ABSTRACTS

Bartels, R. J., J. E. O'Malley, W. M. Douglas, and R. G. Wilson, Variations of Masters interlocking Z-cheilorrhaphy. *Plastic and Reconstructive Surgery,* 45, 189–190, 1970.

A technical modification of one of the Z-plasty techniques for the repair of the unilateral cleft lip is diagrammed and discussed briefly. (Cosman)

Blaine, H. L., Differential analysis of cleft palate anomalies. *Journal of Dental Research, 48,* 1042–1047, 1969.

Lateral cephalometric radiograms of children with cleft palate or cleft lip and palate were statistically analyzed. Selected landmarks as defined by Krogman and Sassouni were utilized in addition to a new base line "ethnic horizontal" as developed by Walker. Differential analysis using indexes and angular measurements was done according to age, sex, extent of cleft and operative history. This study indicated that in most cases with clefts regardless of surgery, there is a tendency for vertical and horizontal maxillary deficiency, retroplacement of the maxillary complex, and a general obtuseness of angles relating to the

sella-basion line. No sexual dichotomy could be observed. (Luban)

Bowers, D. G. Jr., Congenital lower lip sinuses with cleft palate. *Plastic and Reconstructive Surgery, 45,* 151–154, 1970.

Lower lip sinuses are relatively rare but when present are associated with cleft of the lip and palate in 70 to 80% of patients. However, less than 1% of all cleft lip and palate patients have such lip sinuses. The author reports on 3 families and 12 patients with such sinuses among whom were 2 in which the sinuses were associated with submucous cleft palates—the first such associated occurrences recorded. Some details of the treatment of these defects are also discussed. (Cosman)

Converse, J. M., J. Ransohoff, E. S. Mathews, B. Smith, and H. Molenaar, Ocular hypertelorism and pseudohypertelorism. *Plastic and Reconstructive Surgery, 45,* 1–13, 1970.

Well conceived and well executed procedures for this difficult series of problems are presented. A one stage combined intra- and extra-cranial approach carried out by both plastic and neuro-surgeon is detailed. Those dealing with these complex craniofacial disorders of which these anomalies are parts will benefit by close study of this paper. (Cosman)

Converse, J. M., V. M. Hogan, and C. C. Dupuis, Combined nose-lip repair in bilateral cleft-lip deformities. *Plastic and Reconstructive Surgery, 45,* 109–118, 1970.

In the treatment of such secondary defects the prolabium of the lip is, in a single stage, employed to lengthen the columella and the resultant defect in the upper lip is repaired immediately by a cross-lip flap. In some cases a bone graft to the nose is performed at the same time. This one stage nose-lip repair has been carried out over a 10 year period on 16 patients ranging from 5 to 18 years of age. General anesthesia was used in most cases with gentle movement of the tube to permit the design of the lip flap. Change of the tube to the nose after the nasal part to permit easier lip flap formation can also be carried out. Division of the Abbé flap is done under local followed immediately by general anesthesia in the younger patients. Presence of hair on the columella derived in this way from the upper lip has not been a problem for these authors. Long term follow up of 2 patients suggests that the improvement obtained is preserved intact and accordingly the authors advocate the early repair of such defects using this combined approach. (Cosman)

Crikelair, G. F., Kastein, Shulamith, and B. Cosman, Pharyngeal flap for post-traumatic palatal paralysis. *Plastic and Reconstructive Surgery, 45,* 182–185, 1970.

A patient with palatal and upper pharyngeal wall paralysis consequent on central nervous system trauma who had striking improvement in rhinolalia following a pharyngeal flap is reported. This condition is added to the growing list of indications for the pharyngeal flap. Noting the lack of dynamic tissue in the transplanted flap and the rapidity of the speech improvement in this and other kinds of cases serves to demonstrate the importance of the obturator function of the pharyngeal flap. (Cosman)

Crikelair, G. F., P. Striker, and B. Cosman, The surgical treatment of submucous cleft palate. *Plastic and Reconstructive Surgery, 45,* 58–65, 1970.

Experiences with the surgical treatment of 20 palates with significant submucous defects are presented. The anatomical variations demonstrated are enumerated. The

"classical" submucous cleft description is shown to be an oversimplification. The presence of a submucous zone is the single constant feature and the length of the zone is the criterion of the empiric definition. The submucous lesion is but one manifestation of the cleft palate defect and does not constitute a separate entity. The history of the discovery and the various treatments of submucous defects are reviewed. Evidence is presented that, contrary to present practice, excision of the submucous zone is not a necessary part of the therapy of every submucous cleft. (Cosman)

Gordon, H., D. Davies, and M. Berman, Camptodactyly, cleft palate, and club foot: A syndrome showing the autosomal-dominant pattern of inheritance. *J. Med. Genet., 6,* 266–274, 1969.

Camptodactyly refers to one of the varieties of constitutionally crooked digits, typically a flexion contracture of the proximal interphalangeal joint almost always of the fifth finger. It may be sporadic or familial. In the latter, there is a simple autosomal dominant pattern of inheritance, with a high degree of penetrance but variable phenotypic expression. In these genetic cases, camptodactyly is often the only lesion, but it may be associated with other connective tissue anomalies, or it may be a major or a minor component of a variety of complex syndromes. The present report describes a family in which camptodactyly is a major component of a syndrome which includes cleft of the secondary palate and club foot. The pedigree shows the inheritance pattern of a single mutant autosomal gene with dominant effect and varying phenotypic expression. The authors have found no record in the literature of a similar syndrome. (Noll)

Gregg, J. B., Treatment of cleft lip-palate patients, the surgeon's role. *South Dakota Journal of Medicine. 22,* 125–131, 1969.

This article, directed primarily to general practitioners of medicine, outlines and discusses briefly the many different surgical procedures which are often necessary for the total treatment of persons having congenital facial defects. The viewpoint of the maxillo-facial surgeon who is trained to handle all of the problems in the surgical care of the cleft patients is advanced. Illustrations of various common surgical procedures and photographs of exemplary patients are presented. A plea is made for a coordinated or team approach to the care of persons with cleft lip-palate problems. (Gregg)

Honjow, I., N. Isshiki, and M. Tanabe, Objective evaluation of velar mobility. A double-exposure roentgen technique. *Plastic and Reconstructive Surgery, 44,* 597–600, 1969.

A small lead disc 5 mm. in diameter and 1 mm. in thickness is affixed to the soft palate where velar mobility appears greatest, using alpha-cyanoacrylate monomer. Atropine is given to reduce salivary secretion which otherwise limits the adhesive effect. A four part plastic plate apparatus immobilizes the head. A double exposure x-ray is taken with one exposure during rest and one during sustained phonation of /s/ or /i/. X-ray factors and tube distances are detailed. A lead point scale incorporated in one of the head immobilization bars appears on the film and makes possible calibration of the measured difference between the positions of the palate as determined by the positions of the metal disc. Ratios of velar mobility can be arrived at. Two normals and 15 cleft palate patients were the subjects of this initial exploration of technique. (Cosman)

Horton, C. E., J. E. Adamson, R. A. Mladick, and R. J. Taddeo, The upper lip sulcus in cleft lip. *Plastic and Reconstructive Surgery, 45,* 31–37, 1970.

Comparatively little attention has been

paid to the deficiencies in the upper lip sulcus in patients with either bilateral or unilateral cleft lips. The authors feel it important to construct a sulcus early in those patients who have adhesion of the lip to the anterior alveolar ridge so as to allow unrestricted growth of the lip. Use of the prolabial vermilion to surface the premaxilla, with the lateral lip vermilion and mucosa used to cover the under surface of the prolabium, is described as a primary procedure for the bilateral cleft lip patient whose closure is to be accomplished in two stages. A similar procedure is used for the occasional unilateral cleft patient whose lip is adherent to the alveolus. In secondary bilateral cleft lip repair a V incision beneath the lip and V-Y advancement of the tissue is carried out to release the lip. The bare alveolar ridge surface is covered by a small full thickness buccal mucosa membrane graft. (Cosman)

Khan, M. H., and R. N. Sharma, Measurements of maxillary area in repair of unilateral clefts. *Plastic and Reconstructive Surgery, 45,* 155–159, 1970.

30 cases of unilateral lip/palate clefts were analyzed by model and tracing techniques which are described. Both bony deficiency in the maxilla and deformity of the maxilla were found. The maxillary deformity involved hypoplasia, medial rotation, and forward drifting with lack of development of face. Severe degrees of this defect were in turn associated with less inter-canine space and more nasal deformity. (Cosman)

Miller, O. J., D. Warburton, and W. R. Breg, Deletions of Group B chromosomes. *Birth Defects Orig. Art. Ser., 5*(5), 100–105, May 1969.

Patients with a B-group short arm deletion may have a deletion of the longer later replicating chromosome (4p-) or the shorter earlier replicating chromosome (5p-, = cri-du-chat). Both types of patients share such features as severe mental retardation, microcephaly and antimongoloid palpebral fissures. Features distinguishing the 4p- syndrome include cleft palate, coloboma, preauricular sinus, seizures, dermal ridge hypoplasia and absence of a cat-like cry. While diagnosis of the type of deletion is sometimes possible on clinical grounds, measurement or autoradiographic identification of the deleted chromosome is often necessary, especially in older patients. (23 references.) (This abstract is from *Birth Defects: Abstracts of Selected Articles.* The National Foundation-March of Dimes, 6(11), Nov. 1969, abstract number 69-913.)

Papangelou, L., Correction of velopharyngeal insufficiency. *Arch. Otolaryng., 91,* 201–203, 1970.

To aid velopharyngeal closure in a patient having congenital hypernasality the result of cleft palate, the author described a surgical technique in which the tonsils are utilized to fill the defect. The tonsils were rotated into a prepared bed in the posterior pharyngeal wall as a flap having its base in the superior pole of each tonsil. The results in a single case are reported to have shown marked speech improvement without air leak immediately after the operation and permanent improvement for 7 months. The author suggests as a possible disadvantage of the procedure the fact that the patient could develop tonsillitis later. (Gregg)

Quigley, L. F. Jr., Comparison of simultaneous airflow-pressure measurements and cephalometric technics for evaluation of normal and cleft palate patients: III palatopharyngeal competency. *Journal of Dental Research, 49,* 93–99, 1970.

A group of cleft palate patients and normal siblings were studied for palatopharyngeal competency with cephalometric, manometric, and airflow technics. There was little correlation between air pressure measurements and cephalometric

data. The nasal anemometer airflow data correlate well with cephalometric measurements. The nasal anemometer provides an excellent clinical tool for the determination of palatopharyngeal competency and it can be used for this purpose instead of cephalometric radiographs. (Luban)

Shapira, Y., An autoradiographic study of ^{3}H Proline uptake in the palate of normal mice and in the palate of mice treated with hydrocortisone. *Journal of Dental Research, 48,* 1039–1041, 1969.

Normal mice demonstrate a continuous synthesis of amino acids into protein in the palatal shelves before and during the period of palate closure. In mice treated with hydrocortisone, there is normal protein synthesis up to the time of normal palate closure when there is an abrupt decrease in protein activity. It is suggested that hydrocortisone acts as a teratogen by causing local alterations of fetal protein metabolism. (Luban)

Smith, N. J. D., and W. P. Heighway, Patient dose in dental cinefluorography. *Oral Surgery, Oral Medicine and Oral Pathology, 27*(3), 349–357, March 1969.

The purpose of the article was to report the results of observations on the dose of radiation received by patients and volunteer subjects during cinefluorographic procedures under taken as part of dental research projects. X-ray and exposure was measured by means of a 35 c.c. air ionization chamber in conjunction with electronic instruments. Factors which effect patients dosage were found to be as follows: Kilovoltage of the x-ray tube need not necessarily increase the patient dose since equivalent results can be obtained by lowering the milliamperage. The greater the milliamperage the greater the patient dose therefore the milliamperage should always be kept as low as practicable in an effort to reduce the patient dose. Increasing the filtration of the rays will reduce the skin dose markedly however too much filtration will reduce the contrast on the image intensifier screen and will necessitate the use of higher milliamperage. Where great contrast was not needed it was often possible to increase the kilovoltage and to use copper filtration in addition to the aluminum filtration. This resulted in a marked reduction in the patient dose however it adversely affected the visualization of the soft tissue outlines. The powter-Bucky grid necessitates a larger milliamperage and thus increases the patient dose. It was found that the loss of quality when not using the grid was small and that it was best to reduce the patient exposure by not using the grid. The faster the cinefilm, the smaller the patient dose, since less brightness is needed on the image intensifier. Two fast a film was found difficult to handle, and increased the grain size detracted from the quality of the film. Although increasing the frame speed permits a more detailed analysis to be made, if the frame speed is increased then the camera shutter is opened for a shorter period of time and this requires an increased brightness on the image intensifier. Thus, increasing the frame speed will mean an increase in the patient dose. It was found that the patient dose is considerably less with a 16 mm camera where a faster lens can be used then if a 35 mm camera were used. The paper stated that the International Commission on Radiological Protection considered the radiation of the public from man made environmental radiation and that they recommend that a whole body dose of 1.5 rems per year should not be exceeded. The statement was also made that "at the very low levels of risk implied, it is likely to be of minor consequence to their health if the dose limits is marginally or even substantially exceeded." The "dose limit" of 1.5 rems a

year to the head and neck only was considered well within the spirit of the I.C.R.P. recommendation. The study made the conclusion that at 25 frames per second, one foot of 16mm film will require 1.6 seconds to expose, and if the filming takes place with a target—screen distance of six feet at 80 Kv. and 5 Ma., a filming time of 85 seconds or fifty feet of film will be sufficiently low and acceptable in subjects to whom the dose limits of 1.5 rems is applied. (Troutman)

Stenström, S. J., and Thilander, L. Birgit, Effects of nasal septal cartilage resections on young guinea pigs. *Plastic and Reconstructive Surgery, 45,* 160–170, 1970.

The effect of varying degrees of nasal septal extirpation on the growth of the midfacial skeleton of guinea pigs is reported here. Contrary to the findings of other authors (Sarnat, et al, in rabbits) even very extensive extirpations were associated with only slight to moderate deformity. On the basis of their careful and well executed studies the authors conclude that the nasal septal cartilege is not a primary growth center for the midfacial skeleton in guinea pigs and seems to serve mostly as a mechanical support for the nasal bones and to increase the respiratory space. The reasons for the discrepancies between these findings and those of experimenters employing other animal species remains to be elucidated. (Cosman)

Stout, F. W., and W. K. Collett, Etiology and incidents of the median maxillary anterior alveolar cleft. *Oral Surgery, Oral Medicine and Oral Pathology, 28*(1), 66–72, July 1969.

In incidents of approximately one case of median maxillary anterior alveolar cleft in each of 100 patients examined was noted in a sample population registered at The University of Maryland Dental Clinic the data from 66 human people palates indicates that an epithelial proliferation in the area of the maxillary frenum's attachment to the developing alveolar ridge may serve as a source of epithelial rest. It is proposed that these rest may act to interfere mechanically with the closure of the premaxillary suture area, thereby creating a median maxillary anterior alveolar cleft. Furthermore, it seems possible that these rest could provide a source of epithelium for the formation of the rare median alveolar cyst. (Troutman)

Summerfeld, R. M., and J. W. Schweiter, Cleft palate associated with Klippel-Feil syndrome. *Oral Surgery, Oral Medicine and Oral Pathology, 27*(6), 737–739, June 1969.

Klippel-Feil Syndrome is a clinical condition characterized by the congenital fusion of two or more cervical vertebrae. They hypothesize that the fusion of the cervical vertebrae cause the mandible to remain compressed against the chest, thereby preventing the tongue from dropping, permitting the palatal shelves to meet and fuse in the middle line. In support of this hypothesis, persons with Klippel-Feil syndrome tend to have high palatal vaults even though they may have no cleft of the palate. (Troutman)

Van de Mark, T. B., et al, Branchial cleft cysts. A review and case report. *Oral Surgery, Oral Medicine and Oral Pathology, 28*(2), 149–156, August 1969.

The branchial cleft cyst is described as "a painless, fluctuant swelling either on the lateral aspects of the neck or in the floor of the mouth." Various theories of origins and etiology are presented. The lesion is described as a slow growing lesion which usually becomes apparent in the third decade as a painless swelling protruding from beneath the anterior border of the sternocleidomastoid muscle at any level

from the hyoid bone to the suprasternal notch. Pain in the lesion is usually due to secondary infection. The enlarging cyst may impinge on neighboring structures, causing hoarseness, coughing, dyspnea or dysphagia. A list of differential diagnoses is presented. Few of these should be confused with the branchial cleft cyst. Surgical excision is presented as the definitive treatment for branchial cleft cyst with an excellent prognosis. A case report is presented. (Troutman)

MEETINGS IN THE UNITED STATES

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

American Psychological Association
Miami Beach, Fla.
Sept. 3–8, 1970

The American Society of Plastic and Reconstructive Surgeons
Los Angeles, Calif.
Oct. 4–9, 1970

American Academy of Ophthalmology and Otolaryngology
Las Vegas, Nev.
Oct. 5–9, 1970

American Society of Human Genetics
Indianapolis, Indiana
Oct. 11–14, 1970

American Association of Maxillofacial Prosthetics
Las Vegas, Nevada
Nov. 3–5, 1970

American Prosthodontic Society
Las Vegas, Nevada
Nov. 5–7, 1970

American Dental Association
Las Vegas, Nevada
Nov. 8–12, 1970

American Speech and Hearing Association
New York City
Nov. 20–23, 1970

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

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

ANNOUNCEMENTS

NEW RESEARCH CENTER AND CLEFT PALATE CLINIC IN PUERTO RICO

A Combined Research Center and Cleft Palate Clinic has been established at the Mayaguez Medical Center in Mayaguez, Puerto Rico. Members of the team are: Angela Ramírez-Irizarry, M.D., Plastic Surgery and Chairman; Luis Nina-Ortega, M.D., Pediatrics; Guillermo Colón-Bonet, D.D.S., Dentist; Pedro E. Valentín, D.D.S., M.S., Orthodontia; Newton Martin Ellis, M.D., Otolaryngology; José E. García, M.D., Pediatric Anesthesia; Raul Maldonado-Sierra, M.D., Physical Medicine and Rehabilitation; Miss Margarita Mendez, M.S., Speech Therapy and Audiology; Miss Carment Pagán, Medical Social Worker; and Mr. William Perez, Photographer. Associate members of the team are: Ramón Cabañas, D.D.S., M.S., Oral Surgery; Donald Steed, D.D.S., Oral Surgery and William G. Sprague, D.D.S., M.S., Oral Pathology.

14TH ANNUAL SEMINAR TO BE HELD BY LANCASTER CLEFT PALATE CLINIC

"The Lancaster Cleft Palate Clinic will conduct its Fourteenth Annual Seminar—HABILITATION-REHABILITATION OF ORAL-FACIAL-COMMUNICATIVE DISORDERS—October 19–23, 1970. Multidisciplinary diagnostic and treatment procedures will be presented to provide more comprehensive information about treatment services.

The program will include demonstrations by the staff plastic surgeon, pediatrician, otolaryngologist, orthodontist, prosthodontist, speech pathologist, audiologist, psychologist and social worker. Emphasis will be placed upon clinical application and research findings effecting the treatment program.

Discussion periods with each discipline and general meetings will be held daily regarding orientation and integration of multidisciplinary services, parent and patient counseling concerning genetic traits; psychological behavior of patient within the family environment; role of social case worker in clinical setting; Pennsylvania's Department of Health, Cleft Palate Section and Pennsylvania's Bureau of Vocational Rehabilitation will comprise special sessions.

TUITION: $300.00

Program limited to 30 trainees.

For further information, write to Robert T. Millard, Program Director,

Lancaster Cleft Palate Clinic, 24 N. Lime Street, Lancaster, Pennsylvania 17602."

CLARION STATE COLLEGE OFFERS BIBLIOGRAPHY ON CLEFT PALATE

A Bibliography on Cleft Palate for the ten-year period (1960–69) has been compiled as a class project in the graduate course in cleft palate in the Division of Speech Pathology and Audiology, Clarion State College, Clarion, Pennsylvania. This bibliography contains listings from journals and books in the fields of dentistry, plastic surgery, speech pathology and other disciplines concerned with cleft palate. It is limited to references in the English language. The bibliography is divided into twenty major divisions and the references in each division are arranged alphabetically. The major purpose of this bibliography was to organize published material and to facilitate the task of both the student and clinician in locating this information. This is a well-organized bibliography and information relative to it can be obtained by writing to Mary Pannbachet, Associate Professor, Speech and Hearing Clinic, Clarion State College, Clarion, Pennsylvania 16214.

GRADUATE-RESIDENCY TRAINING PROGRAM IN PROSTHODONTICS OFFERED AT MAYO CLINIC

The Mayo Graduate School of Medicine and the Department of Dentistry and Oral Surgery of the Mayo Clinic offer a graduate-residency training program in prosthodontics leading to a Master of Science Degree in Dentistry or Certificate of Achievement. Appointments are made in December for the 36-month course of study in conventional and maxillofacial prosthodontics which begins with the following summer or fall quarter. Didactic courses, clinical and laboratory experience, and practice teaching satisfy requirements for certification by the American Board of Prosthodontics. A stipend is provided with annual increments.

Address inquiries to Director, Mayo Graduate School of Medicine, 200 First Street Southwest, Rochester, Minnesota, 55901.