BOOK REVIEW

Second Symposium On Oral Sensation And Perception, Edited by James F. Bosma, M.D., Charles C. Thomas, Publisher, 1970.

The preface to *The Second Symposium on Oral Sensation and Perception* describes this volume as a report of an invitational National Institute of Dental Research Conference held at the National Institutes of Health, November 20-22, 1967. The volume includes reports of more recent research by individuals and groups some of whom had participated in a similar 1964 NIDR conference. The results of the latter conference were included in *The First Symposium on Oral Sensation and Perception,* published in 1967.

In contrast to the 1967 volume, which dealt primarily with basic background studies of sensory systems relative to oral function and with applied tests of oral stereognosis, the present volume has broadened its scope. Included are studies relating to the taste mechanism and neurophysiological studies of oral afferents. In addition there is a section descriptive or fetal oral function, remarkably illustrated by motion picture recordings. The section on newborn sucking behavior describes a methodology for assessing this phenomenon and suggests that such early appraisals of individual differences in sucking behavior may be helpful in predicting intellectual development as well as in the early diagnosis of CNS dysfunction.

Part V continues the exploration of the earlier volume in that this section is concerned with the evaluation of oral sensation and perception. Tests of two-point discrimination of the oral region as measured by the oral two-point ethesiometer, developed by Ringel, are shown to be reliable, Ringel's study of twenty-five normal adults as well as conclusions from other studies showed a steady change from maximal to minimal two-point discrimination beginning with the tongue and ending with the ethnar region. A dystrophic group in a study by the same author differed in degree of limen value although the progression of change was virtually the same.

The assessment of oral form perception ability continues with populations having differing types of nervous system, oral structure, and speech disturbances. For example, Henkin's study of manual and oral stereognosis in normal volunteers and in patients with various chronic diseases suggests that tests of both manual and oral stereognosis may be used "to distinguish between normal subjects and patients with various disease states." In the latter as in other studies in this symposium, hyposmia appears to be related to oral stereognosis.

Following the presentation of studies reflecting the refinement and

standardization of oral stereognosis tests, there are several studies concerned with oral, manual, and visual form identification in children and adults. Readers of this journal who are speech specialists will no doubt share Bosma's regret (p. 396) "that the tests of oral touch and form recognition have not proven to be tools that afforded ready access to the sensory mechanisms involved in speech articulation." Bosma's comment follows a paper by McDonald and Aungst. This study presents a case report of a young man with spastic paraplegia and normal articulation who experienced difficulty in oral form identification and in one- and two-point discrimination. As further evidence of the lack of a clear relationship between oral stereognosis and articulatory movements, the same authors present extremely low correlations between scores on oral stereognosis and abutting consonant articulation scores for a group of two hundred children from kindergarten through third grade. On the other hand, Ringel, Burk, and Scott, eliminating the intersensory nature of form matching tasks used by other investigators, show that oral form discrimination by itself is positively related to functional articulation errors in a group of articulatory-defective college students.

One gathers from reading the varied reports in this section of the Symposium that the present measurements of two-points discrimination and stereognosis may not always be assessing the skills or activities required for normal speech performance. At the same time it cannot be said that tactile feedback is necessarily not important for speech. Rather it seems that there need to be further refinements in the methods of measurement in order to increase their validity. The reader is left with the distinct impression that the assessment of oral sensation will continue with ever increasing refinement of method and, as a result, ever increasing knowledge of the perceptual-motor function of the oral mechanism.

Two studies on nonspeech voluntary palate movements show the difficulty inherent in studying kinesthesis of the palate. These studies once again remind the speech pathologist that teaching awareness of palatal movement may not be a realistic goal in speech rehabilitation. "Speech is probably more effectively influenced by training procedures that involve speech as opposed to nonspeech acts," the authors conclude.

The sixth and final division of this volume is composed of three supplementary contributions. Auditory memory span and oral stereognosis in forty-two children recovered from severe protein malnutrition (kwashiorkor) are compared to those same abilities in 248 children who had not been hospitalized but who showed defects associated with histidinemia. This report by Witkop, Baldizon, Castro and Umana will be of value to all persons interested in the argument for there being a critical age for learning in children. It is the opinion of the authors that the nature of the differences found in this pilot study points to the desirability of early detection and investigation of protein malnourished children.

The report of a study of five children exhibiting multiple facial anom-

alies by Henkin, Christiansen, and Bosma will be of special interest to readers of this journal. According to these authors, "the concurrence of hypoplasia of the basicranium, facial skeleton, and hard and soft palate with impairment of sensory, perceptual and motor function in the oral, facial, and/or pharyngeal areas and general retardation of skeletal growth has not been previously described." Part VI concludes with Henkin's paper, a detailed comprehensive account of neuroendocrine control of sensation.

The summarizing and perspective comments by Chase, Cooper, Paine, and Bosma make for more than interesting reading and certainly reveal a comprehensive and sensitive appreciation for the quality and diversity of the presented papers, the work of fifty-six contributors.

In summary, this *Second Symposium on Sensation and Perception* will provide much interesting and provocative information to all those interested in the function of the human oral mechanism. In addition, the advances in methodology pertaining to the assessment of oral sensation and perception as revealed in this publication will provide greater insight and inspiration for those individuals interested in continuing research of the sensorimotor function of the mouth. Many avenues of further exploration are suggested. The *Second Symposium* is indeed an admiral piece of work.

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ABSTRACTS

Aramany, M. A. & Matalon, V.; Prosthetic management of post-surgical soft palate defect. *Journal of Prosthetic Dentistry, 24,* 304–311, 1970.

The authors describe methods of treatment and discuss techniques of taking of impressions. Report of a case illustrates the use of the velar speech aid in an edentulous case. The design of the speech aid is divided into four groups, depending upon the type of deformity. (Goldenberg)

Babula, W. J., G. R. Smiley, & A. D. Dixon; The role of the cartilaginous nasal septum in midfacial growth. *American Journal of Orthodontics, 58,* 250–263, 1970.

Forty-nine fetuses in varying stages of development of an inbred strain of A/Jay mice were paired with non-cleft littermates. The heads were sectioned and outlines of various anatomic landmarks were traced and analyzed cephalometrically. The results of this study indicate that the septal cartilage does have some influence on early midfacial growth, but that it is probably not a dictator of this growth. It was discovered that there were no differences in development of the cranial bases between normal and cleft fetuses. The

amount of extension of the cranial base was not found to be an important etiologic factor in the formation of a cleft secondary plate. (Luban)

Boo-Chai, K., & Tange, I.; The Origami cleft lip. *British Journal of Plastic Surgery, 23,* 248–253, 1970.

In an attempt to learn more about the cleft lip deformity, the authors have constructed Origami (the art of paper folding) patterns of the cleft-lip nose complex. From such patterns the authors have discovered the following: (1) there is only a slight difference between the perimeter of the nostril of the cleft and the non-cleft side; (2) when the cleft side is pulled (with a consequent widening of the cleft), the slack is taken up by the acuteness of the columella side; (3) a triangular defect is evident in the lower portion of the columella border of the cleft; (4) there is an "excess" triangular-shaped area which borders the cleft side of the lip; and (5) the ala and its skin on the cleft side appear stretched. However, this condition spontaneously corrects itself after lip repair. Illustrations of the Origami patterns are provided. (Lass)

Brown, K. E.; Clinical considerations improving obturator treatment. *Journal of Prosthetic Dentistry, 24,* 461–466, 1970.

In cases where radical surgery results in extensive loss of hard and soft tissues, prosthetic replacement can be achieved to obturate the void. Retention and stability of the appliance appear to be improved by weight reduction. Complete seal of the bulb design is important to avoid seepage of fluids into the chamber. The material of choice is still acrylic. (Goldenberg)

Co-Te, Pacita, Dolman, Clarisse L., Tischler, Bluma, & Lowry, R. B.; Oral-facial-digital syndrome. *American Journal of Diseases of Children, 119,* 280–283, 1970.

A case of oral-facial-digital (OFD) I syndrome is described and necropsy studies showed very extensive abnormalities of the central nervous system (CNS) but with normal visceral findings. Porencephalias and hydrocephalus appear to be the most common malformations associated with the syndrome. Information on the anatomical pathological condition of the CNS is scant, and the true incidence will only be known when more necropsies are available. (Authors' summary: Berkowitz)

Converse, J. M., Horowitz, S. L., Valauri, A. J., & Montandon, D.; The treatment of nasomaxillary hypoplasia. A new pyramidal naso-orbital maxillary osteotomy. *Plastic and Reconstructive Surgery, 45,* 527–535, 1970.

A single, well described case is presented in which a short retruded nose and midface was lengthened and brought forward by means of an osteotomy passing through the nasal glabella region, behind the lacrimal apparatus, medial to the infraorbital foramen on each side, and across the hard palate posterior to the canines. Details of preserving nasal lining by freeing the upper lateral cartilages from beneath the nasal bones and separately freeing the lower lateral cartilages from the upper laterals are given. Nasal contour restoration was achieved by the addition of a bone graft. The gaps in the mid-facial skeleton were filled with bone graft also. The external nasal wound was closed by a V to Y advancement. While the drawings show a preoperative underbite corrected to normal occlusion with appropriate overjet, the photographs of the dental casts are less convincing. The procedure is an additional technique that can be carried out for the radical correction of a cleft lip-palate patient who has a retruded maxilla of mild degree and in whom loss of malar eminence is not a major factor in the defect. (Cosman)

Conway, H., Smith, J. W., & Behrman, S. J.; Another method of bringing the midface forward. *Plastic and Reconstructive Surgery, 46,* 325–331, 1970.

The authors report a Le Fort II type division of the maxilla to achieve maxillary advancement in a patient with post traumatic deformity. The procedure is diagrammed and appears a worthwhile contribution to the procedures previously described to achieve this purpose. (Cosman)

Crawford, B. S.; The management of perforating wounds of the palate. *British Journal of Plastic Surgery, 23,* 262, 1970.

The author discusses the proper treatment of perforating wounds of the palate. It has been found that such wounds should be left to heal spontaneously except in rare instances of a torn palatine artery or in patients in whom a foreign body is embedded in the tissues. (Lass)

Davis, S. D., Nelson, T., & Shepard, T. H.; Teratogenicity of vitamin B6 deficiency: omphalocoele, skeletal and neural defects, and splenic hypoplasia. *Science, 169,* 1329–1330, 1970.

Because Vitamin B6 deficiency causes convulsions in newborn infants and impairs immunologic response in experimental animals, such deficiency was used to study pregnant rats and their fetuses. The vitamin B6 deficiency was caused by the use of a deficient diet and with 4-deoxypyridoxine (a B6 antagonist). The female rats developed skin changes typical of B6 deficiency. The offspring of the five control rats showed no gross fetal abnormality. Offspring of the fifteen treated rats showed the following gross fetal anomalies: digital defects—48, cleft palate—20, omphalocoele—12, micrognathia—8, exencephaly—6. Although the authors had expected the B6 deficiency in fetal rats to cause typoplasia of all lymphoid tissue, they were surprised to find that the thymus appeared grossly normal and was only slightly smaller than in the controls. The authors developed this teratologic system as a model for human syndromes which have combined immunologic and neurologic or skeletal defects. (Gregg)

Dellon, A. L., & Hoopes, J. E.; The palate analogue: an approach to understanding velopharyngeal function. *British Journal of Plastic Surgery, 23,* 256–261, 1970.

A functional mechanical model of the velopharynx, referred to as a palate analogue, is described. Included are discussions of the operation of the model, its calibration, quantitative assessment of the model, and applications of the model to the fields of anatomy, speech pathology, and surgery. (Lass)

Dumars, K. W., Carnahan, L. G., & Barrett, R. V.; Median facial cleft associated with ring E chromosome. *J. Med. Genet., 7,* 86–90, March 1970.

This is a case report of a newborn female with a ring E chromosome whose phenotype included microcephaly, median facial cleft, and hypertelorism. Pregnancy was complicated by maternal exposure to rubella during the third month. The infant had an absent prolabium and premaxilla. Radiographic appearance of the skull was consistent with arrhinencephaly. Karyotyping of the mother and father revealed normal chromosomal complements. This is the first reported instance describing a ring E chromosome associated with these phenotypic characteristics. (Noll)

Epstein, L. I., Davis, B. W., & Thompson, L. W.; Delayed bone grafting in cleft palate patients. *Plastic and Reconstructive Surgery, 46,* 363–367, 1970.

From 1962 to 1968 the authors performed 50 bone grafts to the maxilla in

48 cleft palate patients ranging in age from 6 months to 22 years. Follow up ranged from 8 months to 65 months. 31 of the patients in whom 33 bone grafts had been performed had reexamination in a special clinic established to evaluate the operative results. Indications for the procedure were divided into functional and esthetic. Functional indications included prevention of arch collapse, stabilization of premaxilla, augmentation of alveolar ridge, crowding of teeth and closure of oronasal fistula. Esthetic indications included elevation of the ala base in nostril floor and elevation of the upper lip. Rib was used as the source of bone graft in all cases. Results in the functional categories were satisfactory in 81% of the cases. Patients with esthetic indications had good results in 61% of cases. The experience of the authors leads them to believe that bone grafting is most useful when delayed until the late secondary dentition has erupted when functional requirements may be satisfied best and esthetic needs judged most accurately. The authors have never seen teeth migrating into the bone graft or erupting through it as has been suggested by others. (Cosman)

Fara, M., & Dvorak, J.; Abnormal anatomy of the muscles of palatopharyngeal closure in cleft palates. Anatomical and surgical considerations based on the autopsies of 18 unoperated cleft palates. *Plastic and Reconstructive Surgery, 46,* 488–497, 1970.

In 18 autopsies of stillborn children with various types of cleft palates, abnormalities of insertion were found affecting the palate muscles. These are described and diagrammed. The authors consider the proper anatomical reconstruction of the muscles to be essential to achieve a functional rehabilitation of the soft palate. In their opinion it is necessary to detach the substitute insertions on the posterior edge of the hard palate and sever the junction between the tensor and the levator close to the cleft margin enabling the surgeon to shift the muscles of the velum both backward and medially. Lateral tension is removed by infracturing the hamulus and carrying the muscle insertions to a more medial position. (Cosman)

Farina, R., & Cury, E.; Labial malocclusion (Labium arcuatum). *British Journal of Plastic Surgery, 23,* 254–255, 1970.

Two cases of labial malocclusion, a rare deformity, are presented. The authors describe the suspected cause and surgical correction of this deformity. They report good results from the surgical treatment of the condition. (Lass)

Feingold, A., & Zarem, H. A.; Innovar with local anesthesia for facial surgery. *Plastic and Reconstructive Surgery, 46,* 125–129, 1970.

Innovar is a combination of a potent tranquilizer, droperidol, and a narcotic, fentanyl. The drugs produce a profound tranquilization state termed neuroleptanalgesia. The authors report their experience with 100 facial operations carried out over a period of 18 months. Details of the dosage, mode of administration, and complications are discussed. Hypoventilation was the major problem but airway obstruction did not occur. Postoperatively, the long recovery period was a disadvantage. Innovar alone was found in some cases to permit a procedure that the patient later reported was painful. Accordingly, the authors recommend that the agent be supplemented by local anesthesia. (Cosman)

Galkowski, T., Gassowski, P., & Grossman, J.; Influence of hearing disorders on development of speech in children with cleft lip palate. *Folia Phoniatrica, 22,* 72–78, 1970.

The purpose of this study was to determine if cleft palate children with marked

impaired hearing differ from cleft palate children with no considerable hearing impairment in speech development, articulatory skills, intelligibility, and degree of speech improvement with therapy. A speech examination consisted of assessment of development of linguistic form and defects of articulation. Audiological assessment included examination of phonoreception and speech audibility. Results indicate that cleft palate children with marked hearing impairment show less speech development and poorer intelligibility than cleft palate children having no considerable hearing difficulty. In addition, speech therapy improved the intelligibility of the speech of the majority of children in both groups. (Lass)

Ghose, L. J., Giddon, D., Shiere, F., & Fogels, H.; Evaluation of sibling support, *Journal of Dentistry For Children, 36,* 35–49, 1969.

A controlled clinical study was conducted to determine the extent to which the presence of older siblings influenced the behavior of children, ages 3–5 during initial experience in a dental office. Results show a highly significant positive influence of the older sibling on the overall behavior of the younger child. The behavioral responses studied were: (1) entering the operating room for the first time; (2) during operative treatment; (3) during insertion of filling materials. The presence of the older sibling was most significant in the four year old group. (A. Goldenberg)

Gorlin, R., Cervenka, J., Anderson, R., Sauk, J., & Bevis, W.; Robin's syndrome. *American Journal of Diseases of Children, 119,* 176–178, 1970.

A case is described exhibiting micrognathia, cleft palate, talipes equinovarus, atrial septal defect, and persistence of the left superior vena cava. The pedigree would suggest X-linked recessive inheritance. The authors consider Robin's syndrome to represent a heterogeneous group of disorders having in common a small lower jaw and glossoptosis resulting in respiratory distress. (Berkowitz)

Gorlin, R. J. & Sedano, H.; Cat-cry (5p-) and Wolfs' (4p-) syndromes. *Modern Medicine, 38,* 158–159, 1970.

The Cat-cry syndrome consists of a cat-like cry present during the first year of life, microcephaly, mental retardation, apparent ocular hypertelorism, antimongoloid obliquity of palpebral fissures, abnormal dermatoglyphics, micrognathia, or retrognathia, and low set ears, while Wolf's syndrome consists of microcephaly, seizures, mental retardation, ocular hypertelorism, coleboma of the iris or retina or both, antimongoloid obliquity of palpebral fissures, low set and malformed ears, clefting of the lip and/or palate, and hypospadias. The authors have presented an illustrated discussion of these two syndromes along with a discussion of the genetics involved. (Gregg)

Gorlin, R. J., & Sedano, H.; Frontonasal dysplasia. *Modern Medicine, 38,* 224–225, 1970.

This non-genetic congenital disorder characterized by ocular hypertelorism, broadening of the nasal root, median facial cleft affecting the nose or both nose and upper lip, occasionally the palate, unilateral or bilateral clefting of the nasal alae, lack of formation of the nasal tip, anterior cranium bifidum occultum, and V-shaped hair prolongation onto the forehead usually over the area of cranium bifidum, is described and illustrated by the authors. The anomalies which are limited to the head are reported to be due to interference with the normal embryologic development of the face, especially the nose, the interference taking place at different stages of development. (Gregg)

Gorlin, R. J., & Sedano, H.; Hemifacial microsomia and oculoauriculoverte-

bral (Goldenhar's) syndrome. *Modern Medicine, 38,* 156–157, 1970.

Unilateral microtia and macrostomia and failure of formation of the mandibular ramus and condyle is referred to as Hemifacial Microsomia by Gorlin and Pindberg. They feel that this is a variant of Oculoauriculovertebral Dysplasia (Goldenhar's syndrome) which is characterized by vertebral anomalies, frequently hemivertebrae, and epibulbar dermoids of the eyes. The authors have seen patients showing transition forms and feel that these two symptom complexes cannot be separated into separate entities at the present time. About 7% of the patients with this anomaly have an associated cleft lip or palate. The authors have presented a discussion of this problem accompanied by appropriate illustrations. (Gregg)

Hamlen, Margaret; Speech changes after pharyngeal flap surgery. *Plastic and Reconstructive Surgery, 46,* 437–444, 1970.

Results on 95 patients with velopharyngeal insufficiency who had failed to benefit from speech therapy and underwent palatopharyngeal flap operation are reported. The operation performed was a modification of the Rosenthal procedure. 64 pharyngeal flaps were superiorly based and 27 were inferiorly based. Each patient was assessed 7 to 10 days after surgery by the speech therapist. The spontaneous response to surgery appeared to be influenced more by the type of speech defect which the patient had had previously than by any other factor. 6 patients who spoke with nasal air emission were speaking normally 10 days after the operation and continued to do so. However, speech defects resulting from poor perception of speech sounds as well as malfunctioning of the speech mechanism were not so readily altered by operation alone. So far as final results were concerned, patients who spoke with nasal air emission generally required less speech training than those who had been using faulty sound substitutions. The worst results in the study were produced by children who had been substituting non speech sounds, whose intelligence was below an I.Q. of 80 and who had had a hearing loss. This carefully carried out study merits attention. (Cosman)

Jobe, R. P., & Laub, D. R.; Combined surgical reconstruction of the maxilla and mandible for vertical disproportion. *Plastic and Reconstructive Surgery, 46,* 252–255, 1970.

A patient with a post traumatic elongation of the left side of the face was treated by a transverse wedge resection of the maxilla together with a vertical osteotomy of the left mandibular ramus. Soft tissue redundancy on the shortened side required a later meloplasty, an augmentation of the malar eminence with a silicone implant, and resection of the lower border of the anterior mandible was also carried out. This case offers further evidence of the increasing freedom with which the maxilla and mandible are being manipulated to achieve radical changes in contour. The photographs presented do not fully convince the observer that the degree of initial deformity merited the multiplicity of procedures carried out. (Cosman)

Kelsey, C. A., & Ewanowski, S. J.; Pharyngeal wall motion in esophageal speech. *Arch. Otol., 92,* 167–172, 1970.

Pulsed ultrasound is used to monitor the motion of the lateral pharyngeal wall in alaryngeal speakers. Air intake for esophageal speech is by two mechanisms, inhalation and injection. This study of four patients yielded data on the latency period between the onset of injection of air and the onset of phonation and revealed other phenomena. The authors conclude that the results of this preliminary report indicate that this technique permits the study of the static, dynamic, and temporal aspects of lateral pharyngeal wall displacement during the production of esophageal speech

with the notation that the latency period from the beginning of the injection maneuver to the onset of phonation is longer in poor esophageal speakers than it is in the good speakers. (Gregg)

Laub, D. R., Prolo, D. J., Whittlesey, W., & Buncke, H. Jr.; Median cerebrofacial dysgenesis. *Northwest Med., 69* (5), 19–21, *Western J. Med. insert,* May 1970.

The authors discuss arhinencephalia and present a case report. In contrast to the unilateral or bilateral cleft lip and palate which have no significant associated severe anomalies, the median cleft lip is often accompanied by marked brain dysgenesis. Arhinencephalia is rare but runs a typical clinical course and is easily recognized by the median facial anomalies: median cleft lip, or bilateral cleft lip with absence of median philtrum and premaxilla and prolabium anlage, associated with hypertelorism, flat nose, microcephaly and sometimes trigonocephaly. The reported genetic deformity is a 13–15 (D_1) trisomy with associated cardiac, visceral, skin and extremity anomalies in addition to the holoprosencephaly. The patient's life expectancy usually is less than one year. Therapeutic efforts should be undertaken only with full understanding of the overall prognosis. Repair of the cleft lip may aid in feeding and improve the appearance and is indicated if the surgery is feasible and the parents are highly motivated. (Ashley)

Lowry, R. B.; Sex-linked cleft palate in a British Columbia Indian family. *Pediatrics, 46,* 123–128, 1970.

The author reports that an Indian family in British Columbia, in which twelve (12) persons, all male, were found to be affected by clefts of the secondary palate alone. The majority of those affected had a submucous cleft (i.e., intact mucosa with a cleft of the muscle). There was considerable variation in palatal morphology. However, most showed either an absent uvula or a small cleft in the posterior edge of the soft palate. A palpable notch in the posterior edge of the hard palate was found in almost all of the patients. The lack of awareness among pediatricians and general practitioners of the submucous cleft palate entirely and the fact that the child with a submucous cleft is often subjected to a tonsilectomy and adenoidectomy resulting in worse speech, is mentioned. The pedigree of the reported family suggests that the defect in this family may be the result of a single gene, either x-linked or sex-limited autosomal recessive. (Troutman)

Massengill, R., Pickrell, K., & Mladick, R.; Lingual flaps: effect on speech articulation and physiology. *Annals Otol., Rhinol., Laryng., 79,* 853–857, 1970.

To close large anterior palatal fistulae, the authors have used mucosal flaps from the tongue, employing essentially the technique outlined by Guerrero-Santes. They have utilized cinefluorographic analysis, lingual pressure scores, paired t-tests, and articulation tests to assay the results in four patients. The lingual flap procedure had no adverse effect upon articulation. Each patient had complete velopharyngeal closure by cinefluorography and their lingual pressure scores were not statistically different than controls who had normal tongues. There was no statistical difference between the test cases and controls in vertical lingual movements and no difference in lingual diadochokinetic abilities. (Gregg)

McConnel, F. M. S., Zellweger, H., & Lawrence, R. A.; Labial pits—cleft lip and/or palate syndrome. *Arch. Otolaryng., 91,* 407–411, 1970.

The syndrome of labial pits and cleft lip and/or cleft palate (PiCLCP) is char-

acterized by the association of mucosal pits in the vermilion of the lower lip with clefts of the upper lip and/or palate. It appears to be transmitted as an autosomal dominant trait of single gene conditions with complete penetrance being the prevalent pattern. Usually the labial pits occur in pairs, and are symmetrically placed on the vermilion border. In a number of cases a single pit is present, suggesting incomplete expression of the trait. Expressivity of the mutant gene is quite variable. Family pedigrees are presented of five probands exhibiting the syndrome PiCLCP. A satisfactory cosmetic result can be achieved by total excision of the pits provided one preserves the vermilion border. (Noll)

McCrea, R. S., & Jones, J. H.; Heterotopic brain tissue in the palate. *Journal of Laryngology and Otology, 84,* 229–234, 1970.

The authors report a case in which glial tissue extends from the lateral pharyngeal wall into the soft palate. Skull radiographs revealed bony erosion involving the middle fossa to include the foramen spinosum, the foramen ovale and apparently the left occipital condyle. At five months of age, the palatal portion of the heterotopic brain tissue was removed without residual neurological or other defect. Microscopic exam did not reveal evidence of a teratoma and thereby the authors concluded the tumor was an encephalocoele-like malformation. Case reports of similar lesions are reviewed and it is noted that respiratory obstructions are frequent complications. (Weeks)

Mouly, R.; Correction of hypertrophy of the upper lip. *Plastic and Reconstructive Surgery, 46,* 262–264, 1970.

Upper lip hypertrophies are classified either as congenital—including double lip, hemangioma or lymphangioma, and racial or acquired—glandular macrocheilia, central facial neurofibromatosis, Ascher's syndrome and Melkersson-Rosenthal syndrome. A case of Ascher's syndrome consisting of blepharochalasis, macrocheilia, and endocrine disorder, and one of Melkersson-Rosenthal syndrome including facial edema with macrocheilia, lingua plicata, and facial paralysis, are presented. For severe cases, the author proposes the resection of two lateral triangular wedges along the philtrum lines in addition to transverse excision in the lateral segments of the lip. (Cosman)

Nanda, R.; Maxillomandibular ankylosis and cleft palate in rat embryos. *Journal of Dental Research, 49,* 1086–1090, 1970.

Vitamin A introduced into the diets of pregnant rats resulted in embryos with cleft palate and maxillomandibular ankylosis. It is postulated that this ankylosis produced by heterotopic cartilage results in disturbed development and function of the mandible. Because of this condition, the oro-facial structures can not develop normally, and a sequence of events occurs which results in cleft palate. (Luban)

Nanda, Ravindra; The role of sulfated mucopolysaccharides in cleft palate production. *Teratology, 3,* 237–244, 1970.

Offspring of rats treated with vitamin A, cortisone, or both drugs were studied with the aid of ^{35}S-sulfate to investigate whether sulfated-mucopolysaccharides have a role in cleft palate production. Vitamin A alone or combined with cortisone produced a high frequency of cleft palate. Cortisone alone produced no clefts. Autoradiographic results showed that ^{35}S-sulfate incorporation in palatal tissue of control fetuses and those from rats treated with both drugs was almost similar, whereas isotope incorporation was several times higher than this in the vitamin A-treated group and slightly less than this in the cortisone-treated group. The results appear to indicate that there is no relation between disturbed sulfate mucopoly-

saccharide metabolism and the production of cleft palate. (Author's Summary: Lass)

Natvig, P., Sicher, H., & Fodor, P. B.; The rare isolated fracture of the coronoid process of the mandible. *Plastic and Reconstructive Surgery, 46,* 168–172, 1970.

Fractures of the coronoid process of the mandible are classified as intramuscular and submuscular, the latter further divided into marginal submuscular and submarginal submuscular. Intramuscular fractures do not require operative treatment. The displaced submuscular fracture may be treated by fixing the teeth in occlusion but if occlusion is satisfactory no fixation is required. Two of these rare isolated fractures of the coronoid are presented. (Cosman)

Noordhoff, M. S.; The island flap in secondary cleft palate surgery. *Plastic and Reconstructive Surgery, 46,* 463–467, 1970.

5 patients who had had previous palatal surgery which had resulted in dehiscence, oro-nasal fistula, and severe scarring were reoperated upon. In 4, a combined procedure employing a push-back, a Millard island flap, and a superiorly based pharyngeal flap was carried out. 1 patient required a 500 cc blood transfusion during surgery; another had postoperative hemorrhage necessitating reoperation and transfusion. However, the overall results were good and speech was markedly improved in all. The precise rationale for the multiple procedures employed is not clearly stated. (Cosman)

Oluwasanmi, J. O., & Adekunle, O. O.; Congenital clefts of the face in Nigeria. *Plastic and Reconstructive Surgery, 46,* 245–251, 1970.

128 cases were treated in 11½ years. In isolated cleft lips there was no male preponderance as has been reported in other populations and the same was true for combined clefts of lips and palates. The female preponderance found in isolated cleft palates is comparable to other reports. Other details of this Nigerian experience are presented. (Cosman)

Riley, C.; Treatment obturators for edentulous patients. *Journal of Prosthetic Dentistry, 24,* 312–319, 1970.

Prosthetic planning and rehabilitation following surgical procedures involving the maxilla resulting in anatomic and functional loss is described in this article. The technique for a prosthetic restoration is explained in detail. Patients are consulted before surgery and prepared for the possible shock that is to come. Whenever possible an acceptable rapport should be established with the patient prior to surgery. As much as possible, the prosthesis is prepared prior to surgery. The final fit and fabrication with quick-cure acrylic resin is made after healing takes place. (Goldenberg)

Robinson, D. W., Ketchum, Lynn D., & Masters, F. W.; Double V-Y procedure for whistling deformity in repaired cleft lips. *Plastic and Reconstructive Surgery, 46,* 241–244, 1970.

The patient whose bilateral cleft lip repair has left him with a broad but shallow "whistle" deformity can be benefited by V shaped 4 flap advancement and transposition using the lateral fullness to fill the central defect. Details of the procedure and photographs of uniformly good to fair long term results are presented. (Cosman)

Roux, C., Dupuis, R., & Aubry, M.; LSD: No teratogenic action in rats, mice, and hamsters. *Science, 169,* 588–589, 1970.

Administration of lysergic acid diethylamide to 98 pregnant rats, 67 mice, and 22 hamsters either at the beginning of

gestation or during the period of organogenesis failed to show any abortifacient, teratogenic, or growth-depressing effects in 1003 rat fetuses, 521 mouse fetuses, or 189 hamster fetuses. (Gregg)

Thompson, N., & Casson, Jennifer A.; Experimental onlay bone graft to the jaws. A preliminary study in dogs. *Plastic and Reconstructive Surgery, 46,* 341–359, 1970.

The authors report experimental procedures in dogs in which onlay bone grafts to the jaws showed a consistent tendency following union with the host bone to undergo progressive resorption. The transfer of periosteum with the onlay bone graft served to increase the rate of vascularization and delay the ultimate absorption of the graft but this nevertheless was the result. In autogenous onlay bone graft, placing the graft with its cancellous surface outward, increased the rate of revascularization and the repopulation by living osteocytes but the survival of the graft was distinctly less than when the cancellous surface of the graft was placed inward in contact with the host bone bed from which the outer cortex had been removed. In general, fresh autogenous bone did better and lasted longer than homograft bone. These results are sufficiently comparable to those seen clinically to suggest that this experimental study bears further investigation. (Cosman)

Viale-Gonzalez, Micheline, & Ortiz-Monasterio, F.; Observations on growth of the columella and prolabium in the bilateral cleft lip. *Plastic and Reconstructive Surgery, 46,* 140–144, 1970.

Observations on patients with unoperated bilateral cleft lips suggest that if a patient is born with a very short columella, it will still be very short when he is older. Accordingly it should be possible to roughly predict the future length of the columella when planning the initial operation in a child with a bilateral cleft. Measurements on 20 normal infants, 20 children aged 5–15 years, and 20 adults were made in an effort to quantitate these predictions. The details of these measurements are presented. A regular rhomboidal figure involving the ala bases, nasal tip, and mucocutaneous line could be obtained. The measurements of its angles and lengths differed in the Indian as compared to the Caucasian lip. Application of these guide lines should make possible the appropriate reconstruction of the upper lip and nose primarily at the first operation. Unfortunately, the very socioeconomic factors that have made the concept of a one stage reconstruction desirable also have ruled out the long term follow up that might attest to the validity of this approach. (Cosman)

Weber, J. Jr., Jobe, R. P., & Chase, R. A.; Evaluation of muscle stimulation in the rehabilitation of patients with hypernasal speech. *Plastic and Reconstructive Surgery, 46,* 173–174, 1970.

Reports have suggested that muscle training with electrical stimulation will improve the performance of patients with hypernasal speech by conditioning them to use their posterior and lateral pharyngeal wall musculature in connected speech. A program of such stimulation was carried out in 34 patients and a critical evaluation then made. 18 of the 34 were adjudicated prior to 1 year since it was felt that muscle training had not improved them enough to warrant further postponement of their surgery. Of the remaining 16, 9 failed to return for reevaluation at the end of 1 year. Of the 7 determinable patients only 1 demonstrated a significant reduction in nasality. This was the only patient in the entire group who showed a significant increase in posterior wall movement during speech. The authors therefore conclude that electrical muscle stimulation

conditioning is not a successful clinical method of reducing nasal emission. (Cosman)

Young, J. M.; Internal nares prosthesis. *J. Pros. Dent., 24,* 320–323, 1970.

Removable internal nares inserts are constructed of Acrylic resins to restore nasal airways if breathing is impaired following reconstructive nasal surgery. Technique, method, and case histories are illustrated. (Goldenberg)

ANNOUNCEMENTS

MONTEFIORE HOSPITAL CLEFT PATATE CENTER HOLDS ANNUAL SYMPOSIUM ON APRIL 2, 1971

The Cleft Palate Center at Montefiore Hospital & Medical Center, New York City, will hold its Annual Symposium on Friday, April 2nd, 1971, 10:00 a.m.–4:00 p.m. Those interested in attending the Symposium please write or call: Cleft Palate Center, Montefiore Hospital, 111 E. 219th Street, Bronx, New York 10467. *Tel: 212-920-4781.*

SECOND MEETING OF ASSOCIATION OF GERMAN PLASTIC SURGEONS TO BE HELD IN SEPTEMBER

Second Meeting of the Association of German Plastic Surgeons will be held on September 23–25, 1971 in Ludwigshafen at the Rhine. The subject will be: tumors of the skin, cosmetic surgery of the nose, the repair of the traumatized hand, and early complications in the treatment of burns. Papers may be given in either English or German. For further information contact: Dr. Dr. P. R. Zellner, Ludwigshafen/Rhine, Pfennigsweg 13 (Germany).

CLEFT PALATE BIBLIOGRAPHY AVAILABLE

Prof. Dr. Dr. W. Bethmann, Director of Plastic Surgery, Thallwitz Clinic, 7251 Thallwitz, Schlobklinik, Czek. has published a bibliography of the clinic's papers in the field of plastic surgery. This bibliography is available upon request by writing to Prof. Bethmann.

CLEFT PALATE CLINIC ESTABLISHED IN BALTIMORE

A multi-disciplinary Cleft Palate Clinic has been established at the James Lawrence Kernan Hospital in Baltimore, Maryland to provide consultation and treatment for children and adults with structural and communicative disorders associated with cleft lip/palate and velopharyngeal incompetence. The Team members are: Hans R. Wilhelmsen, D.D.S., M.D., Plastic Surgeon and Team Chairman: Allan Dworkin, D.D.S., Pedodontist; Myron Reichel, D.D.S., Orthodontist, Miss Pat Landis, M.A. Speech Pathologist, Robert Gingell, M.D., Pediatrics and Barry Ominski, M.D., Otolaryngology. Audiological services and pediatric and otologic staff are provided by University of Maryland Hospital.

JACK MATTHEWS IS RECIPIENT OF AMERICAN SPEECH AND HEARING ASSOCIATION HONORS

Jack Matthews, Ph.D., University of Pittsburgh, a member and former President of the American Cleft Palate Association, was voted to be the recipient of the Honors of the American Speech and Hearing Association at their 1970 annual convention. The honor is bestowed for his service to the Association and for his leadership, teaching and promotion of excellence in speech and hearing and the world of communication arts. Our congratulations.

APPLICATIONS FOR PRESENTATIONS AT ADA ANNUAL SESSION ACCEPTED UNTIL APRIL 1, 1971

Applications for presentation of clinical lectures, table clinics, scientific and educational exhibits and motion pictures during the 112th annual session of the American Dental Association which will be held October 10–14, 1971 in Atlantic City, can be obtained on request from the office of the Council on Scientific Session, American Dental Association, 211 East Chicago Avenue, Chicago, Illinois 60611. Please specify area or areas in which participation is desired. Applications must be received by the Council before April 1 to be considered.

INTERNATIONAL ASSOCIATION OF MAXILLOFACIAL SURGEONS MEETS IN ISTANBUL, TURKEY, OCTOBER 1–5, 1971

The first three-yearly Symposium will be held in Istanbul, Turkey, October 1–5, 1971. The theme of this meeting will be "Maxillofacial Trauma", including related topics. It is hoped that the U.S. will be strongly represented at this Symposium, as well as within the Association. Anyone interested in appearing on the program, or desiring further information, please write to: Leslie Bernstein, M.D., D.D.S., Vice-President, University Hospital, Iowa City, Iowa 52240

CALENDAR OF FUTURE MEETINGS

American Cleft Palate Association
Pittsburgh, Pa.
April 22–24, 1971

- International Congress for Plastic and Reconstructive Surgery (5th), Melbourne, Feb. 22–26. 1971 SEC CEN: Mr. J. Snell, % Royal Australasian College of Surgeons, Spring St, Melbourne, Victoria 3000.

- American Society of Maxillofacial Surgeons, Miami Beach, Fla. March 28–April 1, 1971.

- American Pediatric Society, Atlantic City, N.J., April 28–May 1, 1971.

- American Association of Orthodontics, New Orleans, La., May 2–6, 1971.

- International Conference on Oral Surgery (4th), Amsterdam, May 17–21, 1971. INFO: Secretary, Fourth International Conference on Oral Surgery, PO Box 9058, The Hague, The Netherlands.

- American Association of Plastic Surgeons, Williamsburg, Virginia, May 23–27, 1971.

- International Congress of Human Genetics (4th), Paris, Sept. 6–11, 1971. SEC GEN: Dr. J. deGrouchy, Hospital des Enfants Malades, 149 rue de Sevres, Paris 15e.

- American Society of Plastic and Reconstructive Surgeons, Annual Meeting, Montreal, Oct. 3–8, 1971. EXEC DIR: Dallas F. Whaley, 29 E Madison St, Chicago 60602.

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