EDITORIAL

The Cart Before the Horse

It seems like a pretty good idea to follow the rules of editorial writing and start out with a catchy title. But this time it's true, for while many of us are striving to improve the results of cleft palate surgery by innovative techniques, we have put the cart before the horse. We are striving to improve our results, while at the same time we have not agreed upon methods for evaluating these results.

I believe that a major thrust should be made to develop standardized methods of evaluating speech, maxillary-mandibular relationships, and hearing. Only when we can agree upon these measurements will we have the ability to judge what treatment methods provide the best speech, facial growth, and hearing for the cleft palate patient.

At the present time the *speech* of cleft palate patients is being evaluated by one or more speech pathologists, speech students, the surgeon who operated upon the patient, dentists, lay individuals, or judging teams made up of combinations of these individuals. The decision as to whether there is nasal emission on pressure articulation of consonant sounds or abnormal articulation due to dental or occlusal variations is being made on listener evaluation of isolated sounds, single words, or connected speech, employing either direct observation of the speaker or tape recorded samples. This soft data is then placed on a three, four, or five point scale, or is rated by identifying each of the articulation disorders on a work sheet. Efforts to obtain hard data are being made by studying physiologic correlates of speech such as the recording of air pressure air flow from the nose and mouth, by studying single exposure radiographs or cinefluroradiographic films of palatal function, and the sound spectrograph. But at this time we have no nationally or internationally agreed upon method of evaluating the speech results in cleft palate patients who have been treated by one of the several techniques currently in vogue.

Maxillary bone growth and the associated *relationship of the maxilla and mandible* also require precise evaluation following cleft palate surgery. Though thousands of dental casts and cephalometric radiographs are being stored in cleft palate centers, there are no agreed upon means of evaluating them. Isolated measurements of intertuberosity or alveolar cleft width, and descriptive criteria such as "approximation with contact", "lateral maxillary segment collapse", "hour glass maxillary constriction", "trapped premaxilla", or "overlap of maxillary segments" are unsatisfac-

tory when seeking scientifically valid methods of evaluating cleft palate treatment.

Only in the area of *hearing* do we have some agreement on how to evaluate our results. The Committee on Conservation of Hearing of the American Academy of Ophthalmology and Otolaryngology has agreed upon six grades of hearing. These grades are based upon the average hearing threshold levels obtained with an audiometer for sounds at the speech frequencies of 500, 1000, and 2000 cycles per second in the better ear.

So how can we develop agreed upon standardized methods of evaluating speech and maxillary-mandibular relationships? One way to accomplish this is to have a granting agency support research, in at least three competing centers, on the best way to evaluate speech. The same would be done for the evaluation of maxillary-mandibular relationships. Then, a few years later, at the completion of this research the investigators from the competing centers would meet and in an atmosphere of scientific honesty, abiding by democratic rules agreed upon at the time of the grant awards, would decide upon the best way to evaluate their specific area of concern.

This all has to done some day, why not now? Why not get the horse before the cart?

—William C. Grabb, M.D.

BOOK REVIEWS

LUCHSINGER, RICHARD, (with contributions from F. WINCKEL and F. WUSTROW), *Handbook of Voice and Speech Therapy, Volume 1, The Voice and its Disorders.*

The Handbook of Voice and Speech Therapy, first published in 1949 by R. Luchsinger (Zürich) and Gottfried E. Arnold (New York), is considered a standard work in the German language. The third edition issued in 1970 has been completely revised and enlarged by the authors, thus allowing a thematic separation into two volumes. The comprehensive presentation, also extending to adjacent disciplines, and especially the attempt of taking, as far as possible, full account of the global literature, justify the appellation of the present edition as handbook.

In the first volume R. Luchsinger deals with the physiology and pathology of the voice. Detailed attention is given to the function of breathing before dealing with the actual formation of the voice by the larynx. The experimental bases for the examination of respiratory function that are of phoniatric interest as well as the importance of pathological changes in sing- and speech respiration are considered. In the chapter on the Theory of Voice Formation the contribution "The Acoustic Basis of Voice Formation" by F. Winckel deserves particular mention. Numerous illustrations, graphs and tables facilitate the understanding of the physical processes and their experimental research, and of the resulting conclusions reflecting on the physiological phenomena. The comprehensive description of the electro-acoustic technique of measurement including the application of computers in voice research indicates the new direction in which experimental phoniatry is going. Besides attention is being given to the classical methods of voice examination and in this respect F. Wustrow contributed a separate chapter on the electromyography of the laryngeal muscles. A chapter particularly attractive to the voice therapeutist and the singing-teacher is that on individual vocal functions. Voice employment, voice register, type of voice and vocal pitch are being presented as functions determined by the breathing technique and the anatomical structure of the vocal organs and the supraglottic areas of resonance. The physiological chapter is completed by a presentation of voice heredity.

The second volume "Voice Pathology" confronts vocal disturbances of different origin with functional dysphonies. It is not entirely clear why pachydermia laryngis is considered together with functional dysphonies, since the latter are regarded voice disorders without laryngoscopic findings. This also supports the difficulty stressed by the author of exactly separating organic and functional changes.

The specific part on "Voice Pathology" naturally is of particular interest

to the clinical laryngologist. However he will find a differential amount of information. While hormonal voice disorders and also paralytic syndromes of peripheral and central origin are discussed in detail, there is lacking in this particular part any indication of the importance of the participation of the phoniatrist in the recognition and supervision of patients with malignant laryngeal tumors. Neither are there mentioned the adverse effects, increasing in the last years, of intubation procedures. Altogether the volume appears to be of value particularly to those concerned with the problems of scientific experimental phoniatry and related disciplines. However, also the singing-teacher may obtain useful information for his work.

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ARNOLD, GOTTFRIED E., (with contributions from EDELTRAUD BAAR, G. FANT, L. HEAVER, J. F. JACKSON, F. KAINZ, and CHRISTA SEIDEL), *Handbook of Voice and Speech Therapy, Volume 2, Speech and its disorders.*

The author succeeded particularly well in offering a comprehensive presentation of the entire field of speech therapy. In spite of the diversity due to the manifold and close interdisciplinary relationships, the treatment of the subject excels in systematic elaboration. The volume starts with a bibliography of pertinent books, monographs and periodicals on the subject, which facilitates study for those who wish to familiarize themselves with the entire subject. Each chapter is followed by references to specialized literature, and in these sections the North- and South-American material are particularly stressed.

The chapter by Ph.D. F. Kainz (Vienna) introduces the reader into the tight interlocking of linguistics and psychology. Psychology is also applied in the examination of persons suffering from speech defects. The examination of dumb children and of those with hearing and speech disorders is covered by the psychologists Ph.D. E. Baar (Vienna and Ph.D. Ch. Seidel (Heidelberg). The American psychiatrist Dr. L. Heaver (Tulsa, Oklahoma) deals with general clinical psychodiagnostics. Before that, however, there is a discussion about normal speech development, the relation of speech to constitution and music, as well as the morphology of the speech organs and the physiology of the speech sounds. The geneticist Dr. John F. Jackson (Jackson, Mississippi) presents the genetic aspects of speech. The description of methods of speech analysis and of comparative studies of speech operations elaborated by Prof. Dr. Ing. Gunnar Fant (Stockholm) suggests the integration of phonetics into linguistics.

In the specialized part of the volume follows the presentation of speech disorders in connection with pathophysiological and clinico-therapeutic aspects. The author was particularly successful in providing a clear review of the etiological diversity. He also proved himself an expert in all related

disciplines which are involved in the recognition and treatment of speech disorders. This fact renders the specialized part of the volume equally interesting to logopedists, phoniatrist, Ear-Nose-Throat specialists, pediatricians, neurologists, psychiatrists, and psychologists, as well as to jaw surgeons and jaw orthopedists.

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ABSTRACTS

Anderson, L. G., Cook, A. J., Coccaro, P. J., Coro, C. J., & Bosma, J. F., Familial osteodysplasia. *J. Amer. Med. Assoc., 220,* 1687–1693, 1972.

The authors have described what they feel is a new syndrome involving distinctive abnormalities of the facial bones which occurred in four members of a sibship, the product of a consanguineous marriage. It is felt that an autosomal recessive pattern of inheritance is strongly implied. The distinctive facial features of this syndrome are recessed flattened mid-face with diminished malar eminences and a narrow, prognathic jaw. There was a V-shaped, narrow lower part of the face, straightening of the mandibular angle, recession of the infraorbital margins as compared to the supraorbital ridges, prominent forehead, and varying degrees of dental malocclusion. No palatal defects were observed. Although the most distinctive abnormalities involved the facial bones, the calvarium, spine, clavicles, ribs, pelvis, femurs, and feet were also abnormal. All of the sibs were hyperuricemic and three had diastolic hypertension. The hyperuricemia and hypertension existed in the father and could have been familial and not related to the bone dysplasia. A genetic basis for the familial aggregation

was strongly implied by the horizontal nature of the pedigree (with abnormalities confined to a single sibship in the kindred), the even distribution between sexes, and the parental consanguinity (marriage between first cousins once removed). This article contains pictorial illustrations of the clinical and x-ray findings and brief reference to other similar syndromes as well as case presentations. (Gregg)

Ardran, G. M. & Kemp, F. H., A function for adenoids and tonsils. *Amer. J. Roentgenology, 114,* 268–281, Feb. 1972.

The purpose of this paper is to suggest that the role of the lymphoid tissue contained in the adenoids and tonsils is to serve as useful space fillers: closure of the nasopharynx and expression of the bolus in swallowing. The material available for study were lateral head and neck roentgenograms of newborn babies, infants, children, and adults, both normal and abnormal. They also included serial follow-up studies of 100 normal children from 6 months to 7 years of age. Lateral cinefluorograms were also available on many subjects. A description is given of the changing patterns of the tonsils and adenoids from birth (when no adenoidal or tonsillar masses are present) to the increased size at 5–7 years of age to the diminution of the mass in adults.

The growth of the adenoids and tonsils takes place at the time when the surrounding structures are not only growing, but changing their proportions relative to each other.

The authors discuss the changes with age in the level of the facial structures relative to the spine. Alteration in the form of nasopharyngeal closure at various age levels is described. At birth, closure is achieved by lifting the soft palate against the base of the skull; from six months of age, the soft palate is raised to the adenoidal pad; at the ages of 4–6 years, closure can occur in the adult manner. (Noll)

Billroth, T., On uranoplasty. *Plastic and Reconstructive Surgery, 50,* 71–74, 1972.

This portion of Billroth's classic paper on uranoplasty contains the first description of the fracturing of the hamuli. The paper is discussed and translated by Dr. Clodius of Zurich. (Cosman)

Bishara, S. E., and W. H. Olin, Surgical repositioning of the premaxilla in complete bilateral cleft lip and palate. *The Angle Orthodontist, 42,* 139–147, 1972.

This is a cephalometric study of two groups of patients with complete bilateral cleft lip and palate. In one group, the premaxilla was surgically repositioned at the time of lip surgery, while in the other group this surgical procedure was not performed. It was found that in all cases with surgical repositioning of the premaxilla, there was a lack of normal maxillary development resulting in an abnormally positioned maxilla in relation to the cranial base and to the mandible. Based on these findings, it is advised that early surgical intervention should be avoided, and that closure of the alveolar cleft be postponed until the time of palate surgery. (Luban)

Broadbent, T. R. and Woolf, R. M., Bilateral cleft lip repairs. Review of 160 cases, and description of present management. *Plast. Reconst. Surg., 50,* 36–41, 1972.

The authors review their past and present steps in the management of bilateral cleft lip patients. 160 cases form the basis of their report. At the present time they prefer a one stage Manchester type repair. They present impressive early photographs of their results. (Cosman)

Dickson, D. R. & Dickson, W. M., Velopharyngeal anatomy. *J. Speech Hear. Res., 15,* 372–391, 1972.

The velopharyngeal area was studied in seven adult and six fetal heads by gross

microscopic dissection, and in one additional fetal head by histologic sectioning and staining. In all cases except one, fibers of the superior constrictor muscle were found to insert into the velum. The salpingopharyngeus muscle was absent bilaterally in six of the 14 heads and was sparse in those heads where it was present. The tensor palatini muscle attached to the lateral membranous wall of the eustachian tube in all cases. The levator palatini muscle always lay lateral to the torus tubarius and inserted into the velum over a broad area extending from the region of the anterior aponeurosis to near the uvula. Speculations regarding muscle function in velopharyngeal closure are presented. (Authors' summary: Lerman)

Emanuel, I., Shih-Wen Huang, Gutman, Laura T., Fu-Chi Yu, and Chia-Chin Lin, The incidence of congenital malformations in a Chinese population: the Taipei collaborative study. *Teratology, 5,* 159–170, 1972.

The authors report on the results of an epidemiological survey of congenital malformations in 25,814 consecutive single and multiple births in six major hospitals in Taipei, Taiwan, over a three-year period. They found the malformation rate to be 13.23/1000 total single births. Compared to other populations, there were low rates of spina bifida (0.16/1000) and hydrocephalus (0.35/1000) and high rates of cleft lip with or without cleft palate (1.92/1000), radial polydactyly (1.02/1000), osteogenesis inperfecta (0.16/1000), and conjoined twins (1 in 6454 births), and average rates for anencephaly (1.17/1000). (Lass)

Farkas, L. G. & Lindsay, W. K., Morphology of the orbital region in adults following the cleft lip/palate repair in childhood. *Amer. J. Phys. Anthropology, 37,* 65–73, 1972.

Four measurements and two qualitative signs related to the orbits of 145 adult Caucasian cleft lip/palate operated on in childhood were compared with similar data on 100 normal Caucasian Canadians. The average interorbital distance in male patients with unilateral and bilateral cleft lip/palate was greater than in controls, while the interorbital distance in both male and female patients with isolated cleft palate was the same as in the controls. A hypertelorism increased interorbital distance of greater than 2 S.D. above the normal was recorded in 10 cleft patients out of 145, the maximum in male cleft patients being 48 mm and in female cleft patients 38 mm. Orbital eye fissue length asymmetry was seen only in the cleft study group while a dislocation of the eye fissure levels in the frontal plane was found both in patients with clefts and in controls. No direct relationship was found between the extent of the cleft and the incidence of hypertelorism, nor between the site of the cleft and eye fissure asymmetry in unilateral cleft lip/palate patients.

The epicanthic fold was significantly more frequent in cleft lip/palate patients (28/145) than in controls (10/100). Antimongoloid eye fissure type was recorded only in patients with cleft but mongoloid eye fissure was present both in patients with clefts and controls. (Authors' summary: Gregg)

Forsthoefel, P. F., The effects on mouse development of interactions of 5-fluorouracil with Strong's luxoid gene and its plus and minus modifiers. *Teratology, 6,* 5–18, 1972.

Pregnant females of five lines of mice selected for plus- and minus-modifying genes of the limb-skeleton effects of Strong's luxoid gene (*lst*) were each injected ip on days 8–11 of gestation with a single dose of 0.25, 0.50, or 0.75 mg of 5-fluorouracil (5-FU). The incidence and degree of expression of effects (cleft palate, neural hernia, eye defects, radial and tibial hemimelia, polydactyly, ectrodactyly, tail kinks, etc.) varied according to the day of injec-

tion, dose of 5-FU, genotype of the embryo (+/+, +/*lst*, *lst*/*lst*), and residual genotype (plus- or minus-modifying genes of *lst*). 5-FU increased the expression of the effects of *lst* on the skeleton. This action of 5-FU was inhibited by minus- and promoted by plus-modifying genes of *lst*. Thus, 5-FU and *lst* may effect skeleton development in similar ways. (Author's Summary: Lass)

Gifford, G. H., Jr., Swanson, L., and Mac Collum, D. W., Congenital absence of the nose and anterior nasopharynx. Report of two cases. *Plast. Reconst. Surg., 50,* 5–12, 1972.

Two cases of the rare anomaly of absence of nose and nasal airway are presented together with complicated procedures and multiple steps involved in an effort to reconstruct these unfortunate patients. (Cosman)

Gorlin, R. J. & Sedano, H., Otopalatodigital syndrome. *Modern Medicine, 40,* 78–79, 1972.

This syndrome is inherited as an X-linked trait of which males alone have the full-blown picture and consists of deafness, cleft palate, generalized bone dysplasia, and characteristic facies. Carrier females have less severe manifestations. Cleft palate is reported in all affected males but has not appeared in an affected female. Affected males have a characteristic pugilistic appearing face with prominent supraorbital ridges, frontal bossing, apparent ocular hypertelorism, antimongoloid obliquity of the palpebral fissures, flat nose with a broad nasal bridge, small mouth producing a "fish mouth" appearance.

The female carrier's face has prominent lateral supraorbital ridges. Early bilateral conductive hearing loss is noted and abnormally shaped ossicles have been reported. All patients have been mildly retarded with slow speech development. Skeletal findings include various abnormalities, such as small mandible with obtuse angle, moderate pectus excavatum, coxa valga, bilateral bowing of the femur, hypoplasia of the proximal radius with posterior dislocation, clinodactyly, short broad digital phalanges of fingers, shortened thumb, second ossification center at proximal of second metacarpal, and tear-drop shaped lesser multangular. The feet have a marked resemblance to those of a tree frog. Skeletal growth is retarded, below the tenth percentile. The authors have presented a didactic discussion accompanied by illustrative photographs. (Gregg)

Gorlin, R. J., Sedano, H., and Pantke, O. A., Stickler syndrome, hereditary progressive arthro-ophthalmopathy, *Modern Medicine, 40,* 114–115, 1972.

This is an autosomal dominant trait having complete penetrance and variable expressivity. It is characterized by progressive myopia and arthropothy, depressed nasal bridge, maxillary hypoplasia, and a long philtrum. Cleft palate or submucous cleft palate and bifid uvula are common. Rarely sensori-neural type hearing loss occurs. The progressive myopia is frequently associated with lattice degeneration and retinal detachment, accompanied by glaucoma and ambylopia, especially in childhood. The arthropathy consists of irregularly shaped articular surfaces of joints, enlargements of joints with marked stiffness, progressively impaired locomotion, and pain. Subluxation of hip joints occurs occasionally. Narrow intervertebral spaces in the spine and flattened vertebral bodies may lead to kyphosis or scoliosis. The thoracic kyphosis and mild flexion in the hips, knees, and ankles produces the typical body posture. The skeletal defects are apparently the result of abnormal development of the epiphyseal plates in the vertebrae and in the long bones. This is a short resume of the characteristic features of this syndrome accompanied by vivid illustrations. (Gregg)

Hart, J. C., Smiley, G. R., and Dixon,

A. D., Sagittal growth trends of the carniofacial complex during formation of the secondary palate in mice. *Teratology, 6,* 43–50, 1972.

Normal C57BL and A/J mice and A/Js with spontaneous bilateral cleft lip and palate were obtained at 13–16 days of gestation and the heads were prepared for serial sectioning in the sagittal plane. The midsagittal sections were photographically enlarged and measurements made to assess the amount and rate of growth. The C57BL fetuses outgrew the A/Js in all parameters. A mandibular growth spurt was not observed, but an increase in mandibular growth relative to that of the maxilla was found. Maxillary growth was less in malformed A/Js but the mandible was not micrognathic. The cranial base angle was not significantly different in normal and malformed A/J fetuses, but the vertical dimension was significantly greater in the former than the latter at days 15 and 16. The increase in the angle made by the mandible and the posterior cranial base before and during palatal closure appeared to have the greatest influence on the vertical dimension. (Authors' Summary: Lass)

Kaplan, I., Reconstruction of the columella. *Br. J. Plast. Surg., 25,* 37–38, 1972.

This article contains a brief description of a procedure for reconstruction of the columella. This procedure involves the use of bilateral inferiorly based naso-malar island flaps. (Lass)

Konigsmark, B. W., Nager, G. T., & Haskins, H. L., Recessive microtia, meatal atresia, and hearing loss. *Arch. Otolaryng., 96,* 105–109, 1972.

This is a report concerning two brothers one of which had bilateral and the other unilateral microtia, meatal atresia, and hearing impairment. Surgical reconstruction of the auricles produced moderate success. Temporal bone x-rays of one sibling showed absent external auditory canals, abnormal ossicles, and small middle ears The inner ears were normal. The authors have hypothesized that the two individuals who they investigated probably have a recessively inherited syndrome similar to that described by Ellwood, et al. Along with the illustrated case discussions there is a resume of the available literature. No clefting in the lip or palate was described accompanying this syndrome. (Gregg)

Lahti, A., Antila, E., and Saxen, Lauri, The effect of hydrocortisone on the closure of the palatal shelves in two inbred strains of mice *in vivo* and *in vitro*. *Teratology, 6,* 37–42, 1972.

This paper describes an experiment in which two inbred strains of mice, a resistant strain (CBA) and a susceptible strain (A), were injected *in vitro* with hydrocortisone. In both mice strains, the hydrocortisone was found to cause retardation of the fusion process of the palatal shelves, but never prevented it. These findings, along with those obtained from *in vivo* studies, provide further support to Fraser's hypothesis concerning the closure of the palatal shelves. (Lass)

Leck, I., The etiology of human malformations: insights into epidemiology. *Teratology, 5,* 303–314, 1972.

This paper discusses the epidemiological methods used for the investigation of causation of human malformations. Four types of epidemiological methods are used: descriptive, correlational, analytic, and experimental. However, epidemiological research on the common defects has been mostly descriptive in nature. The author reviews the results of these descriptive studies on clefts of the lip and palate and on neural tube defects, and discusses the need to go beyond the descriptive stage to correlational, analytic, and, ultimately, to experimental investigations. (Lass)

Lewin, M. L. & Argamaso, R. V., Mid-

face osteotomies for correction of facial deformities (craniofacial dysostosis and maxillary hypoplasia). *Trans. Amer. Acad. Ophthal. Otolaryng., 76,* 946–956, 1972.

The authors have presented an illustrated paper with a discussion of the use of maxillary osteotomy to achieve functional and cosmetic improvement in patients having congenital anomalies of the facial skeleton in which there is severe hypoplasia of the midface such as in a craniofacial dysostosis (Crouzon's disease; Alpert's disease), developmental skeletal deformities secondary to cleft lip and palate, malunited facial fractures, and major occlusal deformities associated with skeletal disproportion. They feel that midface advancement is a significant step in the rehabilitation of the severe facial deformity encountered in craniofacial dysostosis. (Gregg)

Mansfield, O. T., and Herbert, D. C., Unilateral transverse facial cleft—a method of surgical closure. *Br. J. Plast. Surg., 25,* 29–32, 1972.

The authors describe a technique involving two transposition flaps for surgical closure of unilateral transverse facial clefts. The technique differs from traditional closure methods in that it makes good the deficiency of tissue which results from such unilateral transverse facial clefts, resulting in improved facial contour. (Lass)

Miller, K. E., Allen, R. P., & Davis, W. S., Rib gap defects with micrognathia: the cerebro-costo-mandibular syndrome, a Pierre Robin-like syndrome with rib dysplasia. *Amer. J. Roentgenology, 114,* 253–256, Feb. 1972.

This paper reports two patients who presented clinically with the Pierre Robin syndrome and who were found to have severe rib defects. One patient had a "high arched and short" hard palate and whose father had a cleft palate. There was absent ossification of the ribs posteriorly. The second patient had a small hypoplastic mandible and a cleft of the soft palate. The tongue showed glossoptosis with a forked tip. In patients with this syndrome the degree of involvement of an individual rib varies from a short defect resembling a pseudarthrosis, such as is seen in the neurofibromatosis type of congenital bow legs, to total absence of the anterior three-fourths of the rib. Tissue examination in each case showed partial absence of cartilage and bone, with mostly undifferentiated fibrous and muscular tissue in its place. The defect in development apparently occurs in the transition from undifferentiated mesenchymal cell to cartilage. The addition of a defective thoracic cage to a respiratory system already impaired by glossoptosis and micrognathia may be enough to result in death, as was the case with these two cases. (Noll)

Miller, M. J., Frame, B., Poznanski, A. K., Jackson, C. E., and Bermudez, G., Branchial anomalies in idiopathic hypoparathyroidism: branchial dysembryogenesis. *Henry Ford Hospital Med. J., 20,* 3–14, 1972.

Four of 13 patients with idiopathic hypoparathyroidism had associated congenital anomalies of branchial origin. Three had characteristic hypernasal speech. One of these patients exhibited a cleft palate and the other two had functional and anatomic anomalies of the velopharyngeal musculature which explained the speech disturbance. The fourth patient represents the 22nd recorded case of the III and IV pharyngeal pouch (DiGeorge's) syndrome, manifested by absent parathyroids and thymus glands, associated with unusual facial features and cardiovascular anomalies. Our four patients exhibited a total of 15 congenital anomalies of branchial origin. By including our patients with those reviewed from the literature, 156 patients with idiopathic hypoparathyroidism had a total of 40 different kinds of anomalies of

branchial or primitive pharyngeal origin, including absence of the parathyroids. These anomalies of branchial origin may occur alone or in combination. We recommend that the term branchial dysembryogenesis be employed to broaden the III and IV branchial pouch syndrome by including multiple defects of branchial origin whether or not the parathyroids are included. Parathyroid insufficiency should be considered in patients with single or multiple congenital anomalies derived from the branchial arches and pouches. (Authors' summary: Gregg)

Onizuka, T., Repair of columella deformity in unilateral cleft lip. *Br. J. Plast. Surg., 25,* 33–36, 1972.

A surgical procedure is described which repairs the columella deformity in cases of unilateral cleft lip resulting from underdevelopment of the medial crus of the alar cartilage. Excess tissue from the nostril rim is used as a flap to compensate for the deficiency at the columellar base. (Lass)

Sapp, B., Quinn, G., & Pickrell, K., Treatment of cleft lip and palate patients. *J. Prosthetic Dent., 28,* 66–76, 1972.

Attention is again brought to the absolute necessity of a combined team approach and interdisciplinary cooperation in attempting to successfully treat a patient who has a cleft lip and palate. The over-all management would well be taken by the orthodontist who supervises the patient most frequently and over the longest period of time, and consequently gets to know the patient and his parents best. This case report illustrates the rebirth of a new personality in the being of a teenager who was successfully treated by all members of a team. (Goldenberg)

Spyker, Joan M., and Smithberg, M., Effects of methylmercury on prenatal development in mice. *Teratology, 5,* 181–190, 1972.

This study was concerned with determining the embryocidal and teratogenic effects of single doses of methylmercury dicyandiamide (MMD) to pregnant mice on their offspring. Single doses of 2, 4, or 8 mg/kg of MMD were administered to A/J and 129/SvS1 mice on days 6–13 of gestation. When fetuses were examined on days 15 or 18, it was found that MMD had caused the following: (1) for 129/SvS1 mice, 8 mg/kg administered on days 9–13 was very lethal, with a mean resorption rate of 86% and 100% for day 12; however, A/J mice were resistant to these embryocidal effects of MMD; (2) MMD was teratogenic, producing brain, palate, or facial defects in 129/SvS1 mice when administered on days 9–13, and producing palate and jaw defects in A/J mice when injected on days 9–13. Days of treatment, dose, and strain of mice were found to be important factors in the differential effects of MMD. (Lass)

Steffek, A. J., and Hendrickx, A. G., Lathyrogen-induced malformations in baboons: a preliminary report. *Teratology, 5,* 171–180, 1972.

Congenital malformations (and most frequently cleft palate) have resulted in rodent offspring whose mothers were treated with lathyrogens after ingestion of a 50:50 Lathyrus odoratus sweet pea diet, and in rats, rabbits, and ferrets treated with chemical lathyrogenic agents. The present paper describes a study whose purpose was to determine the teratogenic potential of two of the compounds of this drug in baboons. Female baboons were given intramuscular, intravenous, and oral doses of β-aminopropionitrile (BAPN) and aminoacetonitrile (AAN) during the time of the development of the palate in this species (days 40–50 of pregnancy). The effects on offspring included absorptions, resorptions, and skeletal defects. In addition, cleft pal-

ate was found in one set of twins after oral doses of 75 mg/kg/day of AAN were administered on days 43–48 of pregnancy. (Lass)

Waddell, W. J., The distribution of hydrocortisone-^{14}C, cortisone-^{14}C, and deoxycorticosterone-^{14}C in pregnant mice. *Teratology, 5,* 219–222, 1972.

The distributions of the glucocorticoid hydrocortisone-^{14}C and the mineralocorticoid deoxycorticosterone-^{14}C were compared with that of the natural murine hormone corticosterone-^{14}C by whole-body autoradiograph in pregnant A/J mice at 12.5 days of gestation. The patterns of distribution were similar for the three compounds. At 3 h after injection the highest concentrations of radioactivity were in maternal liver, bile, intestinal contents, kidney, and urine and uterine luminal fluid. Radioactivity in embryos was less than that in most maternal tissues. Embryonic brain had a slightly higher content and the embryonic palatal buds no higher amount of radioactivity than other embryonic tissues. The intense accumulation in the uterine lumen after all of the compounds suggests a secretory mechanism by the yolk sac that is not specific for a particular steroid. (Author's Summary: Lass)

Walker, J. C. Jr., and Sawhney, O. P., Free composite lip grafts. *Plastic and Reconstructive Surgery, 50,* 142–146, 1972.

The authors present 14 free composite lip grafts without any total loss and with superficial epithelial crusting as the only complication—crusting which proved inconsequential. The average transverse diameter of the grafts was 1.25 cm with the widest 1.5 cm. The authors' success in using such composite grafts in reconstructing cleft lip patients is impressive and their paper offers more evidence toward the feasibility of this approach obviating the need for Abbe flap construction. (Cosman)

Wickwire, N. A., White, R. P., & Proffit, W. R., The effect of mandibular osteotomy on tongue position. *J. Oral Surg., 30,* 184–190, 1972.

Mandibular osteotomy caused changes in tongue posture, as indicated by the hyoid position. These changes were related to reflex maintenance of a patent airway. The initial postoperative adaptation, usually downward and back, was followed by a tendency of the hyoid to return toward its original position. These changing tongue positions might be an adjustment to renewed mandibular function or perhaps an alteration in tongue morphology, per se, which allowed the root of the tongue to be repositioned upward. Small changes in horizontal mandibular position were accompanied by strong tendencies for anterosuperior hyoid repositioning. It appeared then, that stability of the surgical result could be associated in some way with the stability of the hyoid position. Vertical hinging of the mandible after restorative procedures or functional alteration in occlusal interdigitation was also related to an apparent anterior repositioning of the chin point. (Authors' summary: Noll)

Wong, L. & Weiss, C., A clinical assessment of obturator-wearing cleft palate patients. *J. of Prosthetic Dent., 27,* 632–640, 1972.

Two groups of patients with palatopharyngeal insufficiency were analyzed to determine which factors affect speech production with and without obturators. Obturators with gradually reduced bulb sizes were employed. It was found that patients could learn to speak well without obturation after a period of conditioning. Results show the younger the patient at start of obturation, the better were the chances for getting along without an obturator in the future. (Goldenberg)

Zimmerman, E. F., and Bowen, Donna, Distribution and metabolism

of triamcinolone acetonide in inbred mice with different cleft palate sensitivities. *Teratology, 5,* 335–344, 1972.

The distribution and metabolism of labeled triamcinolone acetonide was compared in A/J, C3H, and CBA inbred mice. ^{3}H-Triamcinolone acetonide (5 mg/kg) administered at day 11.5 of gestation caused 100% cleft palate in A/J, 40% in C3H, and 0% in CBA. A half to 3 h later CBA maternal tissue (skeletal muscle) contained 60% as much radioactivity as did A/J and C3H tissue. CBA mice metabolized the drug faster than A/Js and C3Hs, although levels of unmetabolized drug and metabolites in livers of the three strains were not significantly different. As a consequence of the increased maternal metabolism of the drug in CBAs the level of unmetabolized drug in CBA embryos was 60% of that in A/J and C3H embryos. It is concluded that the cleft palate resistance of CBA embryos derives from the increased maternal metabolism of administered teratogen. However, the greater resistance of C3H than A/J is probably not due to increased metabolism, nor to altered distribution of drug. (Authors' summary: Lass)

ANNOUNCEMENTS

Three New Section Editors Named by CPJ Editorial Board

The Editorial Board wishes to welcome three new Section Editors to its Staff: Dr. Josef Warkany will be in charge of the Section on Teratology; Dr. Jack Paradise on Pediatrics, and Dr. Al Burdi on Anatomy. These new Editors will provide the Board with added strength, since the Association has indicated an interest in broadening its horizons to include craniofacial malformations. We look forward to a pleasant association with the new Section Editors.

Second International Congress on Cleft Palate Copenhagen, 26–31 August, 1973

The congress is planned and organized jointly by the Scandinavian Association of Plastic Surgeons, the Scandinavian Orthodontic Society, and the Scandinavian Collaboration Board for Speech Pathology, and will be held in "Falkoner Centret", a modern congress centre and hotel in Copenhagen. The official language of the congress will be English. A preliminary program is being distributed to colleagues of various disciplines in many countries. A series of tentative scientific program topics within research as well as treatment is listed, including a session on the present management of severe craniofacial anomalies with an eye to the future. The scientific program will be presented as panel discussions, free communications, small group workshops (colloquium session), films, and exhibits—with emphasis on interdisciplinary topics.

Those who have not received a first announcement program with preliminary application form, please contact the Congress Secretariat: DIS Congress Service, 36 Skindergade, DK-1159 Copenhagen K, Denmark, or The General Secretary of the Congress, Dr. P. Fogh-Andersen, Diakonissestiftelsens Hospital, DK-2000 Copenhagen F, Denmark.

American Speech and Hearing Association to Sponsor Special Program in December

The American Speech and Hearing Association is sponsoring a special program at the annual meeting of the American Association for the Advancement of Science to be held in Washington, D. C., December 26–31, 1972.

The program, THE SPEECH PROBLEMS OF THE PATIENT WITH CLEFT PALATE: A MULTI-DISCIPLINARY APPROACH

TO THE DIAGNOSIS AND TREATMENT OF A MAJOR COMMUNICATION DISORDER, is scheduled at 2 p.m., Thursday, December 28, in Club Room A of the Shoreham Hotel. The program will focus specifically upon important recent interdisciplinary developments in the study of the anatomy and physiology of the velopharyngeal sphincter and in the treatment of this sphincter when in malfunctioning and restored states. Dr. Martin F. Schwartz, ASHA Program Chairman for the AAAS meeting and Professor of Speech at Temple University, developed this program and will chair the session. The participants and their papers will be:

Anatomy of the Normal and Cleft Palate Velopharyngeal Structures
David Ross Dickson, University of Pittsburgh
Videofluorographic Studies of Normal and Abnormal Functioning of the Velopharyngeal Sphincter
M. Leon Skolnick, State University of New York
Cleft Palate and the Respiratory Aspects of Speech Production
Donald M. Warren, University of North Carolina School of Dentistry
The Speech Sequela of Inadequate Velopharyngeal Closure
Kenneth R. Bzoch, University of Florida
The Surgical Repair of Cleft Palate
V. Michael Hogan, New York University Medical Center
Prosthodontic Treatment of Velopharyngeal Inadequacy
Seymour Birnbach, New York University, College of Dentistry
Speech Therapy for the Cleft Palate Patient
Sam Fletcher, University of Alabama

Registration fees for the AAAS annual meeting are $15 for individual registration, $20 for husband and wife, and $5 for youth registration (under 23 years old). For further information contact the American Association for the Advancement of Science, 1515 Massachusetts Avenue, N.W., Washington, D.C. 20005.

List of Cleft Palate Parent Groups Being Complied by Texas Woman's University

In the January, 1972, issue of the Cleft Palate Journal there was a notice requesting help in locating cleft palate parent groups. To date, sixteen groups have been located: eight in California; three in New York; two each in Iowa and Michigan, and one in Pennsylvania. If you should know of other parent groups, please send the names and addresses to: Laura Lipski, President, Cleft Palate Parent's Council, Suffolk Chapter, 28 Surf Road, Lindenhurst, New York 11757, or Mary Pannbacker, Ph.D., Speech and Hearing Clinic, Texas Woman's University, Denton, Texas 76204.

The present list will be supplied upon request.

Association Award for Best Student Paper of Merit

The Association plans to present an award for the best student paper of merit on a subject of interest delivered before The American Cleft Palate Association at the Oklahoma meeting. The Editoral Board will serve as judges. The award will be free transportation to the Second International Congress on Cleft Palate in Copenhagen, August, 1973. Any student or resident engaged full time in a formal education or training program is eligible. Papers to be presented should be submitted to the Program Chairman.

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