleft palates are repaired at about two years of age. At the time of repair of a unilateral cleft lip an impression is made with alginite compound and an acrylic splint with a jackscrew incorporated is prepared and inserted between the maxillary segments two or three days following surgery. The key for the jackscrew is furnished to the parents with instructions as to how and when adjustments of the maxillary segments is needed. While the force of the repaired lip is forcing the premaxillary portion of the maxilla to assume a more normal position it often collapses the lateral maxillary segment. As soon as the maxillary segments are in satisfactory position by use of the acrylic splint a rib graft is inserted into a prepared pocket to

afford stability. Patients with bilateral clefts have one side of the lip repaired at a time. This is followed by use of the acrylic splint, although no effort is made to incorporate the premaxilla in the splint. The authors believe that provision of the normal space between the lateral maxillary segments will allow the repaired lip to force the premaxilla into a desirable position. The authors also believe that bone grafts in older patients are often necessary to maintain correction produced by orthodontic means. This correction could be maintained by a permanent appliance, but bone grafting appears to be preferable. It is stated that cases that have had early bone grafting have not yet been observed long enough to determine if growth patterns will be normal. (Huffman)

Pitzner, Joan C., and Morris, H. L., Articulation skills and adequacy of breath pressure ratios of children with cleft palate. *J. speech hearing Dis., 31,* 26–40, 1966.

The 84 children with cleft palates who were utilized in this study were assigned to one of two groups representing either adequate or inadequate intraoral breath pressure for articulation. These subjects were given subtests from the Templin-Darley Diagnostic Test for Articulation. Wet spirometer ratios were also obtained. It was shown that the children with adequate intraoral breath pressure were comparable to normals in articulation skills. Children with cleft palates with inadequate intraoral breath pressure had poorer articulation skills. Children who have had early management display better articulation than those with late management. (Berger)

Vealey, J., Bailey, C., and Belknap, L., Rheadeik: to detect the escape of nasal air during speech. *J. speech hearing Dis., 31,* 82–84, 1966.

Rheadeik is an instrument for detecting the escape of nasal air during speech. It is made of plastic and is about 1¼ inches long and between ⅜ and ½ inches in diameter. It is shaped like a nasal olive and small holes are drilled in either end on the longitudinal axis. When placed in the nostril it admits a tone between 3,000 and 4,000 cps if there is a significant escape of nasal air during speech. The instrument also responds with a chirp and tactile stimulation when proper nasal sounds and vowels having nasal resonance are produced. This device has been used in obtaining breath control during speech in cerebral palsy cases and in the treatment of cleft palate. (Berger)

Fletcher, S., Cleft palate: A broader view. *J. speech hearing Dis., 31,* 3–13, 1966.

The author reviews briefly the development and growth of the facial skeleton, and development and growth of the "soft tissues-"—adenoids, tonsils, soft-palate, pharynx, tongue. A short discussion on structural adaptation and distribution of developmental disturbances affecting speech performance is presented. Readiness for lingual activity in articulation is discussed in relation to space in the oral cavity, growth of tongue, and change in anatomical environment of the tongue. There is emphasis on palatal environment and the effect of modified structure on the function of all the parts used in articulation. Therapists are advised to consider the function of all structures, and not those which merely relate directly to the palate. The fact that there is interaction by all parts should be considered and careful assesment of the function of all parts of the mechanism involved in speech should be made. (Klim)

Warren, D. W., A physiologic approach to cleft palate prosthesis. *J. prosthet. Dent., 15,* 770–778, 1965.

The usefulness of the pressure-flow technique in the prosthetic management of cleft palate patients is emphasized. The

technique provides a means for estimating muscle valving against the speech aid, as well as relating changes in velar structure to associated characteristics of speech. Preliminary data indicate the strong possibility that normal, nasal, and denasal voice quality and articulatory errors can be classified physiologically. (author)

Walker, B. E., Cleft palate produced in mice by human-equivalent dosage with triamcinolone. *Science, 149,* 862–863, 1965.

Triamcinolone produced cleft palates in mouse embryos at a dosage proportionate, by body weight, to common therapeutic dosage for humans. Thus, it showed much greater teratogenicity than other glucocorticoids tested on mice. Widely ranging doses of desoxycorticosterone did not produce cleft palates. (author)

Olin, W. H., Cleft lip and palate rehabilitation. *Amer. J. Orthod., 52,* 126–143, 1966.

A number of topics are discussed briefly. These include etiology, embryogenesis and embryology, incidence, surgery, dental care, and orthodontic treatment. The establishment of a normal dental arch as early as possible is emphasized. There is a description of the various phases of orthodontic treatment including appliance therapy. (Luban)

Dennison, W. M., The Pierre Robin syndrome. *Pediatrics, 36,* 336–341, 1965.

The occurrence and description of cleft palate as part of the Pierre Robin Syndrome are discussed. General management of infants with the Pierre Robin Syndrome is presented. (Christensen)

Björk, L., and Nylén, B., Studies on velopharyngeal closure. *Acta Chir. Scand., 131,* 226–229, 1966.

The authors have studied velopharyngeal closure on roentgen cinefilm in lateral projection, synchronized with color cinefilm of the velopharynx from above and also horizontal tomograms in patients with velopharyngeal flap. The authors conclude that lateral cineradiography corresponds well to the actual sequence of event during the velopharyngeal closure and are highly reliable in judging closure or non closure of the velopharynx. In cases with pharyngeal flap there was often asymmetry of the two openings as shown with horizontal tomography. The area of the coupling gate was found to be a linear function of the sagittal diameter with an inclination of the regression-line slightly different from the one found in normal subjects. Lateral cineradiographic assessment of velopharyngeal closure or non closure is accurate and the area of coupling gate between the naso- and oropharynx is a simple linear function of the sagittal diameter of the openings. (Nylén)

Fogh-Andersen, P., Thalidomide and congenital cleft deformities. *Acta Chir. Scand., 131,* 197–200, 1966.

The author points out that in conjunction with the classical components of thalidomide deformities, it might also cause typical or atypical cleft lip and palate deformities. He reports on two Danish cases on cleft lip and palate with the history of thalidomide intake during early pregnancy. They both indicate more than a mere coincidence. One case was a typical complete cleft and the other an atypical pseudomedian cleft with aplasia of the premaxilla and malformed ears. He reports on similar cases being known in India, Japan, and other countries and would be interested in finding more cases with history of thalidomide among cleft lip and palate patients born during this epoch, in this way make it possible to confirm the supposition of a causal relationship. (Nylén)

Gylling, U., Rintala, A., Taipale, S., and Tammisto T., The effect of a proteolytic enzyme combinate (bromelain) on the postoperative oedema by oral application. A clinical and experimental study. *Acta Chir. Scand., 131,* 193–196, 1966.

The authors have used bromelain, an enzyme combinate isolated from the stem of the pineapple plant, to study the effect of postoperative oedema on different types of plastic surgery of the face as well as in experiments on animals. Bromelain was tried in 154 patients. Every single patient received 400 mg of bromelain perorally daily in 4 doses, 1 day before and 4 days after the operation with exclusion of the day of operation. Every second person served as a control. Three of the authors made an evaluation of the oedema from the 1st to 4th day postoperatively irrespective of each others, rating the swelling in a 4-point scale. No difference was found between the two series. In an experimental part of the investigation 8 rabbits were traumatized by a cylinder falling on a standardized area of the lobe of both ears. The haematoma was measured daily and the approximate area of bleeding was calculated. 4 rabbits received bromelain and 4 served as a control. The haematoma in the control group was much larger on the 1st day as compared with the bromelain group, but became rapidly smaller than the treated group. After one week there was no difference between the two groups. The authors conclude that bromelain in clinical use is not capable to reduce postoperative swelling. (Nylén)

Breine, U., and Johanson, B., Tibia as donor area of bone grafts in infants. Influence on the longitudinal growth. *Acta Chir. Scand., 131,* 230–235, 1966.

The authors used tibia as donor site in 81 infants. They consider this donor site superior to rib grafts. There have been no complications from the donor site and totally restitution of bone and marrow has taken place. No differences in length in all cases were noted. The technic of taking the bone graft is described and beautifully illustrated. Ten consecutive cases underwent careful clinical as well as radiological control measurements. The authors conclude that operative trauma stimulates the longitudinal growth. Disturbances were present up to 4 years postoperatively. They do not consider them of such degree as to be of clinical significance. (Nylén)

Carroll, J. L., Knott, Virginia B., and Meredith, H. V., Change in several calvariofacial distances and angles during the decade of childhood following age 5 years. *Growth, 30,* 47–78, 1966.

Sixty-nine human subjects are studied longitudinally, at biennial intervals, from age 5 years to age 15 years. The population sampled is identifiable as North American white children, predominantly of northwest European ancestry, largely born and reared in Iowa, almost entirely of above average socioeconomic status, and representing the secular period 1945–1960. Data for 16 osseous variables are analyzed to elucidate ontogenetic modifications in size and form of the anterior calvaria, upper face, and lower face. These data are derived from *norma lateralis* roentgenograms exposed with the child's head positioned in a cephalostat. Collectively, the 16 variables comprise all sides of 3 adjacent triangles and all acute angles of these triangles. The investigation reports: (a) central tendency and variability statistics at 6 childhood ages for 7 calvariofacial distances and 9 associated angles, (b) central tendency and variability statistics for change in each of the 16 variables during two quadrennial periods and a decade, (c) intertrait correlations at ages 5 years and 15 years for two-trait combinations of the 16 variables,

(d) intratrait association for magnitude of each linear and angular measure at age 5 years with change in the measure over the subsequent decade, and (e) patterns of calvariofacial size and change exhibited by individual children. (Author)

Wallace, Helen M., and Fisher, Susan T., Use of congenital malformation data reported on live birth certificates. *Public Health Reports, 81,* 631–638, 1966.

The thalidomide tragedy and the more recent rubella epidemic have generated increased interest in early detection and adequate care of infants with congenital malformations. Because of this, a questionnaire survey was undertaken in 1965 among states, territories, and large cities to determine the extent to which information on live birth certificates about congenital malformations is used for epidemiologic surveillance and as a tool for service to the affected infant and family. Responses were received from 52 of 54 States and territories and 123 of 130 cities. Of the areas queried, 80 percent ask about the presence of a congenital malformation on the live birth certificate. A majority (87 percent of those having certificates containing this question) also request information about the type of malformation. The information is used by 31 percent of the areas for epidemiologic surveillance, by 45 percent for statistical analysis, and by 64 percent for followup services. Considerable variation was noted in the type of personnel performing the reviews and analyses and in the criteria for selection of infants for followup service. (Author)

Cosman, B., and Crikelair, F. F., The minimal cleft lip. *Plast. reconstr. Surg., 37,* 334–340, 1966.

This study was carried out on 21 cases of minimal cleft lip associated with seemingly intact alveolar arches. A lack of exact correlation between the degree of the lip defect and the nasal deformity was noted. Late appearing dental anomalies were uniformly present. Cryptic alveolar arch bone clefts were demonstrated in 6 of 7 cases where x-rays were taken. An instance of prealveolar oronasal fistula was noted in a case of apparent minimal lip deformity. The close relationship of the minimal cleft lip to the cleft lip nasal deformity in the "absence" of cleft lip was discussed. Emphasis was given to the significance of this continuum of deformity in establishing the locus of the cleft lip defect high in the lip and in the nasal floor and alveolar arch rather than in the free border of the lip. Rationale was given for viewing the minimal cleft lip as a subepithelial defect of the primary palate. (Cosman)

Pool, R., The configurations of the unilateral cleft lip, with reference to the rotation advancement repair. *Plastic reconstr. Surg., 37,* 558–565, 1966.

A careful consideration of the cleft deformity reveals differences in the vertical height of the lateral lip segment and in the amount of tissue available medial to the cleft side alar base. Methods of dealing with these differences in the context of the Millard lip repair are presented in detail. These well emphasized points are the fruits of a 6 year experience with the Millard repair. (Cosman)

Walker, J. C., Jr., Collito, M. B., Mancusi-Ungaro, A., and Meijen, R., Physiologic considerations in cleft lip closure: the C-W technique. *Plastic reconstr. Surg., 37,* 552–557, 1966.

The authors advocate the use of a 2 stage lip repair using an initial lip adhesion of the inferior ⅓ of the cleft sides without undermining and without sacrifice and tissue. Six to 12 weeks later definitive lip repair is carried out. Marked segment discrepancies are apparently treated first by orthopedic management. No mention is made of the approach to those cases with

minor segment collapse when first seen. 12 cases treated by the authors' methods are said to have been successful. The 2 cases depicted appear to show a usual amount of minor segment displacement. (Cosman)

Griswold, M. L., Jr., and Sage, W. F., Extraoral traction in the cleft lip. *Plastic reconstr. Surg., 37,* 416–421, 1966.

The authors describe their technique for the application of external traction using a muslin bonnet and a strip of latex girdle material. The history of such extraoral measures is reviewed. The method is said to be of proven value in the wide unilateral lip cleft, the bilateral cleft, and the protruding premaxilla. The details of the cases treated and their numbers are not stated. (Cosman)

Randall, P., A lip adhesion operation in cleft lip surgery. *Plastic reconstr. Surg., 35,* 371–376, 1965.

A lip adhesion procedure, similar to that suggested by Johanson, was carried out in 16 complete unilateral, and 4 bilateral cleft lip patients at an average age of 3.6 months. The definitive lip repair was completed on the average of 5.2 months later. One dehiscence occurred. The author suggests that this approach has value in moulding the alveolar segments and makes definitive closure simpler and easier. In consequence, a better result may be achieved and the need for late revision obviated. The extra operative procedure in the lip closure will thus be balanced out. The small triangular flaps designed for the adhesion are felt to be an improvement over simple incision or limited cleft margin excision in that fewer dehiscences occur. (Cosman)

Reynolds, T. R., and Horton, C. E., An alar lift procedure in cleft lip rhinoplasty. *Plastic reconstr Surg., 35,* 377–384, 1965.

The problem of cleft lip nasal reconstruction is briefly reviewed. A technique for fixation of the drooping and rotated abnormal lower lateral cartilage to the normal contralateral upper lateral cartilage is diagrammed and successful cases presented. Other techniques are needed to deal with the associated abnormalities of the cleft lip nose. (Cosman)

Stenström, S. J., and Thilander, B. L., Cleft lip nasal deformity in the absence of cleft lip. *Plastic reconstr. Surg., 35,* 160–166, 1965

Two cases are presented in which a nasal deformity like that associated with a cleft lip was present in the absence of cleft lip. In both there were minimal deformities of the lip involving muscle mass, philtrum integrity, or continuity of white line. While detailed studies of the alveolus were not done in one case, in the other no dental defect other than minor deformity of the lateral incisor was noted. The authors consider the implications of this deformity and conclude, contrary to Brown who reported a similar case, that these defects may best be interpreted as forms of cleft lip rather than defects of the alar cartilages of the nose. (Cosman)

Stenström, S. J., and Thilander, B. L., Maxillary stability in primary cases of cleft lip and palate. *Plastic reconstr. Surg., 35,* 330–333, 1965.

Applying the measuring instrument devised by the authors and reported previously, mobility of the maxillary segments of 47 cleft lip/palate patients was tested. The problem of anchorage of the device was solved by broadening the retention surface, correcting the surface by adding a cold polymerizate, and employing an adhesive powder. This refined technique led to the not surprising conclusions that maxillary mobility is greater the greater the extent of the defect, that the principle contributory cause of instability is the alveolar process cleft, and that the premaxilla is very mobile in bilateral lip/palate clefts. (Cosman)

ANNOUNCEMENTS

Because of limitations of space in *CPJ,* the Registry of Current Research Programs will no longer be published. Information of the type which was included in the Registry can be obtained by individuals or institutions from Chief, Dental Section, Medical Sciences Branch, Science Information Exchange, 1730 M Street, N. W., Washington, D. C.

Planning continues for the 1969 International Congress on Cleft Palate, to be held in Houston and sponsored by the American Cleft Palate Association. Dr. D. C. Spriestersbach has been named Secretary-General for the Congress and has been directed by the Executive Council of the Association to begin preparations for the meeting. Dr. Spriestersbach, a speech pathologist, is Vice-President for Research and Dean of the Graduate College at the University of Iowa and was formerly director of the cleft palate research program at that University. He has previously served the Association in the capacities of President and Secretary-Treasurer. Inquiries and suggestions regarding the Congress should be made to him, addressed to:

Dr. D. C. Spriestersbach
Secretary-General
1969 International Congress on Cleft Palate
Old Capital, The University of Iowa
Iowa City, Iowa 52240

The appointment of Dr. Seymour J. Kreshover as Director of the National Institute of Dental Research, one of the nine national institutes of health, has been announced by Dr. William H. Stewart, Surgeon General of the Publich Health Service. In this position, Dr. Kreshover succeeds Dr. Francis A. Arnold, Jr., who has been named the Service's Chief Dental Officer. Dr. Kreshover received his commission in the Public Health Service in 1956. For the previous seven years he had been associated with the Medical College of Virginia as Professor of Oral Pathology and Diagnosis, Director of Dental Research, and Director of Graduate and Postgraduate Studies. Earlier he had successively held the posts of Assistant in Oral Surgery at the Yale University School of Medicine, Chief of the Periodontia Clinic at the Roosevelt Hospital in New York, and Teaching Fellow in Histo-anatomy at New York University, following which he briefly engaged in private dental practice.

Time and Place, ACPA

1967—April 13, 14, and 15.....Chicago at the Palmer House
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—date unspecified.....Portland

The Editors of *CPJ* announce the appointment of Dr. Betty Jane McWilliams as Editor for Book Reviews. Please correspond with Dr. McWilliams, Salk Hall, University of Pittsburgh, regarding either new books which should come to her attention or a willingness to assist her in this very important activity of *CPJ* and the Association.

As one of the host institutions for the annual meeting of The American Cleft Palate Association, the Cleft Palate Clinic of the University of Illinois will present a two-day short course on April 11, 12, 1967, the Tuesday and Wednesday preceding the annual meeting. The course will summarize the principal findings to emerge from the longitudinal growth studies on clefts as well as other craniofacial malformations. Interested applicants are invited to write to:

Short Course
Cleft Palate Clinic
University of Illinois at the Medical Center
808 S. Wood Street
Chicago, Illinois 60612

Because of limitations in space, it may be necessary to limit attendance.

(The preceding announcement is in accord with the ACPA 1967 Convention Program Committee, Dr. John W. Curtin, chairman.)

The Foundation of the American Society of Plastic and Reconstructive Surgery has announced the winners of the 17th Annual Foundation Scholarship Contest. They are as follows: Second Prize: Stuart H. Milton, F.R.C.S. (Oxford, England) and Toyomi Fujini, M.D. (Tokyo, Japan); Certificate of Honorable Mention: William N. Cocke, M.D. (New York City). First Prize carries an honorarium of one thousand dollars plus seven hundred-fifty dollars for travel. Second Prize carries an honorarium of seven hundred-fifty dollars plus seven hundred-fifty dollars for travel. Certificate of Honorable Mention carries an honorarium of three hundred dollars for travel. The deadline for the 1967 Contest is December 31, 1966. Details of the Contest Rules may be

obtained by writing to the secretary, Dr. Peter Randall, 3400 Spruce Street, Philadelphia, Pennsylvania 19104.

The appointment of Dr. John C. Greene as Deputy Chief, Division of Dental Health, U. S. Public Health Service, has been announced by Dr. Viron L. Diefenbach, Chief of the Division. Dr. Green is well known in the dental profession as co-author and developer of the *Oral Hygiene Index* and the *Simplified Oral Hygiene Index,* widely used by dental researchers for evaluating oral cleanliness in dental health studies. He has written extensively on the epidemiology of cleft lip and palate and on periodontal disease. Dr. Green has been an officer in the Public Health Service for the past 14 years. His most recent assignment was as Chief of the Epidemiology Branch at the Dental Health Center in San Francisco, California. At the Center, he directed the National Cleft Lip and Palate Intelligence Service, a long-range program to identify causes of oral clefts, and was responsible for extensive research on periodontal disease.

ACPA Members: Secretary-Treasurer Bzoch reports that the results of the mail ballot vote for the $10 assessment for the 1969 International Congress is as follows.

Approve 447
Disapprove 94

Procedures for monitoring the payment of the assessment are being worked out.

The Societa Italiana di Chirurgia Plastica Ricostruttiva announces the election of the 1967–1968 Officers. President: Professor G. Sanvenero-Rosselli; Vice-President: Professor G. Radici; Councillors: Professors V. Bergonzelli, G. De Stefano, A. Gallasi, V. Mela, R. Pariente; and Secretary: Professor G. Francesconi.

The Fourth International Congress of Plastic Surgery, organized by the Italian Society of Plastic and Reconstructive Surgery, will be held at the Cavalieri Hilton Hotel, Rome, October 8 to 13, 1967. President: Prof. Gustavo Sanvernero-Rosselli; General-Secretary: Prof. Vittorio Bergonzelli. Full and Corresponding Members of the various Societies related to the International Confederation for Plastic Surgery and all Surgeons having a scientific or professional interest in the problems and progress of plastic and reconstructive surgery are cordially invited. All

communications and inquiries of those who expect to attend the Congress should be addressed until February 1st, 1967 to the Secretary-General, Prof. Vittorio Bergonzelli, Via Lamarmora 10—Milano (Italy). Hotel registrations should be made directly with the Wagon-Lits/Cook, Via Gradisca 29—Rome (Italy), the official travel Agent for the Congress.

Dr. William H. Stewart, Surgeon General of the Public Health Service, has announced a recent reorganization of the grant-supported research and educational programs of the National Institute of Dental Research. The reorganization, he said, will help to better define areas of needed research and spur studies on these problems. It will also help identify those research contributions which have promise for application in the community and hasten the availability of their benefits. The earlier structure dealt separately with the development of scientific manpower resources and the conduct and application of research. These elements are combined in the newly-established, four major program areas covering (a) dental caries and hard tissue studies, (b) periodontal disease and soft tissue studies, (c) oro-facial growth and development, and (d) biomaterials and special field projects. Emphasizing program breadth, each area will include a fundamental, undifferentiated research component, as well as basic, clinical, applied, and epidemiologic research directly concerned with the major oral diseases, according to Dr. Seymour J. Kreshover, Director of the Dental Institute. Similarly, each area will encompass training grants, fellowships, and career development awards. A small expert committee of advisers will be appointed for each area, and special ad hoc consultant groups will be called on as necessary.

The programs will function under the broad direction of Edward J. Driscoll, Associate Director for Extramural Programs of the Dental Institute.

Robert C. Likins, D.D.S., will serve as Chief of the area of Dental Caries and Hard Tissues. This program will encompass studies of the formation, calcification, composition, and fine structure of dental hard tissues as well as work directed at the causes, treatment, and prevention of tooth decay. Dental caries was found to be the number one health problem among children in Operation Head Start, and it affects more than 95 percent of the total pouulation.

Thomas E. Malone, Ph.D., will administer the Periodontal Disease and Soft Tissue Study area. Periodontal disease, the chief cause of tooth loss after 35, affects an estimated 67 million American adults. In addition to studies of normal and diseased periodontal tissues, this program will include investigations of oral cancer, saliva and the salivary glands, oral microorganisms, and oral ulcerations, such as canker sores.

K. Kenneth Hisaoka, Ph.D., will direct the Oro-Facial Growth and

Development Program, which will be concerned primarily with studies in cleft lip and palate and orthodontics. One out of every 750 children is born with a cleft lip or palate. Disciplines such as surgery, sociology, and speech therapy will be included as well as the basic sciences related to etiology and treatment.

Robert J. Nelsen, D.D.S., is in charge of Biomaterials and Special Projects. Investigations in the development and use of improved methods and materials for prosthetic, implant, restorative, and preventive dentistry will be concentrated in this program area. Included in this category will be appropriate field trials to assess the benefits to population groups of promising laboratory leads.

"While these four categories will serve to sharpen the focus of our support, as well as emphasize the breadth of responsibility in the dental and relevant sciences," Dr. Kreshover said, "they are by no means all inclusive. Meritorious grant applications that do not clearly fall within these areas will continue to be encouraged and supported. An essential addition consideration is that this new structure will have a built-inflexibility that will permit the development of new program areas as needs arise."

LETTER TO THE EDITOR

Dear Dr. Morris:

I am stimulated by the recent review of Dr. Pruzansky of the Hotz symposium, which appeared in the July issue of the *Journal.*

My first inclination was to ignore the diatribe and implications of intellectual dishonesty. But his remark, "This reviewer openly challenges anyone to produce oriented serial frontal films on infants, or for that matter similarly positioned later *films that were obtained without sedation,*" impugns the honesty of those conducting the research. Obviously, since quite a few cephalometric radiographs were taken as the basis of the study, and numerous prior contributions to the literature were made by this investigator, this opens to question all results obtained. If you can't trust the research methodology, what then? Fortunately, I have had what I consider eminently qualified assistance in this matter. The Radiology Department of Children's Memorial Hospital did the actual headplates on the infants. The head of the Department, Dr. Harvey White, is one of the world's great pediatric radiologists, and it is his ability that is questioned—along with that of his staff. Hence, my writing to defend Dr. White. His integrity and stature are so great that it hardly needs defending, but there might be readers who are unaware of the mechanics of obtaining the data, and they do not know it was, indeed, done at Children's Memorial Hospital and by Dr. White and Staff.

Our basic premise was that premedication can be dangerous for the infant, and should not be done, if a methodology could be developed that would provide diagnostically acceptable pictures otherwise. By means of a specially designed cephalometer (not the one used by Pruzansky), and with exposures ranging from one-twentieth to one-fiftieth of a second with rotating anode x-ray equipment (also not the same as used by Pruzansky) and with special wrapping techniques to hold the infants during exposure, pictures were obtained that the staff felt were consistent with the general high level of radiographs emanating from the Radiology Department of Children's Memorial Hospital. We had heard rumors of near fatalities in one or two cases where infants *had* been sedated, and we were not about to emulate this experience.

The files of Children's Memorial Hospital have thousands of cephalometric radiographs taken by Dr. White and staff for examination and critical perusal, not only those used in the study reported, but others. Surely, before the reviewer "openly challenges" he might have checked by local phone call, a twenty minute drive from his private practice, or a post card of inquiry.

But then, I should not really be any more disturbed than other eminent and internationally known leaders in the field of cleft lip and palate who attended the seminar, and who were willing to come in the interest of finding the answers to some of our vexing problems, not in having their expenses paid. They fared little better—and sometimes worse—from the sulphuric acid-tipped pen of the reviewer.

I believe that a reviewer should be objective and there is ample evidence in the many reviews and articles I have done that follow this principle. As Martin Dewey says, "Science knows no friends." But objectivity is not synonymous with diatribe and vitriolic invective, with personal assaults on honesty and integrity.

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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:

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