

BOOK REVIEWS

HOTZ, RUDOLF (Ed.), *Early Treatment of Cleft Lip and Palate*. Proceedings of an International Symposium held in Zurich, April 9 to 11, 1964. Berne: Hans Huber, Publishers, 1964. Pp. 224. Fr./DM28.50.

In the summer of 1963, Professor Hotz cordially invited this reviewer to participate in an international symposium devoted to early methods of treatment, especially presurgical orthopedic measures and primary bone grafting. The invitation was declined with thanks.

After a review of the literature and visits to several European centers in 1961, this writer concluded that there was as yet insufficient evidence to support the enthusiasms generated for the new techniques. Further, it seemed injudicious to expend personal or university funds for travel abroad when it would contribute more to our deficit in international balance-of-payments than to the enrichment of one's intellectual bank account. Apparently, a significant number of Americans did not share this view when they accepted the invitation. In any event, the reader has been forewarned of the reviewer's bias and he can decide for himself whether the conference has been judged on the merits of its proceedings.

Ever since 1959, when this writer had thrust upon him the chore of organizing an international conference, the study of group dynamics and communication in such meetings has become a matter of special interest. It was inevitable that with the thousands of annual conferences sponsored by governmental and private organizations that a closer evaluation of the psychological, semantic, and cultural factors involved should follow. For example, a conference was once organized on how to hold international conferences (1) and a handbook on the planning of international medical and scientific meetings has been published (6). It is, therefore, of interest to examine the proceedings of the Zurich conference for some of the ingredients that make for successful international meetings.

Conferences, particularly those that bring together experts from distant places, have a value that cannot be appraised from the published proceedings alone. The interpersonal exchanges, the eyeball-to-eyeball appraisal of the intellectual gifts and thoughts of the known and unknown do not get into print. It may be that in providing for such contacts, the meeting in Zurich served an invaluable purpose. But for those who were not present, the only measure of what was accomplished is in the residue of the symposium—its proceedings. It is by these proceedings that the absentee must judge the quality of the participants, their preparation to meet the stated goals of the conference, and indeed, the design of the conference itself. Incidentally, for the reader who may be confused as to

whether to refer to this meeting as a conference or a symposium, a guide line has been published elsewhere (6).

The Zurich conference seemed poorly planned in the allowing for too many papers (29 papers ranging in length from 1½ to 14 pages, plus 14 pages of discussion). Some were repetitious, others poorly prepared, or actually irrelevant to the main purposes of the meeting. The president of the conference seemed unaware of the scope of collaborative activity that had developed between the specialties in the United States, when he said, 'This is . . . one of the rather rare occasions that surgeons and dentists have come together on an equal footing. . . .' In addition, he addressed himself, ' . . . to those whose mother tongue is English or American.'

General papers on embryology, growth, and population genetics by distinguished investigators may be inherently worthwhile, but in a meeting dedicated to a fairly narrow clinical purpose, one might ask—where is the relevance? What are the questions that emerge and relate to the central theme? And if science is to be accepted for its pure self, without concern for its application to the immediate clinical problem, how could one omit teratology and experimental embryology, which are even closer to the forefront of the scientific attack on congenital malformations? In this sense, failure to include the opening address by the Rektor of the University of Zurich, the distinguished biologist Professor Hadorn (2), was a disappointment.

The lead paper presented by Tondury dealt with the embryogenesis of cleft lip and palate as revealed in a very early human embryo. Much of this material had already been published elsewhere and in greater detail. Tondury's discussion of the several mechanisms by which cleft palate may develop was incomplete, since he did not include much that has emerged from experimental teratology or from the study of spontaneously occurring clefts in various inbred strains of mice (3).

Regrettably, Tondury diminished his interesting paper with a classification of clefts that can only lead to confusion. What, for example, is the difference between a 'simple harelip' and 'complete harelip'? It is not, as he indicated, by the cleft in the maxillary arch. No one has demonstrated a cleft lip that extends toward the floor of the nose to any significant degree that did not have an equivalent stigma in the alveolar arch.

What confounds the reader is the varying terminology and several classification systems employed throughout. The conference might have served a useful purpose by agreeing on a nomenclature of clefts at the outset. Perhaps that developed by the American Cleft Palate Association would have been a useful frame of reference (4).

Van Limborgh reported on the skulls of four fetuses, five newborns, and twelve adults with a variety of cleft conditions. Regrettably, neither the fetal nor the newborn skulls were illustrated. Detailed craniometric measures of his material were not presented. Professor Limborgh would

be well advised to obtain roentgencephalometric projections of the skulls in his collection for comparison with the larger mass of data on the living.

Graber's paper was the longest, the best illustrated, and contained the most impressive tables. However, not everything that glitters is science. He stated that serial cephalometric films, in the lateral and frontal projections, were obtained, without benefit of sedation, on 50 normal children and 50 cleft palate children between birth and six years of age. This reviewer openly challenges anyone to produce oriented serial frontal films on infants, or for that matter similarly positioned lateral films that were obtained without sedation.

It was not indicated how many of these cases were available in each age range or whether the initial records preceded surgery in each case. Racial heterogeneity in the noncleft sample was admitted but not described in terms of morphological variance.

The discussion of roentgencephalometric data in a specific case out of context with what is seen in the cast of the maxilla is sterile or at worst, misleading. This is due to the considerable variation of structure and geometric relation of parts even within a single category of clefts. The reliability of measuring hard palate length from lateral cephalometric films is questionable. Discussion of palatal height in clefts without considering the variable geometric relations consequent to surgery on the lip and palate can only lead to meaningless generalizations full of unnecessary qualifying statements.

Figure 5 in the report is labelled as a Class IV cleft (bilateral cleft lip and palate), Pierre Robin Syndrome. Apparently Dr. Graber has discovered a new variant of the syndrome!

In his summary, he continued to treat all clefts as a single category. The omission of pertinent references to other growth studies, including the method of measuring cats which Peyton (5) first described, and the tabulations on the growth of the soft palate and integumental profile are surprising. His last sentence, referring to growth in the first two years of life, concludes, '...this would also be a good time for early treatment, when indicated.' But, what are the indications?

Fogh-Andersen's paper on recent statistics pertaining to frequency, heredity, and mortality of facial clefts was a well-done summary of his own and other related investigations. He also reported a low operative mortality rate of 0.2%, which is similar to that experienced in other well-run centers. I found this statement to be of significance to this conference, since none of the bone-grafters were candid about their mortality and morbidity experiences in espousing procedures on infants which are multiple, more prolonged, and far more hazardous. The concern over mortality and morbidity was also raised by the English surgeon, R. Champion, on page 234 of the discussion.

The paper by Rosenthal, an elder statesman of plastic surgery, was a disappointment since he failed to address himself to the central theme of

the conference. It would have been interesting to know what the developer of the pharyngeal flap procedure thought of its utilization as a primary procedure in infants. Rosenthal's statement that it is unimportant whether cleft lip repair precedes or follows Schweckendiek's staphylorrhaphy operation is astonishing, since it renders irrelevant the architectural changes induced by lip repair. His contention that the Schweckendiek method competes with early orthodontic treatment is inexplicable since the two procedures are unrelated and have entirely different objectives and actions. The need to contract the arch by mechanical means in selected cases of extremely wide clefts, as illustrated in his Figure 5, deserves further exploration by others.

The patron saint of the conference, C. Kerr McNeil, presented nothing that was essentially new or that had not been published before. For a more detailed critique of the McNeil philosophy, the interested reader is referred elsewhere (7).

The Liverpool branch of the McNeil school reported less than universally satisfactory results with orthopedic procedures. The reader is urged to compare those figures with recent data from the University of Illinois (8, 9), which indicate that the results obtained without orthopedic procedures are superior to those obtained in Liverpool with pre-surgical orthopedics.

Professor Hotz's brief paper is noteworthy in that he attempted to delineate the indications for pre-operative orthopedic treatment based on the type of deformity encountered. He considered orthopedic therapy essential to obtain arch symmetry in wide or rotated unilateral cleft segments. Unfortunately, his *a priori* reasoning, however attractive, is not supported by the findings on a sample of clefts which were not subjected to orthopedic therapy (8). Finally, he was candid to admit that these claims were still in the realm of clinical impressions and could not be supported by documentation on a sufficient number of cases.

The next three papers, by Swiss contributors, contained descriptions of orthopedic and surgical techniques which are variants of those in vogue in England and elsewhere on the continent. It will interest surgeons in this country that the introduction of orthopedic procedures had led to the postponement of surgery on the lip until the age of 8 to 12 months. Also, Grob of Zurich and Bettex and Graf-Pinthus of Bern reported deleterious effects on the palatal mucosa from the over-long application of the palatal plate. These reservations did not dim their enthusiasm for orthopedic procedures. The published photographs of lip and nose reconstruction, which served to advertise their claims, did not appear superior to those achieved without the use of pre-surgical orthopedics.

The paper by Fogh-Andersen and Dahl summarized the procedures employed in Denmark and the results obtained to date. This is a refreshingly different paper in its critical approach to essential questions. This is evident in their comparison of two separate approaches to the problem of feeding infants with clefts.

The Danish workers did not employ pre-operative orthopedics or primary bone-grafting. Their results produced no post-operative deformities which could not be corrected rather easily by the orthodontist. In selected cases, secondary bone-grafting has been used to stabilize the results of orthodontic treatment. The prevalence of malocclusion recorded by Dahl was significantly higher than reported from the University of Illinois (8, 9).

Dreyer of South Africa advocated the utilization of presurgical orthopedics and invoked all of the unproven claims, false premises, incomplete information, and wishful thinking that characterize most clinical papers of this sort. For example, he suggested that the incidence of upper respiratory infections was reduced in patients who have this form of appliance therapy but offered no documentation to support his claim. Referring to the anatomy of clefts, he stated that the posterior region of the maxilla is of normal or near normal width. The evidence for this was not cited. On the other hand, Subtelny (10) has clearly established that the posterior region of the maxilla in clefts is wider than the normal. Since one of the frequently cited objectives of early orthopedics is to obviate the expense of orthodontic therapy in later years, it is noteworthy that Dreyer wrote, '... To achieve optimum results new appliances are made every 2-4 weeks.' (p. 118)

Singer opposed primary bone-grafting in unilateral cases on the grounds that the wide gap in the alveolar ridge closes in response to lip repair so that an osteoplasty becomes useless. Further, operating on an infant of 3 or 4 months offends the principles of pediatric surgery, which are to desist from elective procedures during the first year of life. With respect to bilateral cleft lips, Singer seems more amenable to the utilization of primary bone-grafting following surgical repositioning of the premaxilla.

One of the most interesting papers was read by Derichsweiler, Singer's orthodontic collaborator. He compared the occlusion of 30 children, with complete bilateral clefts, for which osteoplasty had been performed following orthopedic expansion to facilitate surgical repositioning of the premaxilla, with 40 children with similar clefts upon which the same procedures are carried out except for the osteoplasty. Using the same methods, with and without osteoplasty, he saw no difference in the prevalence of cross-bite between the two groups. Derichsweiler further concluded that the McNeil method is superfluous in unilateral cases.

Stuteville's paper was distinguished by its brevity, if not for its content. He was followed by his orthodontic colleague whose perspectives were as out of focus as his photographs. It is remarkable that the senior representative of a large research institute would travel so far and offer empiricisms where science was so urgently required.

Honig's operative treatment of bilateral cleft lip and palate was distinguished by his utilization of the filtrum to form the columella and compensating for this transfer by reconstructing the upper lip with an

Estlander-Abbe pedicle graft. What will he tell his male patient when he sprouts a mustache on his columella?

Duyzings ascribed almost magical qualities to the expansion plate which he inserts for the unoperated bilateral cleft lip and palate. Apart from its obvious purpose of expanding the palatal segments, the prosthesis is supposed to stimulate the growth potential in the reduced palatal parts, protect the eustachian tube and middle ear and thereby preventing otitis, and facilitate surgery.

Subtelny's thoughtful analysis on the current state of the art and science of orthodontic therapy and research in relation to the specific purposes of the conference was outstanding. In his critique of presurgical orthopedic movement he cautioned against expansion of the cleft palate in the region of the tuberosities. (In separate visits to European centers in May and September of 1961, this reviewer and Subtelny cautioned several clinicians against expansion in the region of the tuberosities as a result of pre-surgical orthopedics and primary bone-grafting. It is of interest that Graf-Pinthus and others now make the point of avoiding such expansion in their manipulations.)

In sharp contrast to the previous paper, Cronin's paper was not at all concerned with the *WHY* of things but rather with the *HOW*. Those interested in a detailed recipe on how to combine pre-surgical orthopedics and primary bone-grafting will be delighted with this paper.

It is amusing that Cronin credits Slaughter and Pruzansky for the procedure of primary repair of the soft palate, whereas central Europeans call it Schweckendieck's operation. Millard labels it an extension of principles laid down by Gillies and Fry, and someone else told us an Italian invented the operation. Which only proves that most of us read too little and in too few languages. Fortunately, the phenomenon of simultaneous discovery is not restricted by national boundaries.

Out of their concern to prevent collapse of the maxillary arch, Matthews and Grossman utilized bone-grafting at the primary closure of the lip and nostril in unilateral and bilateral clefts. The major portion of their paper was devoted to the problem of secondary treatment of the collapsed arch by means of fixed expansion appliances and secondary bone-grafting along the full length of the cleft. This reviewer suspects that their insistence on highly rigid expansion appliances is related to the scars of the antecedent surgery which impeded movement by the more delicately fixed edgewise appliances that are in vogue in the United States. Regrettably, pre- and post-treatment casts, in several views, were not included in the published paper to allow appraisal of the complexity of the problems described in the text.

As a result of the marked expansions in the nasal chambers, they reported dramatic improvement in the airway. Cases undergoing such treatment present excellent opportunities for investigation of airflow and alterations in voice quality.

Ohlsson closes the nasal floor and then proceeds with orthopedic treatment with plates. In comparing the several techniques described in this publication, it is clear that even among the ardent advocates of orthopedics and bone-grafting there is considerable diversity in the kinds of procedures and in their sequence so as to confound comparison of results.

One of the arguments advanced for all this folderol is that early treatment precludes the need for prolonged and expensive orthodontic treatment in later years. This reviewer would be delighted to obtain an independent cost-accounting of the various procedures advocated in this conference. If anyone imagines that pre-surgical orthopedics and primary bone-grafting are designed to reduce treatment, the following quotation from Ohlsson's paper should serve as an antidote:

After three surgical procedures, i.e. closure of the nasal floor, bone-grafting and posterior-palate operations, and jaw-orthopaedic treatment for more than a year, we hoped that children with cleft lip and palate would have a deciduous dentition with not too severe anomalies. At 3 years of age, many of our cases, however, have a frontal cross-bite, and in addition a lateral cross-bite in the region of the deciduous canine and the first molar on the cleft side. We consider that the collapse is due to the retaining treatment having been terminated too early. (189-190)

Anna Kling of Göteborg reported on the frequency of lateral and anterior cross-bite in the deciduous dentition of 26 unilateral and 14 bilateral complete cleft lip and palate cases in which orthopedic correction and bone-grafting were employed in infancy. Dr. Kling admits that, from the point of view of the occlusion, the results do not differ very much from those achieved earlier with 'less advanced methods of treatment.' Significantly, it should be added that her reported results are considerably poorer than those reported for unilateral clefts (8) and bilateral clefts (9) in patients where neither orthopedics nor bone-grafting were employed in the repair of the lip and palate.

Schmid's paper on bone-grafting was particularly informative insofar as it revealed the historical background for the development of this procedure. The first impetus came out of the wartime experience which required autoplasmic grafts for extensive reconstruction of destroyed jaws. At the end of the war, the surgeons were faced with the grossly deformed jaws of poorly treated clefts much as we in America witnessed the results of the type of procedure advocated by Brophy. This was followed by the realization that some congenital deformities present hypoplastic tissues which required augmentation by bone implantation. The remainder of the paper was poorly organized and the impression was gained that philosophy of treatment was guided by the success or the failure of the last three cases rather than by a carefully reasoned, systematic approach.

Maria Ott-Dobor, Dr. Schmid's orthodontic associate, presented three cases in which secondary bone-grafting was employed following ortho-

dontic expansion in the mixed dentition. This group has abandoned the McNeil method of pre-surgical orthopedics. They do not believe in surgical repositioning of the premaxilla and, indeed, bone-graft the premaxilla in its protruded position.

Clodius's paper reflects Blair O. Rogers's devotion to historical reporting. Those who wish to trace the history of pre-surgical orthopedics will be enlightened by the references in this paper as well as those provided by Webster in another publication (11).

Backdahl and Nordin have collaborated successfully for sometime in the utilization of pre-surgical orthopedics and primary bone-grafting. The series of palatal occlusal films demonstrating eruption of the cuspid into the bone-graft is impressive. Otherwise, their documentation of the treated cases by casts or by x-ray films has been limited.

In the discussion that followed, the last word went to Dr. Rinderer, who chastised the conference for ignoring dental health since so many of the slides showed untreated rampant caries. Perhaps in the concern for symmetrical arch form, someone forgot that the arches are designed to support teeth.

It is apparent that what was sorely needed at this conference was the kind of leadership that could produce a meaningful summary statement, *eine Zusammenfassung*, a consensus of what to agree on or disagree on, or what was known for certain or what had to be discovered. Instead, the reader senses that the proceedings recorded a tower of Babel, each provincial group talking to itself, with little interaction between opposing schools.

It was once said that he who sees things from their beginnings will have the most advantageous view of them. This above all was lacking at this conference. There was no general comprehension of the variety of clefts; how they differ in form, in pattern of growth, and in the varying response to surgical procedures. This is all the more regrettable because much of this information is already in the literature. The difficulty is in the insularity of each group, of each man's blind obeisance to his master's teaching, and most of all, the ego involvement in one's own hard learned technic.

At the outset of this review, the writer acknowledged his negative bias toward the purpose of the conference. Since the reviewer was the first to publish a detailed criticism of pre-surgical orthopedics and primary bone-grafting, some final philosophic remarks seem germane to the general subject and to this review, in particular.

Fame and fortune accrue to those who invent operations, the activists, not to those who oppose them. No wonder, then, that the greater number take pen in hand to advertise their innovations or gifts to benefit mankind. Those who disparage these benefactors are ridiculed as reactionary know-nothings, a surly lot, unfit to cohabitate in the company of gentlemen, and impediments to the course of human progress.

The pragmatists, who know better, regard dissent as a waste of scholarship, a futile exercise against enthusiasms which are but the fashion of the moment. In short, they counsel: if you wait long enough, the need for dissent will diminish. But, will the scars inflicted upon the patient also fade in time?

The dissent, of which this review becomes an extension, must be more than an opposing view. To be of value, it must perforce appeal to logic, to the rules of scientific evidence. It should not serve as a phalanx to shield the vested interest of one clinical cult opposing the other.

Achievement in clinical investigation, as in all research, depends on adherence to scientific methodology for the revelation of truth.

There were few such revelations in these proceedings. In the main, we found a clutter of clichés, superficial appraisals, wrong information, and supine acceptance of preconceived notions and dogmas.

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References

1. CAPES, MARY (Ed.), *Communication or Conflict*. Conferences: Their nature, dynamics and planning. New York: Association Press, 1960.
2. HADORN, E., *Developmental Genetics and Lethal Factors*. New York: John Wiley and Sons, 1961.
3. GRUNEBERG, H., *The Pathology of Development*. A study of inherited skeletal disorders in animals. New York: John Wiley and Sons, 1963.
4. HARKINS, C. S., BERLIN, A., HARDING, R. L., LONGACRE, J. J., and SNODGRASSE, R. M., A classification of cleft lip and cleft palate. *Plastic reconstr. Surg.*, 29, 31-39, 1962.
5. PEYTON, W. T., Dimensions and growth of the palate in the normal infant and in the infant with gross maldevelopment of the upper lip and palate. *Arch. Surg.*, 22, 704-737, 1931.
6. *The Planning of International Meetings*. A handbook issued by the Council for International Organizations of Medical Sciences established under the joint auspices of UNESCO and WHO. Oxford: Blackwell Scientific Publications; also, Springfield: Charles C Thomas, 1957.
7. PRUZANSKY, S., Presurgical orthopedics and bone-grafting for infants with cleft lip and palate: A dissent. *Cleft Palate J.*, 1, 164-187, 1964.
8. PRUZANSKY, S., and ABUSS, H., Arch form and the deciduous occlusion in complete unilateral clefts. *Cleft Palate J.*, 1, 411-418, 1964.
9. PRUZANSKY, S., and HANDELMAN, C., Arch form and the deciduous occlusion in complete bilateral cleft lip and palate. (In press)
10. SUBTELNY, J. D., Width of the nasopharynx and related anatomic structures in normal and unoperated cleft palate children. *Amer. J. Orthod.*, 41, 889-909, 1955.
11. WEBSTER, R. C., Cleft palate. Part II, treatment. *Oral Surg., oral Med., oral Path.*, 1, 943-980, 2, 99-153, 2, 485-542, 1948-1949.

ABSTRACTS

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Cosman, B., and Crikelair, G. F., The shape of the unilateral cleft lip defect: A speculative report. *Plastic reconstr. Surg.*, 35, 484-493, 1965.

Facial casts of unilateral cleft lip patients were made and the lengths of lip segments and alae measured. The studies suggest that the perimeters of the cleft and noncleft alae are not very dissimilar in length and that the difference is not related to the width of the cleft. The sum of the length of the vermilion segments present on the cleft side and on the cleft

edge of the normal side equal or slightly exceed the vermilion length of the normal lip half. Scale diagrams together with these measurements were used to argue the presence of an absolute deficiency of lip substance of roughly trapezoidal shape with its longest side superiorly located beneath the nostril floor. Consideration of this hypothetical deficiency led to the suggestion that a 'submucous cleft' of the primary palate may be, as yet, an unrecognized defect to be sought for in cases of apparently minimal clefts of the lip. (Author's abstract)

Brauer, R. O., Push back repair of the cleft palate with nasal mucosal flaps to prevent late contracture; follow-up results of the Cronin procedure. *Plastic reconstr. Surg.*, 36, 529-537, 1965.

The author notes with regret the general failure of acceptance of push-back procedures for cleft palate repair, and specifically, the lack of wide practice of the Cronin technique. This method for the procedure involving the freeing of nasal mucosal flaps simultaneously with palatal push-back so as to cover the raw area otherwise produced is again presented. An evaluation of both early and late amounts of push-back achieved was permitted by placing a wire suture in the mucoperiosteal flaps at the point of their initial attachment to the posterior bony margin of the palate and a second suture in the bony margin itself. In 75 cases out of 85 procedures performed, lateral x-ray films at the first post-operative week revealed an average distance between wire sutures of 12 mm. X-ray films taken four to eight weeks later revealed an average contracture of 2 mm for a net average gain of 10 mm. The greatest contracture (4 mm) occurred in 12 cases of wide posterior and horseshoe type clefts. It is to be hoped that these studies will be repeated at periods of time greater than four to eight weeks and that documentation will be offered for the conclusion that a proper push-back operation reduces the need for prolonged speech therapy or secondary operative procedures. (Cosman)

Carr, E. C., and Mink, J. R., Ectopic eruption of the first permanent maxillary molar in cleft lip and cleft palate children. *J. dent. Child.*, 32, 179-188, 1965.

The diagnosis of ectopic eruption was made if the mesial of the erupting permanent tooth caused premature resorption of

the second primary molar. This condition was observed only in the case of unilateral and bilateral complete cleft palate. Ectopic eruption occurred in one out of four of the cleft palate cases as contrasted to one out of 30 to 50 in normal children. The ectopic eruptions occurred as often unilaterally as bilaterally, and there was no relationship to the location of the cleft. It was recommended that this problem be detected and treated as early as possible. (Luban)

McWilliams, Betty J., and Musgrave, R., Differential diagnosis in management of hyper-nasal voices in children. *Trans. Amer. Acad. Ophthalm. Otolaryng.*, 69, 322-331, 1965.

The term 'nasality' may be applied erroneously to a variety of disorders, including total nasal obstruction and the open oral-nasal passage characteristic of cleft palate. There are many possible causes of hypernasal speech and recognition of its presence is only the first step in diagnosis. Some form of roentgenographic study is imperative in the assessment of structural and functional adequacy of speech. Ideally, the studies are done by cinerentgenography or telorentgenography (used by the authors). Hypernasality is only infrequently functional in nature. It may result from inadequate structure or some form of disease entity. Any disorder which interferes with the function of the soft palate can produce hypernasal speech. Tumors and excessive scarring from various causes may create hypernasality, where it did not previously exist. Submucous clefts of the palate have long been recognized, yet are frequently overlooked by the physician. The first indication of a serious speech problem often follows an adenoidectomy. Hypernasality will result when there is a disproportion between the size of the nasopharynx and the soft palate, so that the patient does not have a competent velopharyngeal closure. Neuromuscular defi-

cits resulting from various causes will produce a similar speech defect. Reasonably successful treatment of hypernasal voices depends first upon accurate diagnosis utilizing many professional skills and services. (Harding)

Ridley, Doris R., Orthodontic diagnosis and treatment planning for patients with clefts of the lip and palate. *Brit. dent. J.*, 120, 23-35, 1966.

The subject matter is not inconsiderable and the author only manages to deal adequately with it in part. Such comments as are made are on general lines. There are five factors under discussion in the paper: a) the full case history of the patient, including family history, type and extent of the clefts, presence of any other congenital abnormalities, details of the surgical correction of the clefts, and any other medical history; b) the assessment of the skeletal pattern, or apical base relationship between maxilla and mandible; c) the assessment of the morphology and action of the soft tissues associated with the oral cavity, that is, lips, tongue, soft palate, and also masticatory muscles; d) the detailed assessment of the dental condition and dental occlusion; and e) the consideration of special dento-alveolar abnormalities due to the clefts and associated surgical treatment. The types of clefts, comparisons of occlusions, skeletal classification, Frankfurt mandibular plane, gonial angle, and facial proportions are discussed in some detail and are followed by treatment planning which is subdivided into eight headings. Correction of buccal and labial segments, relief of crowding, if present, correction of individual abnormalities (rotations), prosthetic appliances to replace absent teeth, and possibly permanent retention apparatus are included in this discussion. The paper is illustrated by means of case reports and a host of statistical data. (MacLennan)

Manchester, W. M., The repair of bilateral cleft lip and palate. *Brit. J. Surg.*, 52, 878-882, 1965.

Incorporation of the prolabium between the lateral parts of the bilateral cleft lip has the disadvantage of inadequate bulk in the prolabial vermillion. This is avoided by making an incision across the back of the prolabial mucosa almost at the level of the labial sulcus. The prolabial mucosa is then dissected downwards as far as the muco-cutaneous junction, and rolled forward, while the secondary defect on the posterior surface is closed by two mucosal flaps developed from the margins of the lateral elements and sutured in place when the clefts are closed by simple paring and approximation. At the same time, the alveolar clefts and part of the anterior palatal cleft are closed by means of two large vomerine flaps which are turned down and tucked under the palatal mucosa. This operation is carried out at five months. The remaining palatal cleft, largely soft palate, is repaired at nine months. Lips of good appearance are obtained and anterior palatal fistulae are avoided. Bone grafting may be used as a secondary procedure but is still *sub judice*. (Gibson)

Grossman, R. C., Hattis, B. F., and Ringel, R. L., Oral tactile experience. *Arch. oral. Biol.*, 10, 691-705, 1965.

Relative tactile sensitivities were determined with Semmes-Weinstein aesthesiometers at several oral sites and on the hand. The upper lip was demonstrated to be more sensitive to tactile stimulation than all other sites tested; and the tongue and lower lip were more sensitive than the incisive papilla. The finger and palm were less sensitive to tactile stimuli than all other oral sites studied. Tactile threshold determinations were performed at three intraoral sites with an electric low-range force transducer. The mean thresh-

old was 7.6 mg for the vermillion border, 25.6 mg for mucocutaneous junction, and 77.4 mg for the incisive papilla. (Noll: Author's abstract)

Woolf, C. M., Woolf, R. M., and Broadbent, R. T., Lateral incisor anomalies: microforms of cleft lip and palate?, *Plastic reconstr. Surg.*, 35, 543-547, 1965.

The occurrence of a missing lateral incisor or a minor anomaly in the noncleft relatives of cleft lip patients has led to the speculation that an incisor anomaly is a microform of cleft lip. The data are from 641 noncleft families. The incidence of minor anomalies was 2.65% in the former and 2.83% in the control group. No increased incidence of cleft relatives was noted for those in the control group who did show such anomalies. Accordingly, there does not appear to be any ground for the belief that such anomalies are microforms of clefts. (Cosman)

Muir, I. F. K., Repair of the cleft alveolus. *Brit. J. plastic Surg.* 19, 30-36, 1966.

This article points out that the soft tissues used in the repair of that part of the cleft lying between the alveolar ends are most commonly responsible for the collapse of the dental arch, which so often follows many of the standard flap repairs of the cleft palate baby, not from the tension of the repaired lip or the anterior palate as is so widely believed. The author surmises that if the raw area in the region of the alveolar gap, despite attempted flap repair, is prone to scarring and subsequent anterior indrawing of the lesser element of the alveolar ridge, pivoted as it is on posteriorly based fulcra in the region of the pterygoid plates, the method of correction advocated is to utilize a flap of mucosa from the free edge of the lip as an outer layer closure for the alveolar cleft, the usual nasal closure hav-

ing been completed. In cases where the alveolar gap is gross (over 1 cm) primary bone grafting is advocated, thus repair of the lip and alveolus is carried out as above and the bone graft inserted at the same time. For this purpose, rib is used for the graft. In the present series, only those cases in which there was good arch alignment without orthodontic correction have been treated. Follow-up has naturally been limited but it is suggested that the surgical techniques have much to commend it. (MacLennan)

Dibbell, D. G., Laub, D. R., Jobe, R. P., and Chase, R. A., A modification of the combined push-back and pharyngeal flap operation. *Plastic reconstr. Surg.*, 36, 165-172, 1965.

The authors report the use of either Dorrance-type push-back flaps or Wardill-type flaps combined with a long superiorly based pharyngeal flap attached to the nasal-side raw area of the push-back. This modification offers the theoretic advantages of the pharyngeal flap per se with the tethering effect of such a flap on the palate push-back and the elimination of retraction effect on the push-back achieved by covering its raw nasal surface. While the palate is tethered by the flap, it is not, in this method, ridgedly attached but has its muscular body and posterior edge free to act. Performed in 13 cases, speech improvement has been found in all but results are still preliminary in nature. (Cosman)

Kay, Bettina S., Anomalies of speech in cases of cleft lip and palate. *Brit. dent. J.*, 120, 20-23, 1966.

This article is of particular interest to the speech therapist. Expressive orofacial behavior is discussed, speech constituting but one response of cerebral cortical stimulation. There follows a dissertation on the basic requirements for speech, a critical examination of speech in respect to voice,

resonance, articulation, and fluency. The ways in which speech can break down in the cleft palate patient are discussed. The fact that cleft palate patients appreciate the various attributes of speech in others but do not discriminate between themselves and the speech of others is brought out. The breakdown of individual sounds is analyzed. Indeed, there is much of interest in this article and the reader realizes how much has still to be learned in this and other fields relating to the care of clefts of the lip and palate. (MacLennan)

Fukuhara, T., New method and approach to the genetics of cleft lip and cleft palate. *J. dent. Res.*, 44, 259-268, 1965.

A frontal laminographic x-ray technique was used to study nonvisible irregularities in nasopalatine bone structures of families with cleft lip and palate children. Many of these individuals demonstrated irregularities of the nasal shelves. Some also showed eccentric contours in the shape of the nostrils and philtrum. The findings imply that cleft lip, with or without cleft palate, is heritable dominantly rather than recessively. (Luban)

Nobuhiko, I., and Ringel, R., Air flow during the production of selected consonants. *J. speech hearing Res.*, 7, 233-244, 1964.

The purpose of this study was to gain further understanding of flow rate patterns associated with certain consonants in both CV and VC syllables. Flow rate was recorded while each of eight subjects read a 40-item list composed of 20 CV and 20 VC syllables. While wearing a pneumotacograph mask, no attempts to regulate intensity or pitch of phonation were made. The mean flow rate values for voiceless consonants are greater than those associated with their voiced cognates. Different patterns exist for stops, fricative, and vowel-like sounds with a

respective decrease in that order. It was also found that the flow rate for stops is greater than those for either fricatives or vowel-like sounds. These and other results reported suggest clinical applications for the diagnostic procedures in cleft palate speakers. For this reason it is felt that the assessment of this function in cleft palate speakers is of particular importance. (Powers)

Shelton, R. L., Brooks, Alta R., and Youngstrom, K. A., Articulation and patterns of palatopharyngeal closure. *J. speech hearing Dis.*, 29, 390-408, 1964.

The first purpose of the study was to identify, describe, and categorize the patterns of palatopharyngeal closure used by the subjects in utterances that were filmed. The second purpose was to relate percentage of correct articulation response to a cinefluorographic measure of palatopharyngeal closure. The third purpose was to record the frequency of occurrence of Passavant's ridge in the experimental subjects. The study utilized a tape recorder and cinefluorographic film of each subject. Articulation was measured as the percentage of correct responses in an imitative word test. The mean measure of gap between the soft palate and the posterior wall of the pharynx was computed for each subject using standard utterances. The sentences were chosen so as to represent a) low vowel and consonants considered easy for the cleft palate speaker, b) high vowel and easy consonants, and c) a high vowel and more difficult consonants. The subjects included 10 normal speakers, six persons diagnosed as having palatal inadequacies, and 24 persons with cleft palate that had been surgically repaired. No one who had undergone pharyngeal flap surgery was included. Examination of the closure pattern plots showed six patterns of closure: a) Closure completed before first phonation and maintained until phonation was

stopped except for breaks associated with nasal consonants and adjacent vowels or with long pauses in phonation, b) usually closed during the course of phonation but with more breaks from closure than in category one, c) sometimes closed during the course of phonation, d) palate movement within three millimeters of closure, e) palate movement but no approximation of closure, and f) no palate movement reflected in the measure. The authors expected to show an increase in articulatory deficiency in persons with palatal pharyngeal gap in excess of 3.0 to 4.0 mm. So few of the subjects had gaps that large that the hypothesis remained untested. The results do indicate, however, that gaps smaller than, as well as larger than, 2.0 mm, may have an effect on articulation. The study also indicated that the relationship between measures of articulation and closure may be nonlinear. Passavant's ridge was formed during phonation and contributed to closure in two of the cases. The ridge was below the level of the elevated soft palate in a third subject. (Powers)

Scott, James H., The embryology of cleft palate and hare lip. *Brit. dent. J.*, 120, 17-20, 1966.

Here is clearly exposed, by one who is accepted as an authority on this subject, the present concepts of facial and oral development. His classical theory and the more recent theories of Stark, Baxter, and associates are outlined. The importance of the premaxillary element in cleft palate cases is stressed, as this represents an essential growth regulating mechanism for the middle facial skeleton. The etiology of cleft palate is discussed, particularly the genetic and environmental factors which together predispose to some 80% of such cases. The relationship of facial growth and the development of clefts of the palate and the establishment of the recognized Class III type jaw deformity is reviewed. (MacLennan)

Iwashita, A., An electromyographical study on the mechanism of speech. *Practica Otologica* (Kyoto), 58, 712-734, 1965.

The purpose of this study was to investigate the activities of various muscles during the phonation of isolated Japanese sounds. Five normal adults were examined. Electromyograms were obtained with a needle electrode inserted into the levator veli palatini through a nasal orifice, and voice was also recorded simultaneously to know the time relationship to the phonation. The author summarized the activities of the levator veli palatini as follows: a) The muscle began to contract at the rate of 200 to 400 times per msec, prior to the beginning of vowel phonation, and the amount of action currents were in the order of 250 to 350 volts. b) During phonation of consonants, the degree of the activity was in the following order from the strongest to the weakest: /p/, /b/, /s/, /z/, and /n/. The time duration from the beginning of contraction to the beginning of phonation was also in the following order from the longest to the shortest: /p/, /b/, /s/, /z/, and /n/. In the same way, he studied the duration and amount of activities of the orbicularis oris and the cricoarytaenoideus lateralis during the phonation. (Machida)

Matsuo, T., Suzuki, K., Takahashi, S., and associates, Electrocardiographical findings of cleft palate patients. *Shikwa Gakuho*, 65, 17-25, 1965.

As congenital heart diseases are said to be sometimes combined with cleft lip/palate, an electrocardiographical study was made to examine the hearts of patients with cleft lip and palate. Forty-nine subjects, ranging from two months to 36 years of age, were investigated, and abnormal EKG patterns were found in 13 of them: two of right ventricle hypertrophy, two of right-sided conduction dis-

turbance, one of supraventricular premature beat, one of ventricular premature beat, and seven of sinus arrhythmia. They concluded that right ventricular hypertrophy was the most serious congenital heart disease in cleft lip/palate cases. (Machida)

Sovák, M., Soziale faktoren in der palatalie. *Wiss. Z. Univ. Halle. Mathe.-Nat.*, 12, 201-205, 1963.

The object of this paper is to point out that neither anatomical forms and structures nor detailed description of their function and correlation can make clear the high occurrence of variations in the development of the cleft patients' speech. Considering the social determination as being of primary importance, we have to take into account not only the patient as an individual but also all the educational influences. Four possible combinations of the milieu and the cleft child have been noted: a) the cleft child before surgical repair, b) the cleft child after successful repair, c) in favorable social conditions, and d) in unfavorable social conditions. After analyzing the results we can state that a) proper social conditions exert favorable influence upon the development of the cleft children and their speech (before successful surgical repair and after it as well), and b) improper special conditions may determine speech disorders (before successful surgical repair and after it as well). Intensive special education of the cleft child and his speech by means of a systematic logopedic program is emphasized. (Pěnkava)

Jasinska, M., General anesthesia by means of trichloroethylene in children with developmental defects of the jaw and face. *Czas. Stom.*, 8, 933-939, 1965.

The proprieties of trichloroethylene are analyzed on the basis of 55 general anaesthetics carried out on the infants and children. The author feels that the agent

discussed is safe and easy to use. Its advantages are emphasized; the most important one is its strong analgetic action and nonexplosiveness of the vapours of trichloroethylene with oxygen. This should be an indication for its wider use. It is emphasized that this drug is the only agent of Polish make for inhalatory anaesthesia and one that does not threaten the operating theatre with an explosion. (Pěnkava)

Januszewska, W., The preparation of a child with cleft lip and palate for surgery. *Czas. Stom.*, 8, 931-934, 1965.

The utility of early pediatric care is emphasized in reference to infants with such a serious developmental defect as the cleft lip and palate. The manner of feeding and contraindications for surgery are discussed. (Pěnkava: Author's abstract)

Bardach, J., The premises of organization of a unit for the treatment of developmental defects of the face. *Czas. Stom.*, 8, 923-926, 1965.

The principles of organization of the Unit for the Treatment of Developmental Defects of the Face are centered first of all on the problem of schistasis of the lip and palate. Since this developmental defect requires combined planning and treatment, attention is called to the utility of employing in one unit all specialists participating in the treatment (pediatrician, surgeon, orthodontist, phoniatician, psychologist). A system of organized information for the Unit from gynecological and obstetric hospitals is presented. The Unit takes the initiative of treatment and conducts active dispensarization. The aim of the Unit is completing surgical and phoniatic treatment before the child starts school. The campaign for informing the parents of the goals of treatment is given much attention. (Pěnkava: Author's abstract)

Perczynska-Partyka, W., An original surgical method for unilateral cleft of the upper lip. *Czas. Stom.*, 8, 969-974, 1965.

An original surgical method for unilateral cleft lip is presented. The method is based on accurate measurements of the lip and the lines of intended incisions. It consists of double exchange of triangular lobes in the upper and lower part of the lip. The aim of this method takes into account preservation of possibly the largest amount of tissues of the reconstructed lip, lessening of the tension of the entire height of the lip, reconstruction of the normal outline of cupid's arch, elongation of the shortened part of the lip, transposition of the cutaneous septum of the nose, and placing of the wing of the nose in a position resembling the normal one. The results of the above method are illustrated by charts taken from the material of the Clinic of Jaw-Face Surgery of the Medical Academy in Lodz. (Pěnkava: Author's abstract)

Korzon, T., On the necessity of psychic rehabilitation in cases of developmental defects of the face. *Czas. Stom.*, 8, 951-954, 1965.

Attention is called to the frequent appearance of emotional disturbances in patients with developmental defects of the jaws and face. They are caused by the arrest of such needs as intellectual, functional, artistic, esthetic, and others. A patient with emotional disturbances takes on different approaches to life. It is manifested by corresponding forms of behavior of these patients. Long-lasting emotional disturbances, and particularly their final forms, lead to the appearance of psychoneurosis. Thus the authors suggest the necessity of cooperation with psychologist and psychiatrist for the purpose of preventing the appearance of disturbances of psychic equilibrium or for the purpose of employing psychic rehabilitation. (Pěnkava: Author's abstract)

Troneczynska, J., and Perczynska-Partyka, W., Indications for employing palate-pharyngeal flap in the treatment of cleft palate. *Czas. Stom.*, 8, 947-950, 1965.

On the basis of observation of 184 patients treated at the Unit for the Treatment of Developmental Defects of the Face, Clinic of Jaw-Face Surgery of the Medical Academy of Lodz, indications for plastic surgery by means of palato-pharyngeal flap are presented. The indications for employing a lobe pedunculated at the top or bottom are considered and the utility of performing the procedure in the primary and secondary procedures for the palate are discussed. The importance of team cooperation of a surgeon and phoniatric specialist in determining the indication for the surgical procedure discussed is emphasized. (Pěnkava: Author's abstract)

Perczynska-Partyka, W., The principles of surgical treatment of unilateral cleft lip. *Czas. Stom.*, 8, 941-946, 1965.

The principles of surgical treatment of cleft lip which were elaborated on the basis of 10 years' experience in the treatment of 503 patients with such developmental defects are presented. As a rule, the aim is to reconstruct all the characteristic anatomical features of the upper lip by using measurements of the lip and estimation of the lines of incision after the author's own surgical methods which consist of double exchange of triangular lobes. Attention is called to the incorrectness of loosening incisions in the vestibule of the oral cavity and exfoliation of the tissues of the cheek. The correctness of simultaneous procedures of the nose for the purpose of situating the alae nasi in a position resembling as much as possible the normal one is emphasized. A number of surgical details necessary in the repair of lips are presented. (Pěnkava: Author's abstract)

REGISTRY OF CURRENT RESEARCH PROGRAMS

The Registry will be maintained in subsequent issues of the *Journal*. Currently, the major source of information is the Bio-Sciences Information Exchange; however, other sources are invited to contribute. Descriptions of research programs to be listed with the Registry should be sent to the Editor.

Items are: Name of project; supporting agency; name of principal investigator with degrees; academic rank, institution, and address; and summary of project.

Deformities produced by intrauterine operations (NIH). *Leonard F. Peltier*, M.D., Ph.D., University of Kansas Medical Center, Kansas City, Kansas 66103.

Summary: The study of deformities will be continued to include the production of 'congenital bands' as well as the effect of the ligation of major arterial and venous trunks in the limb. The electroencephalogram of the fetal rabbit and the doe will be studied to determine, if possible, the effect of the birth process on the EEG as well as the effects of various drugs and agents.

Psycho-social aspects of thalidomide induced limb deformities (Association for the Aid of Crippled Children). *Hellmut Strasser*, Ph.D., Association for Mental Health, Widenmayerstrabe 24, Munich, Germany.

Summary: This is a study on psycho-social aspects of phocomelia, to be conducted in Munich, Germany. Subjects will be 100 families of children with thalidomide induced limb deformities (phocomelia, radius-aplasia, and hypoplasia). Their parents will be interviewed and the children examined. Reactions of the parents to the deformity and their educational and child rearing practices with

the phocomelic child shall be learned. Extensive treatment and qualified professional help will be offered to the parents. Other social influences upon the parents also shall be studied. The development of the children shall be evaluated.

Metabolic disorders associated with chromosomal anomalies (NIH). *Anne P. Forbes*, M.D., Department of Medicine, Massachusetts General Hospital, Boston, Massachusetts.

Summary: Clinical and cytogenetic studies of patients with chromosomal anomalies will continue along four lines: a) Effects of hormones on serum lipids, hyperlipemia and hypercholesterolemia, are common in Klinefelter's syndrome and in testicular insufficiency without recognized chromosomal abnormality. To determine if the cause is genetic or hormonal or a genetic trait expressed under certain hormonal conditions, further data will be obtained on the families as well as the patients of both groups and on the response of the hyperlipidemia to androgen, estrogen, and gonadotropin therapy. b) An increased incidence of diabetes and thyroid autoimmunity characterizes Klinefelter's syndrome and gonadal dysgenesis and the close relatives of the latter. These disorders in the families in which chromosomal accidents occur will be further investigated. c) Other metabolic and psychi-

atric disorders have an unusual incidence in these sex chromosomal anomalies. Medical examination of a series of XO and XXY individuals will continue in order to clarify the roles of sex linkage and sex limitation in the distribution of certain metabolic and degenerative diseases. d) Finally, in gonadal dysgenesis instances of partial deletion as well as absence of an X chromosome are available where comparison of the phenotype with the genotype may permit some localization of the X-linked factors identified.

Cooperative study of chromosomes and blood groups (Dept. of Health, Education, and Welfare).

Raymond Turpin, Institut de Progenese, 15, rue de l'Ecole de Medecine, Paris VI°, France.

Summary: The present project will be developed in two directions: a) the location of known genes within the human chromosomal set and the systematic study of chromosomal abnormalities either in-born or acquired later, and b) the biochemical consequences of chromosomal imbalance and, eventually, their artificial correction. This work will be conducted mainly on children suffering congenital abnormalities, essentially neurological and developmental. The grant will help to extend specifically this research on blood groups localization and detection of biochemical markers.

Development of head-face and body norms (NIH). *W. M. Krogman*, Ph.D., Graduate School, University of Pennsylvania, 3320 Walnut, Philadelphia, Pennsylvania.

Summary: We have on hand serial data on four statistically adequate samples of Philadelphia white and Negro children, male and female, B-17:0 years. The data are anthropometric (head, face, trunk, limbs), roentgenographic (head and hand films), dental models, and medical, dental, and family histories (clinical and genetic).

These are the nuclear series of children selected for medical and dental health ('normal'). For all children we have three ages: chronological, skeletal (maturation), and dental (eruptive). We have further data on orthodontic cases (1958) and cleft palate cases (658). The 'O' cases are serial, during treatment and follow-up. The 'CP' cases are mainly before-and-after surgical intervention. We have cross-sectional data on Cooley's Anemia (60-70), neuromuscular deficiency (62), Pierre Robin syndrome (22), and many serial and chromosomal abnormalities (30). These are studied and compared to our normative data. It is proposed to establish H-W norms and distance norms for all dimensions, velocity standards for the anthropometric, roentgenographic cephalometric, and maturational data. We shall compare skeletal assessments (100,000 hand films) via Tanner-Whitehouse and Greulich-Pyle standards. We hope to derive prediction equations for all our mensurational data. The dental models (tooth and arch) will be studied as they may correlate with cephalometry and roentgenographic cephalometry. Finally, we plan to code and punch all basic and derived data on IBM cards.

Analysis of children radiated early in fetal life (NIH). *Melvin L. Griem*, M.S., The University of Chicago, 5801 Ellis Avenue, Chicago, Illinois.

Summary: During the period of April 1948 to March 1949, primipara presenting themselves to the Chicago Lying-in Hospital were routinely x-rayed for diagnostic pelvimetry early in pregnancy. It is estimated that the radiation to the early fetus averaged an absorbed dose of three to 10 rads. It is intended to compare the morbidity and mortality of this group of 1002 children of these pregnancies with children of primipara presenting themselves at the Chicago Lying-in Hospital the year before and the year after the above period. These latter two groups of

children received little or no pre-natal x-rays. Data is being collected for computer analysis concerning occurrence of congenital anomalies, malignancies, and frequency of serious illnesses among these children. From the pre-natal history and the X-ray Department files, factors which might effect the health of the child are being obtained.

Fetal x-irradiation, differentiation, and fertility (NIH). *Roberts Rugh*, Columbia University, College of Physicians and Surgeons, 630 West 168th Street, New York, New York.

Summary: It has been established that the embryonic and early post-natal female mouse is considerably more radio-sensitive than is the male of the same strain with respect to subsequent fertility. The quantitative details, including the reproductive quotient data, will shortly be presented. Incidental to this massive study it has been determined that the exposure of x rays sufficient to kill half of the embryos in utero is higher, in most cases, than the dose level to the embryo which will kill after birth. For example, the dose which kills half of the embryos when exposed at 10.5 days gestation is almost exactly twice the dose of x rays which will result in half of those which are born dying within the first 30 days after birth. Thus, the pre-natal irradiation and post-natal mortality (or survival) will comprise one portion of the immediate further

study. In the meantime another adjunct study will investigate the difference in reproductive potential of the virgin female as opposed to the multi-para female, and the young versus the old virgin mice, with and without irradiation insult.

Reconstructive surgery and coordinated habilitation (NIH). *Anthony M. Abruzzo*, M.D., Lapeer State Home and Training School, Drawer A, Lapeer, Michigan.

Summary: The need for a more highly developed Reconstructive Surgical Unit and effective coordinated Habilitation Department has been studied at the Lapeer State Home, where a very large number of patients are found to have different neuromotor manifestations of organic brain damage with or without seizures, mental retardation, or congenital abnormality. During a recent screening of patients for possible corrective surgery, we were confronted with difficulty in classifying their neuromuscular defect by clinical tests which are mostly based on subjective assessment of muscle tones in the affected side. The objective method of evaluation of the nerve and individual muscle group is felt to be a very important factor to determine the indication of surgery and the type of surgical procedure. Electromyography and Galvanic-Faradic testing must be utilized, especially in the upper extremity, in order to establish a rational surgical surgical therapy.

ANNOUNCEMENTS

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

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

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

The Lancaster Cleft Palate Clinic is presenting a seminar entitled 'Habilitation/Rehabilitation of Oral-Facial-Communicative Disorders,' October 24-28, 1966. Graduate trainingship awards from the National Institute of Dental Research, U. S. Department of Health, Education, and Welfare, are available to qualified individuals in the fields of medicine,

dentistry, speech, and audiology. The award pays registration and tuition fees, transportation, and per diem costs for the five days at the Lancaster Clinic. Lectures and case studies are presented by clinic staff and noted guests in the diagnosis, treatment, and research of communicative disorders. Address all inquiries to R. T. Millard, Program Director, Lancaster Cleft Palate Clinic, 24 N. Lime Street, Lancaster, Pennsylvania 17602.

Bowling Green State University is pleased to announce its new doctoral program in Speech Pathology and Audiology. Graduate Assistantships and Fellowships are available for September, 1966. Applicants should write to Dr. Melvin Hyman, Director, Speech and Hearing, Bowling Green State University, Bowling Green, Ohio 43402.

The Mayo Graduate School of Medicine and the Section of Dentistry and Oral Surgery of the Mayo Clinic announce a graduate training program in prosthodontics leading to a Master of Science Degree in Dentistry, or a Certificate of Achievement. Appointments for the 36-month course of study in conventional and maxillofacial prosthodontics are made once each year, beginning with the summer quarter. Didactic courses, practice teaching, and clinical and research experience 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 55902.

The following professional meetings are announced:

American Medical Association (clinical convention), November 27 to 30, 1966, Las Vegas.

Decennial Conference on 'Cell, Tissue, and Organ Culture', September 11 to 15, 1966, Bedford, Pa.

American Academy of Ophthalmology and Otolaryngology, October 16 to 21, 1966, Chicago.

American Academy of Pediatrics, October 22 to 27, 1966, Chicago.

The Academia de Estomatologia and the Circulo Odontologico de la Libertad celebrate their VI Congreso Nacional de Odontologia Y II Internacional de Estomatologia del Peru on November 20, 1966. The Congresses, from November 20 to November 24, will cover the different

aspects of Odonto-Stomatology. In addition, there will be the First International Meeting of Endodontia, and Special Chapters on Sanitary Dentistry, Dental Education, and Dentistry in the Armed and Auxiliary Forces. There will also be a Dental Exposition. Inquiries should be made to:

Dr. Julio Begazo S.
Jr. Chota 760—Casilla 2467
Lima, Peru S.A.

The Ninth Congress of the Japanese Society of Plastic and Reconstructive Surgery will be held under the auspices of the Keio University School of Medicine in Tokyo on November 1 and 2, 1966. Foreign guests who desire to participate in the program, in the form of presentation of scientific papers and/or motion picture films, are cordially invited. Please address further inquiries to:

Professor Torai Iwahara
President, Ninth Congress of the
Japanese Society of Plastic and
Reconstructive Surgery
Department of Orthopedics
Keio University School of Medicine
35 Shinanomachi, Shinjukuku, Tokyo, Japan

Erratum

The volume number on the front cover and spine of the April 1966 *Cleft Palate Journal* should read *Volume 3* instead of *Volume 4*.

LETTER TO THE EDITOR

Dear Sir:

I hope this is an appropriate vehicle for calling to the attention of readers of the *Cleft Palate Journal* a book of special interest to them—a small classic with which I find few of my friends are acquainted.

Precious Bane was written by the English author Mary Webb in 1924. Its main character, Prudence Sarn, a person of blithe spirit and granite character, has a cleft lip. This story of Prue's changing self-awareness and ultimate self-realization has much to say about the personal and social impact of such an anomaly. The author sensitively evokes the individual sorrows and longings, folk superstitions and fears, and primitive notions of etiology, as the following passages illustrate. (Pages refer to the Modern Library edition.)

I wished there was some shorter way to be as beautiful as a fairy. Then a thought came to me all of a sudden. I wonder it didna come afore, but then I'd never much minded having a hare-lip afore. It seems to me that often it's only when you begin to see other folks minding a thing like that for you, that you begin to mind it for yourself. I make no doubt, If Eve had been so unlucky as to have such a thing as a hare-lip, she'd not have minded it till Adam came by, looking doubtfully upon her, and the Lord, frowning on His marred handiwork. (P. 58)

Prudence stops at an inn at the town of Lullingford, where a group of old men are drinking outside:

But when we were come by these old ancients, every one held his mug where it was, and stopped in his singing, and so sat with his mouth open and his eyes fast on me. They were like those new-fangled mommet-shows with the little dolls that stop all together when the showman unhands them. There they sat, with the inn behind them and the frosty sunshine on their old, red, veiny faces, and a kind of frittened look. As we passed the bench, every head of them came round slow, and the score or so of eyes stared slantwise over the rims of their cups, as young owls will stare and turn their heads, watching you over their feathers.

As we went through the dark doorway, with its door studded with nails like a prison, and came into the inn parlour, where sat the more genteel, I saw their looks fasten on me too, but more shyly.... All on a sudden I knew that all these folk, the grand ones within and the old fellows without, were staring at my hare-shotten lip. They were thinking, according to their station and their learning—

“Here's a queer outlandish creature!”

“This is a woman out of a show, sure to goodness!”

“Here be a wench turns into a hare by night.”

“Her's a witch, an ugly, hare-shotten witch.”

Maybe in the tuthree times I'd come to Lullingford in the past they'd stared so, but then I was but a child and didna see.

I could hear the old men without croaking like a lot of rooks, and one said—

“Dunna drink while she’s by. It’ll p’ison yer innards.”

Another said—

“Dunna look upon the baigle. Her’ll put the evil eye on you. You’ll dwine and dwine away.”

The folk inside looked at each other, and I wished I could die. . . . Living so apart I had not truly felt my grief afore. But now I knew that I was fast bound in misery and iron, as the Book saith. Ah, prisoned beyond a door to which the great nailed door of the inn was but paper! (Pp. 81–83)

Mother kept on patting Jancis on shoulder, and saying “Pretty thing! Pretty!” and once I heard her cautioning Jancis against hares.

“When your time comes, my dear, dunna you go in the ‘oods much, nor yet in the meadows. Keep near whome and you wunna come across one, ’Twould be a said mischance, so it would.” (P. 213)

Freedom for Prue comes through the love of Kester Woodseaves:

I left off wondering what he thought of my hare-shotten lip, for indeed it seemed he thought of it not at all. I called to mind a thing he’d said while we watched the dragonflies, about sin. He said if you thought of it rightly it just wunna there. It was gone like the shrouds of the dragonflies when they’d wrosted free. What did you want to go hunting about after the shroud for, when you could look at the bright fly? Maybe that was how he thought of me. My poor hideous lip was, as it were, my sin, though a kind of innicent wickedness. It was my sin, and all the rest of me was my righteousness, and my glory, and the way I made him glad. I cried a long while for very joy, and such a rushing happiness went through me as seemed to make all the blood in my veins new, and I felt as if it was so pure and strong it might even cure me of my ill. There was some truth in it, too, for my lip did never look quite so bad from that day. (Pp. 260–261)

And the last page of the book, with the cleft lip in clear focus, brings happy resolution of Prue’s problems.

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Mayo Clinic
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Information for Applying for Membership

The Association was organized in 1940 with the following objectives:

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

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

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

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

Send applications or requests for further information to:

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American Cleft Palate Association
Department of Communicative Disorders
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