

Abstracts of Current Literature

Anthropology

ANTHROPOLOGIC ASPECTS OF DENTOFACIAL DEFORMITIES. HARRY BERNARD WRIGHT, Am. J. Orthodont. & Oral Surg. 25:218 (March) 1939.

Deformities of the dentofacial structures are but one manifestation of growth disturbances affecting the entire organism. Factors causing such deformities were just as active in primitive man as they are now. Todd, Hellman, Brodic and others are quoted with respect to the relation of function and the form of bone.

LEWIS, Dayton.

Case Analysis and Diagnosis

THE ANALYSIS OF A COMPLICATED CASE UNSUCCESSFULLY TREATED. ROBERT H. W. STRANG, Am. J. Orthodont. & Oral Surg. 25:330 (April) 1939.

Diagnosis, case analysis, classification, and treatment of a nine year old girl with a Class II, Division I case complicated by forward movements of all four buccal segments.

LEWIS, Dayton.

Dental Caries

BITE WINGS PRELIMINARY TO ORTHODONTIC TREATMENT. STEPHEN C. HOPKINS, Am. J. Orthodont. & Oral Surg. 25:354 (April) 1939. (See Roentgenology.)

INFLUENCE OF GESTATION ON THE TEETH. P. PANTAZIS, L'Odontologie 77:89-95 (Feb.) 1939.

This report is inspired by the author's handling of a young woman patient whose teeth rapidly degenerated during her pregnancy. Clinical symptoms and laboratory findings in her case are discussed, and the subject of the organic changes found during pregnancy is outlined, together with theories of how these changes influence oral health. Recommendations for maintaining the oral health during pregnancy are made to both physician and dentist, with a warning as to the possible harmful effects of irrational administration of mineral elements.

NEWCOMB, Cleveland.

*DENTAL CARIES IN SOUTH AFRICA. J. STAZ, S. African J.M.Sc.3, Suppl. 63 p. (NAR, 8:777).

*STUDIES ON DENTAL CARIES: VI. CARIES EXPERIENCE AND VARIATION IN THE TIME OF ERUPTION OF THE PERMANENT TEETH. H. KLEIN and C. E. PALMER, Child Development 9:203-218. 1938.

This study deals with the association between the relative time of eruption of the lower first permanent molar teeth and the caries experience found therein. 4,400 white elementary-school children of Hagerstown, Md., were the subjects. Children whose permanent teeth erupt early have at comparable chronological ages higher absolute levels of caries experience than do children whose permanent teeth erupt later. However, this fact is due to the greater opportunity for caries experience with early eruption, and there seem to be no significant differences between early and late eruptors in their caries attack rates per year of mouth exposure (tooth age). (PA, 12:671.)

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Dental Hygiene and Public Health

*STUDIES ON DENTAL CARIES. 4. TOOTH MORTALITY IN ELEMENTARY SCHOOL CHILDREN. J. W. KNUTSON and H. KLEIN, Pub. Health Rep. 53:1021-1032. 1938.

Measures for dealing with the above problem are discussed, and it is concluded that examination of the lower right (or left) first molars affords a reliable method for the comparison of tooth mortality rates in children. (NAR, 8:504.)

*DIFFERENCES IN DENTAL CARIES EXPERIENCE OF ELEMENTARY SCHOOL CHILDREN. Pub. Health Repts. 53:1685-1690. 1938.

Results derived from an analysis of dental examinations of 2,232 boys and 2,184 girls indicate that the higher caries experience of girls, as compared with that of boys of the same chronological age, is explained quantitatively by the finding that girls, because their teeth erupt earlier than do those of boys, are exposed longer (have a greater posteruptive tooth age) to the risk of attack by caries than are boys. On the basis of these findings, the conclusion is reached that girls show no greater susceptibility to attack by dental caries than boys. (Authors' summary.)

Dentistry and Dental Relations

†PREVENTIVE DENTISTRY IN THE PRE-SCHOOL PERIOD AND DURING FOETAL LIFE. M. ALY OSMAN, J. Egyptian M. A. 21:388 (June) 1938.

This paper is rather general. The writer mentions the necessity of proper diet and the proper vitamin intake for the pregnant woman and later for the baby, to insure good teeth. A plea is made for close cooperation between physicians and dentists. MULHERIN, Augusta, Ga.

Education, Legislation, Economics

FUNDAMENTAL PRINCIPLES OF ORTHODONTICS. ARTHUR L. WOOTEN, Am. J. Orthodont. & Oral Surg. 25:350 (April) 1939.

The purpose of this paper is to present ordinary facts about orthodontics which should be familiar to the lay public as well as the profession. The predisposing causes and the local causes of malocclusion are listed.

LEWIS, Dayton.

*EVALUATION OF DENTAL PROGRAMS FOR CHILDREN. J. M. WISAN, Am. J. Pub. Health 28:859-906. 1938. (JAMA, 111:970.)

Endocrinology

†SUBTHYROIDISM WITH DEFECTIVE DENTAL DEVELOPMENT. C. G. KERLEY, A. P. 55:548 (Sept.) 1938.

Kerley reports the case of a 15 year old girl with retarded statural growth and delayed somatic development. Her height was 57 inches (144.7 cm.) and her weight 78 pounds (35.4 Kg.). Pubic hair was absent, and the mammary glands were rudimentary. The menarche had not appeared. The bone age was that of a child of 12 years.

A particularly outstanding feature of the case was the late shedding of the deciduous teeth. All the deciduous teeth but one were present in the jaws.

Desiccated thyroid, $1\frac{1}{2}$ to $2\frac{1}{2}$ grains (0.1 to 0.16 Gm.) daily was administered over a period of eight months. During that time the patient gained $3\frac{3}{8}$ in. (8 cm.) in height. The menarche appeared after five months of treatment.

At the time of the first roentgen examination all the permanent teeth except the third molars were fully formed, with complete development of roots, showing that the

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greatest natural eruptive force was passed and that little could be expected in the way of eruption. The second roentgen examination showed developmental changes only in the third molars. This change occurring after a period in which there was time for the stimulating effect of the thyroid therapy to be operative, suggests that if thyroid medication had been started earlier, formation and eruption of the teeth might have been satisfactory.

ORR, Buffalo.

Etiology

*FETAL MICROCEPHALY DUE TO ROENTGEN IRRADIATION OF THE PREGNANT MOTHER. M. HIRVENSALO, *Acta paediat.* 21:188. 1937.

In 1926 Zappert drew attention to the possibility that roentgen irradiation of the pregnant woman during the early months of pregnancy may exert a seriously harmful effect on the fetus. In a critical examination of the published reports of 20 cases he reached the conclusion that the injury consisted essentially in an arrest of development at the stage at which it had progressed at the time of exposure to the roentgen ray. He regarded three stigmas to be characteristic of the damage produced by this agent: microcephaly, mental defect and gross deformities of the eyes. Statistical examination revealed that almost 50 per cent of fetuses that received roentgen radiation in the early months of gestation exhibited evidence of injury if they remained viable and survived to term. Zappert's "roentgenous fetal microcephaly" crystallized the implications of a considerable number of antecedent clinical and experimental observation; the correctness of his concept has been confirmed and the extent of the application of this concept amplified by several subsequent publications. It is now widely held that therapeutic and even diagnostic exposure of the mother's reproductive apparatus to roentgen radiation may injure the fetus in about 50 per cent of the cases; irradiation of extra-genital parts is also under suspicion of producing harm. Exact information is not available concerning the quantitative aspects of the roentgen dosage; however, experimental evidence suggests that as little as 3 or 4 erythema doses may produce damage to embryonal nerve tissue. Less is known concerning the harmful potentialities of radium. Those who regard the possibility of damage to the fetus as real urge that roentgen irradiation for any purpose be used sparingly during pregnancy and that if any considerable amount of roentgen radiation is applied to the mother pregnancy should be terminated in order to avoid responsibility for the birth of a seriously defective infant. The illustrative case reported possesses small value as evidence. The bibliography contains useful titles. (*AJDC*, 57:220.)

APPLICATIONS OF THE PRINCIPLES OF HEREDITY TO ORTHODONTICS. PAUL B. SAWIN, *Am. J. Orthodont. & Oral Surg.* 25:401 (May) 1939.

Physical characters in man and animals may be inherited in a simple Mendelian manner induced by the genes in the chromosomes, and also may be the result of the combined effects of genetic and environmental forces, in which case their analysis is more difficult. Breeding experiments with animals indicate that genes effect definite chemical reaction; others affect the time at which physiologic processes take place; others control the rate of growth of the whole organism or its parts; and still others exert a morphologic effect through the medium of an altered endocrine or other physiologic influence.

New pedigrees of characters such as simian shelf, width of dental arch and variation in prominence of chin are presented to illustrate how the question of inheritance of these variations may be approached. They are not offered as proof of any type of inheritance or that any of these variations are inherited, but they are highly suggestive and it is hoped greater interest be taken in obtaining complete family history of all cases.

LEWIS, Dayton.

WHEN IS THE FRENUM LABIUM A PROBLEM IN ORTHODONTICS? HARRY E. KELSEY, *Am. J. Orthodont. & Oral Surg.* 25:124 (Feb.) 1939.

The author feels that if an orthodontist is operating on more than three or four per

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cent of his total number of cases he is allowing his enthusiasm to influence his judgment, and that the frenum only becomes a problem when the operator himself makes it so.

LEWIS, Dayton.

THE BIOCHEMICAL ETIOLOGY AND DIAGNOSIS OF MALOCCLUSION AND THE USE OF MINERALIZATION AND VITAMIN THERAPY IN ORTHODONTIC TREATMENT. S. ALBERT SIGEL, Am. J. Orthodont. & Oral Surg. 25:235 (March) 1939.

The essayist is convinced by his studies in blood chemistry in the last four years, as revealed by the examination of some 140 patients, that faulty mineral metabolism has been shown to be one of the principal factors, if not the chief factor in the production of dento-facial irregularities.

The author believes that malocclusion is characterized by a severe mineral and vitamin C deficiency. He claims dental caries was definitely arrested in 90 per cent of his patients: they also experienced marked improvement in health and he obtained better cooperation from patient and parents.

LEWIS, Dayton.

FUNDAMENTAL PRINCIPLES OF ORTHODONTICS. ARTHUR L. WOOTEN, Am. J. Orthodont. & Oral Surg. 25:350 (April) 1939. (See Education, Legislation, Economics.)

SUPERNUMERARY TEETH. EDWIN G. FLINT, Am. J. Orthodont. & Oral Surg. 25:135 (Feb.) 1939. (See Pathology.)

Fractures

ORTHODONTIC TREATMENT OF A FRACTURED MANDIBLE COMPLICATED BY OSTEOMYELITIS. KYRLE W. PREIS, Am. J. Orthodont. & Oral Surg. 25:168 (Feb.) 1939.

A report of a complicated fracture case in which proper occlusion of the teeth was maintained by the use of a rigid splint.

LEWIS, Dayton.

Growth and Development

DENTOFACIAL RELATIONS AT TWELVE YEARS. BOYD W. TARPLEY, Am. J. Orthodont. & Oral Surg. 25:107 (Feb.) 1939.

An investigation designed to arrive at a norm pattern for the denture at twelve years of age. Photographs, gnathostatic models and three-dimensional graphs were made for thirty-two children with normal jaw relationships.

LEWIS, Dayton.

THE TREND OF CLINICAL ORTHODONTICS. LEUMAN M. WAUGH, Am. J. Orthodont. & Oral Surg. 25:419 (May) 1939.

A review of the development, calcification, and eruption of teeth in their relationship to the growth of the face. Diagnosis, examination and mechanical therapy are discussed. The author is of the opinion that while plain labial and lingual arches and bite plates bring about correction in many cases, a more exacting technique such as the edgewise arch mechanism is more desirable.

LEWIS, Dayton.

*BODY PROPORTIONS IN THE GROWING INFANT. H. THOMPSON, Growth 2:1-12. 1938.

Four hundred and forty-seven examinations were made on 46 male and 53 female infants between the ages 8 and 56 weeks. The homes were of the average socio-economic status of New Haven. Data include length from the soles of the feet to the vertex, to the supra-sternal notch, and to the symphysis; transverse diameter of the thorax at the nipples and biacromial and bicristal diameters; circumferences of the head and of the thorax at nipple level; weight and dentition. *Growth curves show a temporary depression between 24 and 40 weeks which may be related to the rapid dentition period.* The soles-symphysis: total length ratio varied most regularly and the bicristal diameter:

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total length and biacromial diameter: thorax diameter altered least with age. Relative logarithmic growth ratios indicate that changes in body proportion are due not merely to one part having a growth coefficient different from another but to modifications of a complex nature which must be taking place. (NAR, 8:441.)

†PHYSICAL DEVELOPMENT IN CHILDREN UP TO TWO YEARS: A STUDY OF MATERIAL COLLECTED IN WELFARE STATIONS. R. BARANSKI, *Pedjatrja polska* 17:53 (Feb.) 1938.

Up to 1938 Poland did not have her own statistical data on physical development in children up to 2 years of age. Physicians and medical students had to use measurements and data on physical development from other nations. This was not justifiable, because children of other nationalities or races live in different circumstances and present different types of development. This compelled Baranski to direct research along these lines. Part of the work was inaugurated by Dr. J. Bogdanowicz. The clinical material that has been accumulated in the department of children's diseases at the University of Pilsudski prompted Baranski to pursue this type of work where he has conducted the children's clinic for the last fifteen years. His material comprises only healthy non-Jewish children of both sexes up to 2 years of age. For statistical data reference may be made to the article.

KRUPINSKI, Chicago.

Habits

THE PSYCHOLOGY OF NERVOUS HABITS. ARTHUR FRANK PAYNE, *Am. J. Orthodont. & Oral Surg.* 25:324 (April) 1939.

A discussion of the analysis, classification, and treatment of nervous or emotional habits. He believes most habits such as picking the nose, nail-biting, stammering, sniffing, and others are symptoms of the emotional state, and generally that emotional state is based upon a condition of anxiety, insecurity, inferiority and tension. A condition of anxiety and nervousness may be caused by forcing a left handed child to use his right hand.

The author tells us to analyze the symptoms in search of causes; then adjust the cause to effect the cure. To find the causes we must project ourselves into the mind, the personality, and the state of consciousness of the child. The one emotional state that causes most trouble is the condition of inferiority. A child should never be ridiculed. Autosuggestion is considered as a cure for some habits.

LEWIS, Dayton.

Heredity Genetics

APPLICATION OF THE PRINCIPLES OF HEREDITY TO ORTHODONTICS. PAUL B. SAWIN, *Am. J. Orthodont. & Oral Surg.* 25:401 (May) 1939. (See Etiology.)

Miscellaneous

THE CHARGE TO THE NEW MEMBERS. HARVEY A. STRYKER, *Am. J. Orthodont. & Oral Surg.* 25:338 (April) 1939.

The purpose of this paper is to acquaint the new members of the Pacific Coast Society of Orthodontists with the aims and objects of the Society and the obligations that membership involves.

LEWIS, Dayton.

*AN OVERSIZED INFANT WITH EARLY DENTITION. NANCY M. SCHACHTER, *Lattante* 8:491. 1937.

The infant, a boy, weighed 10½ pounds (4,763 gm.) and had two teeth at birth. At the age of 8 months, he weighed 24 pounds 11 ounces (11,198 gm.) and was 30¾

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inches (78 cm.) tall; this is the size of a child aged $1\frac{1}{2}$ years. The mother was obese, weighing 167 pounds (75.7 kg.), and had had two previous miscarriages, although a serologic study of her blood gave negative results. The author discusses the possible causes of this child's obesity, large size and early dentition from the point of view of the endocrine system—especially, the pineal, pituitary and thyroid glands—and from that of the vegetative nervous system and possible neurotrophic infections, such as syphilis. (AJDC, 57:172.)

*STUDIES OF THE BACK IN CHILDREN WITH PERFECT TEETH. K. A. KNUDSEN, Ugeskr. Laeger 100:770-771. 1938.

Among the 61,000 children in Danish State schools there were 159 with perfect teeth, i.e., 0.26 per cent. Of these 128 were examined, 68 boys and 60 girls, and it was found that 58 boys (85%) and 53 girls (88%) had also perfect backs, as compared with 52 and 55 per cent in an earlier series of 17,075 boys and 775 girls. Good backs and good teeth are therefore correlated. An analysis by age showed that 29 of the boys and 23 of the girls with perfect teeth were aged 7 years and that after age 14, only 1 boy and 1 girl had perfect teeth. There is a similar deterioration of backs with age, although not so marked. (NAR, 8:740.)

*INFERIORITY COMPLEXES AND DENTAL ART. E. CHARRON, Union m  d. du Canada 66:414. 1937.

In a brief article, Charron calls attention to the need of orthodontia to prevent feelings of inferiority in growing children. (AJDC, 65:1164.)

*AURAL SYMPTOMS DURING THE FIRST DENTITION. L. HOFMANN. M  nchen. med. Wehnschr. 84:1407. 1937.

There is considerable difference of opinion as to whether dentition can produce fever, gastrointestinal disturbances or other symptoms. Hofmann has observed certain symptoms referable to the ear which are associated with the first dentition. The infant may rub or pull at the lobe of the ear or in other ways indicate that there is something irritating him in that region. Examination reveals that the external ear and the drum are normal but that the gums are usually red and swollen. The condition is considered to be otalgia nervosa. (AJDC, 56:1164.)

Nutrition and Metabolism

PREVENTIVE DENTISTRY IN THE PRE-SCHOOL PERIOD AND DURING FOETAL LIFE. M. ALY OSMAN, J. Egyptian M. A. 21:388 (June) 1938. (See Dentistry and Dental Relations.)

*DETECTION AND IMPORTANCE OF VITAMIN C IN BONE AND MUSCLE DEVELOPMENT. L. KLEIN, Anat. Anz. 87:12-21. 1938. (CA, 33:695.)

*MOUTH LESIONS ASSOCIATED WITH DIETARY DEFICIENCIES IN MONKEYS. N. H. TOPPING and H. F. FRASER. Pub. Health Rep. 54:416-431. 1939. 4 tables, 8 plates.

Although the number of animals is relatively small, observations on *Macacus rhesus* monkeys are presented which indicate that certain of the dietary deficiencies tested are associated with the development of varying manifestations of gingivitis, stomatitis, periodontal disease, and noma. Comparable animals maintained on adequate diets showed little or no evidence of such oral pathology. In addition, monkeys maintained on a stock diet showed no evidence of gingivitis or stomatitis when material from affected monkeys was transferred directly to them. (Authors' summary.)

*NUTRITION AND DIET IN RELATION TO PREVENTIVE DENTISTRY. E. C. McBEATH. N. Y. J. Dentistry. 8:217-221. 1938.

This paper is a summary, analysis and reevaluation of data on caries incidence in 800 children on different types of diets, reported by McBeath in 1932-1934. The highest caries incidence occurred in the control group on a regulation diet, low in fresh milk,

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fresh fruits and vegetables but adequate to keep the children well nourished and healthy according to current standards. Moderate reduction of caries was obtained by revising the diet to include ample fresh milk, fresh fruits and vegetables, or by supplementing it with viosterol. More marked reduction of caries was obtained on the revised diet supplemented with codliver oil or with ultraviolet irradiation. In further studies in which a vitamin D concentrate was provided in evaporated milk at three different levels to different groups of children, the caries incidence was found to vary inversely with the vitamin D level provided. The results suggest that ordinary diets lack sufficient vitamin D to prevent caries, and that this vitamin, together with the relatively constant values for Ca and P in average diets, is the principal factor in the control of dental disease. Charts illustrating the data are included. (CA, 32:5874.)

*INVESTIGATIONS OF C VITAMIN STANDARD IN HEALTHY CHILDREN AND IN CHILDREN SUFFERING FROM GINGIVITIS. C. W. HERLITZ. *Acta pediat.* 23:43-78. 1938.

Herlitz used the modified Lund and Lieck method of determining the content of ascorbic acid in the blood serum in forty-four healthy children without gingivitis and fifty-seven children with severe gingivitis, between the ages of 3 and 16 years, after the oral administration of 10 mg. of ascorbic acid per kilogram of body weight. It was found that the ascorbic acid content of the serum increased in the same degree to which raw fruit was added to the diet. This signifies an indirect control of the reliability of the food anamneses. The average fasting value for children who were given a moderate supply each day of raw fruit (approximately one orange or apple) in addition to an otherwise normal diet was 0.71 ± 0.073 and the two hour value, after loading, was 1.87 ± 0.111 mg. per hundred cubic centimeters of serum. The corresponding figures for children, who under otherwise similar conditions, seldom or at most received raw fruit only once a week were 0.24 ± 0.025 and 0.69 ± 0.05 mg. respectively. When the fasting values lie below 0.4 and, simultaneously, the two hour value is below 1 mg. the child has probably been receiving food poor in vitamin C content or a subnormal vitamin C standard is present. The existence of this combination of values does not in itself permit the diagnosis of scurvy. The probability that gingivitis has any connection with subnormal ascorbic acid was not elicited but that this condition must be referred to some other etiologic factor is suggested. Extremely low serum-ascorbic acid values may be made to rise to a normal level in three weeks by adding fruit to the diet in moderate amounts. (J.A.M.A., 111:2344.)

Pathology

ROOT FRACTURES AND THEIR TREATMENT. M. DECHAUME. *La Revue de Stomatologie.* 40:737 (Nov.) 1938.

Three cases of root fractures, together with their treatment, are reported. On the basis of Leriche's work on the repair of bone fractures, the author concludes by stating his theory as to the failure of the repair of root fragments.

NEWCOMB, Cleveland.

CASE REPORT OF INTERNAL RESORPTION. MEYER EGGNATZ. *Am. J. Orthodont. & Oral Surg.* 25:166 (Feb.) 1939.

Owing to the severe trauma, the mesial and distal surfaces of this tooth were resorbed. When the resorption process reached the pulp, the embryonic connective tissue was changed to adult connective tissue, which will produce only cementum or bone. After extraction, an area of developing bone was found in the pulp.

LEWIS, Dayton.

THE ERUPTION OF AN IMPACTED AND ENCYSTED CANINE. M. R. CHIPMAN. *Am. J. Orthodont. & Oral Surg.* 25:159 (Feb.) 1939.

In this case report we find the impacted canine successfully brought down into place with very little orthodontic assistance. The original x-ray shows a dentigerous cyst involving the impacted canine, deciduous canine, lateral incisor and first premolar. Final

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x-rays show the canine in proper position and that bone formation has taken place around the lateral incisor and first premolar.

LEWIS, Dayton.

SUPERNUMERARY TEETH. EDWIN G. FLINT. *Am. J. Orthodont. & Oral Surg.* 25:135 (Feb.) 1939.

The purpose of this paper was to discuss the attributed etiology, diagnosis, classification, and treatment of the supernumerary tooth and its resulting problems. The morphologic variations of supernumerary teeth, and the classification and treatment of cases caused by supernumerary teeth are considered in detail.

LEWIS, Dayton.

WHEN IS THE FRENUM LABIUM A PROBLEM IN ORTHODONTICS? HARRY E. KELSEY. *Am. J. Orthodont. & Oral Surg.* 25:124 (Feb.) 1939. (See Etiology.)

*CONGENITAL ABSENCE OF DECIDUOUS AND PERMANENT TEETH. D. S. GREY. *J.A.M.A.*, 25: 748-749. 1938. 2 figures.

The author reports case of an American boy, white, age 9, with congenital absence of 6 deciduous and 30 permanent teeth. One other child, a boy, now dead, had congenital absence of laterals. Mother has congenital absence of laterals and third molars. Father has congenital absence of all third molars. (BA, 12:1313.)

*MOTTLED ENAMEL IN OKLAHOMA PANHANDLE AND ITS POSSIBLE RELATIONS TO CHILD DEVELOPMENT. JOHNNY A. BLUE. *J. Oklahoma State M. A.* 31:295-301. 1938.

A survey of the water supply of the Oklahoma panhandle showed wells in the endemic area to be 132 to 330 feet deep and to contain 0.6 to 2.6 parts of F per million. Wells in the nonendemic areas contained about 0.6 parts per million. Shallow wells contained about 1 part per million. Studies were made on 400 school children of whom 10% reported fractured bones, 15% rickets, 43% were more than 10% under weight. Dental caries, gingivitis, and malocclusion rates were much higher than normal. (CA, 33:223.)

*EXAMINATION OF NORMAL AND DISEASED TEETH WITH POLARIZED LIGHT. SIGNIFICANCE OF THE EXAMINATION FOR MEDICINE IN GENERAL. F. PROELL. *Deutsch. med. Wchnschr.* 64:1028-1039. 1938.

The changes which occur in teeth as a result of physiological (e.g., pregnancy, lactation) and pathological (e.g., vitamin C or D deficiency, acidosis, alkalosis) processes can be observed, even in their early stages by means of an ordinary microscope if polarized light is used for illumination. The lower incisors of rodents are particularly well suited for examination in this way, even the changes produced by feeding different kinds of bread to rats being detected, but valuable information may also be gained by studying human teeth. (NAR, 8:579.)

*THE VITAMIN C STANDARD IN HEALTHY CHILDREN AND IN CHILDREN SUFFERING FROM GINGIVITIS. C. W. HERLITZ. *Acta paediat.* 23:43-77. 1938. (CA, 33:693.)

*CLEFT PALATE: A CORRELATION OF ANATOMIC AND FUNCTIONAL RESULTS FOLLOWING OPERATION. W. RITCHIE. *Arch. Surg.* 35:548. 1937.

The report concerns 100 cases of cleft palate in which an operation was done for repair. The anatomic results were carefully tabulated, and the phonetic results were noted. In the phonetic tests particular stress was placed on disturbances in the quality of tone and in the articulation. The purpose of the study was to correlate the speech defects with the anatomic results. It was found that good anatomic results do not necessarily mean good functional results. In the cases presented the ultimate speech in 42 per cent was classed as excellent, in 43 per cent as good, in 14 per cent as fair and in 1 per cent as bad or unintelligible. (AJDC, 56:689.)

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*FEEDING THE INFANT WITH CLEFT PALATE WITH THE AID OF A DENTAL PLATE. REPORT OF FIVE CASES. J. H. SILLMAN. 4 p. illus. Reprinted, with additions from Am. J. Dis. Child. 56:1055-1058. 1938.

A method of feeding with the aid of an accurately fitted dental plate enables babies with cleft palates to be fed from a bottle like normal infants. Five cases are presented, in 1 of which the method was a failure. In no case did injury or irritation of the mucosa result from the use of the plate. It is hoped that this appliance will solve some of the problems of feeding infants with cleft palate and will minimize the diseases of the respiratory tract to which these infants, partially because of the aspiration of fluids, are particularly susceptible. The infants will be given the opportunity to exercise their inherent urge to suckle, which will stimulate growth and development; this, in turn, may reduce the number of operative failures. (Authors' summary.)

†TUBERCULOSIS OF THE HARD PALATE. M. LANGLOIS. Bull. Soc. de pédiat. de Paris. 35:690 (Dec.) 1937.

A lesion developed on the hard palate of an infant 2 months old. The left cervical glands were enlarged. She was admitted to the hospital at the age of 4 months. A biopsy of the hard palate was made and tuberculosis diagnosed. Later, in pus aspirated from a cervical gland, tubercle bacilli were demonstrated. The tuberculin test was positive. No mention is made of a roentgenogram of the chest. The infant died of tuberculosis meningitis following pertussis at the age of 10 months. No contact with any person with open tuberculosis was established. The infant had been fed unpasteurized, unboiled milk from tuberculous cows.

BENJAMIN, Montreal, Canada.

†GARGOYLISM. R. W. B. ELLIS. Proc. Roy. Soc. Med. 31:770 (May) 1938.

Ellis reports the case of a girl aged 1 year and 8 months. She was taken to the hospital on account of mental retardation. She could not sit up alone, made no attempt to stand and could not feed herself, speak or control her excretions. Complete data on the physical examination and all investigations are given in the report, which is illustrated with pictures of the patient. The characteristic features of gargoylism (the peculiar facies, mental deficiency, cranial deformity, corneal opacity, hepatosplenomegaly and kyphosis) were present, and the bone changes though not marked or universal, were those of osteochondrodystrophy. The pituitary fossa did not show the enlargement seen in many cases.

WILLIAMSON, New Orleans.

†CHONDRODYSSTROPHIA FETALIS. M. MEISGEIER, Monatschr. f. Kinderh. 74:110, 1938.

Seven cases are reported, with the usual pathologic anatomic changes. Attention is called to incidental findings, such as hydrocephalus, funnel breast and rickets. In 2 other cases there was what the writer calls borderline involvement; he presents roentgenograms taken in these cases, indicating abortive and atypical forms of the disease, and he labels this condition "achondroplasia fruste."

As regards sterilization of patients with fetal chondrodystrophy, each case must be considered individually.

GERSTLEY, Chicago.

†APHTHOUS STOMATITIS OF POSPISCHILL. H. GOTTRON, Monatschr. f. Kinderh. 74:82, 1938.

Gottron presents the report of a case and photographs of a 2 year old child with severe involvement. He discusses the various theories and offers some superficial scientific evidence to show that herpes simplex, aphthous stomatitis and aphthoid are different manifestations of herpetic infection.

GERSTLEY, Chicago.

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†CONGENITAL HYPERTROPHY OF RIGHT SIDE OF BODY AND LEFT SIDE OF FACE. G. SLOT and P. M. DEVILLE, *Proc. Roy. Soc. Med.* 31:1127 (July) 1938.

The patient was a boy aged 6 years. Measurements are given. The interest of the case is in the crossed distribution of the hypertrophy.

WILLIAMSON, New Orleans.

INVESTIGATIONS OF C VITAMIN STANDARD IN HEALTHY CHILDREN AND IN CHILDREN SUFFERING FROM GINGIVITIS. C. W. HERLITZ. *Acta pediat.* 23:43-78. 1938. (See Nutrition and Metabolism.)

*DENTAL DEFECTS IN CONGENITAL SYPHILIS. BERT G. ANDERSON. *Am. J. Dis. Child.* 57:51-57. 1939.

The dental abnormalities having the characteristics described in the report are considered to be of congenital syphilitic origin. An attempt is made to view the dental structure as a whole and to observe what portions of it or what groups of teeth are involved rather than to give minute, detailed descriptions of individual teeth that may be diagnostic of congenital syphilis. When examined in this manner, the dental defects associated with congenital syphilis stand out more clearly. In each of the patients the 8 incisors, 4 cuspids and 4 permanent molars were involved whenever they were present. The most characteristic features of the abnormality seen clinically were (1) the undersized, malformed appearance of the teeth, (2) the contracted appearance of the mamillons, marginal ridges and cusps of the incisors, cuspids and molars and (3) a peculiar open bite malocclusion. Defects of the eyes, ears and teeth were found in 2 of the 8 patients with congenital syphilis which was untreated during the period of development of the affected teeth. (Author's summary.)

Physiology

THE PHYSIOLOGY OF MASTICATION. MEYER KLATSKY. *Am. J. Orthodont. & Oral Surg.* 25:205 (March) 1939.

Illustrated by a movie this paper was prepared to show the influence of the physical properties of foods on human masticatory function. The more fibrous a food is, the longer mastication must be continued to render the food suitable for deglutition: the harder a food is the more powerful the bite must be. But the state of hardness must not exceed the limit of edibility of foods.

LEWIS, Dayton.

Roentgenology

BITE WINGS PRELIMINARY TO ORTHODONTIC TREATMENT. STEPHEN C. HOPKINS. *Am. J. Orthodont. & Oral Surg.* 25:354 (April) 1939.

Bite wing x-ray pictures in addition to full mouth pictures are taken for all the author's patients before treatment is started. He has discovered incipient approximal decay in more than 50% of cases presented for orthodontic treatment between the ages of 11 and 15 years.

LEWIS, Dayton.

THE RELIABILITY OF A METHOD OF ORIENTING SUBJECTS FOR TEMPOROMANDIBULAR ROENTGENOGRAMS. T. D. SPEIDEL and A. S. MAXON. *Am. J. Orthodont. & Oral Surg.* 25:250 (March) 1939.

In this procedure the roentgen tube remains stationary, the film is positioned mechanically, and the orientation of the patient is obtained by means of an adjustable head-positioning device. This arrangement allows the operator to reposition subjects for second roentgenograms with vertical and horizontal deviations from the original positions of less than 2 mm. in 75 per cent of the instances.

LEWIS, Dayton.

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Technic and Metallurgy

A NEW AUTOMATIC STAMPING MACHINE FOR THE CONSTRUCTION OF ORTHODONTIC ATTACHMENTS. M. ALDEN WEINGART. *Am. J. Orthodont. & Oral Surg.*, 25:265 (March) 1939.

Description of a machine for stamping orthodontic attachments such as McCoy open tubes, tie brackets, Ketcham snap hooks and universal brackets.

LEWIS, Dayton.

THE FUNDAMENTAL PRINCIPLES INVOLVED IN THE CONSTRUCTION OF THE LINGUAL AND LABIAL ARCHES. OREN A. OLIVER. *Am. J. Orthodont. & Oral Surg.* 25:342 (April) 1939.

The author states that orthodontics does not have an ideal appliance, but an appliance working in conformity with absolute harmony between normal growth and the stimulation of the supporting tissues would be ideal. Men who employ the lingual arch believe it to be the most comfortable, hygienic, and dependable appliance orthodontists have yet found.

Oliver is an ardent advocate of the lingual arch, and its use in combination with labial arch and auxiliary finger springs.

LEWIS, Dayton.

Temporomandibular Joint

RESECTION OF HYPERTROPHIED CONDYLE. BERCHER and LEPROUST. *La Revue de Stomatologie.* 41:257-262 (April) 1939.

This case report involves a man of 38 years whose condition was diagnosed as hypertrophy of the left mandibular condyle. Clinical symptoms included temporomandibular pain, shifting of mandible to right, open bite in molar region on left side and marked facial asymmetry. Roentgenograms confirmed the clinical diagnosis. Resection of the left condyle established a useful occlusion and was otherwise successful. Histologic examination of the removed fragments revealed only simple hypertrophy. Subsequent examination seven years after reveals a clinically stable and successful result. It was impossible to determine the etiology.

NEWCOMB, Cleveland.

THE RELIABILITY OF A METHOD OF ORIENTING SUBJECTS FOR TEMPOROMANDIBULAR ROENTGENOGRAMS. T. D. SPEIDEL and A. S. MAXON. *Am. J. Orthodont. & Oral Surg.* 25:250 (Mar.) 1939. (See Roentgenology.)

Treatment and Retention

ORTHODONTICS AS AN AID IN REPAIRING A CONGENITAL CLEFT. JOSEPHINE MAY ABELSON. *Am. J. Orthodont. & Oral Surg.* 25:154 (Feb.) 1939.

A case report of a male, twelve years of age, with repaired double harelip and cleft palate.

LEWIS, Dayton.

THE ANALYSIS OF A COMPLICATED CASE UNSUCCESSFULLY TREATED. ROBERT H. W. STRANG. *Am. J. Orthodont. & Oral Surg.* 25:330 (April) 1939. (See Case Analysis and Diagnosis.)

THE TREND OF CLINICAL ORTHODONTICS. LEUMAN M. WAUGH. *Am. J. Orthodont. & Oral Surg.* 25:419 (May) 1939. (See Growth and Development.)

THE TREATMENT OF DECIDUOUS AND MIXED DENTURES. JOHN E. TAYLOR. *Am. J. Orthodont. & Oral Surg.* 25:255 (March) 1939.

Taylor believes entirely too many children under nine years of age are wearing orthodontic appliances. Although he believes some should be treated early, he thinks most cases would be better off if treated from ten to twelve years of age. He claims that in

checking his records he has found that in every case which he has treated early he has had a bimaxillary protraction to contend with in the permanent denture.

Lewis, Dayton.

IS IT FEASIBLE TO CLOSE DIASTEMATA? B. EDWIN ERIKSON. *Am. J. Orthodont. & Oral Surg.* 25:211 (March) 1939.

Two reports of cases with diastemata in which all spaces were closed successfully.

Lewis, Dayton.

OPEN-BITE. CLARE K. MADDEN. *Am. J. Orthodont. & Oral Surg.*, 25:260 (March) 1939.

Two case reports of open bite. The first patient developed an open bite during orthodontic treatment at age 14, but not during treatment at 9 years of age. Second patient had no open bite up to the age of 12 but did develop it at 14 years, though he never wore orthodontic appliances.

Lewis, Dayton.

EVOLUTION, DEVELOPMENT AND APPLICATION OF MYOFUNCTIONAL THERAPY IN ORTHODONTICS. ALFRED PAUL ROGERS. *Am. J. Orthodont. & Oral Surg.* 25:1 (Jan.) 1939.

A historical review of the author's work in the field of myofunctional therapy coupled with his views and experiences of present-day Orthodontia.

Lewis, Dayton.

SURGICAL TREATMENT OF OPEN BITE AND PROGNATHISM. G. GINESTET. *La Revue de Stomatologie.* 41:4-17 (Jan.) 1939.

The surgery described and diagrammed involves a new technic performed under local anesthesia without danger of hemorrhage, which can be executed in half an hour. It also minimized the risk of infection and avoids unpleasant scar formation. Results shown are brilliant.

NEWCOMB, Cleveland.

CASE OF IMPACTED FIRST PERMANENT MOLARS. MABEL J. THOMAS. *Am. J. Orthodont. & Oral Surg.* 25:163 (Feb.) 1939.

This case was featured by the mesial surfaces of the upper first molars being locked under the distal surfaces of the deciduous second molars. Treatment consisted of freeing the first permanent molars and tipping them distally.

Lewis, Dayton.

THE ERUPTION OF AN IMPACTED AND ENCYSTED CANINE. M. R. CHIPMAN. *Am. J. Orthodont. & Oral Surg.* 25:159 (Feb.) 1939. (See Pathology.)

THE BIOCHEMICAL ETIOLOGY AND DIAGNOSIS OF MALOCCLUSION AND THE USE OF MINERALIZATION AND VITAMIN THERAPY IN ORTHODONTIC TREATMENT. S. ALBERT SIGEL. *Am. J. Orthodont. & Oral Surg.* 25:235 (Mar.) 1939. (See Etiology.)

*SOME BIOLOGIC ASPECTS: THEIR IMPLICATIONS AND APPLICATIONS IN ORTHODONTIC PRACTICE. MILO HELLMAN. *Internat. J. Orthodontia* 23:761. 1937.

Hellman discusses the favorable and unfavorable influences of orthodontic appliances on the teeth and surrounding tissues. He believes the result frequently attained is normal occlusion, but whatever else happens, such as increase in size, change in form and alteration in position of the jawbones and the rest of the face is due to conditions over which mechanical devices have no influence and no control. He closes with the statement that while mechanics furnishes the means by which the possibilities of orthodontic practices are realized, biology reveals limitations within which such practices must be confined. (*AJDC*, 56:453.)

FEEDING THE INFANT WITH CLEFT PALATE WITH THE AID OF A DENTAL PLATE. REPORT OF FIVE CASES. J. H. SILLMAN. *Am. J. Dis. Child.* 56:1055-1058. 1938. (See Pathology.)

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