

# Abstracts of Current Literature

## Bacteriology

THE IDENTITY OF AN ANTIBACTERIAL FACTOR IN THE SALIVA OF CERTAIN MAMMALIA. S. LEONARD ROSENTHAL, WALLACE M. McNABB, RAYMOND C. SNYDER. J. A. D. A. 26:1859, Nov. 1939. (See Pathology)

PRESERVATION OF THE TEETH BY CONTROL OF ORAL BACTERIA. JOHN J. MOFFITT. J. A. D. A. 26:1812, Nov. 1939.

Teeth should be cleaned once a month in order to control bacterial invasion of the oral cavity. Case histories are presented showing the types of bacteria present under various conditions. Care must be taken that the organisms do not get in the pulp as a result of continued activity in the dentin after a tooth has been filled, especially under fillings of long duration where the organisms have had much time to work.

"Another indispensable factor in preserving the teeth, which cannot be considered here, is orthodontia. Each tooth should occlude with those of the other arch in exactly the way Nature intended or the natural cleansing mechanism will be interfered with and various abnormal and deleterious conditions will result."

"It is essential for dentists to familiarize themselves with oral bacteria and laboratory technic, because every one of the lesions—recession of the gums, dentinal caries, alveolar abscess, pyorrhea alveolaris—that cause loss of teeth began with an invisible growth that could readily have been discovered with a microscope."

Autogenous vaccine therapy is also advocated under certain conditions of excessive decay.

R. STEADMAN, St. Paul.

## Dental Caries

\*COMPLETE FREEDOM FROM DENTAL CARIES: COMPARATIVE STUDY OF TWENTY-FIVE CHILDREN. H. G. MILLER and D. M. R. CROMBIE. Lancet. 2:131-170, 1939.

In an endeavor to trace some of the grosser causal factors of dental caries, Miller and Crombie examined twenty-five children from 10 to 14 years of age with caries-free mouths and no history of caries in the permanent dentition and compared them with an equal number of children showing gross caries but similar in other respects. They found that certain factors which were apparently associated with freedom from dental caries were the following: (1) good family dental history (not apparently of such significance as good general hygiene and diet), (2) careful infant feeding, especially breast feeding, and, (3) probably above all, absence of severe illness and an early incidence of infectious fever. No difference of present economic status was demonstrable between the two groups, but a point of importance appeared to be that children with bad teeth were often the younger members of a family, whereas those with good teeth were frequently first children. In this series of cases irregular dentition and inadequate oral hygiene did not appear to exercise any unfavorable effect on the degree of freedom from caries. (J. A. M. A. 113:1366)

\*DENTAL CARIES, CARBOHYDRATES AND BACILLUS ACIDOPHILUS. J. D. KING and J. M. CROLL. Brit. D. J. 66:19-24, 1939.

Results do not corroborate Bunting's findings regarding either the existence of a relationship between the incidence of dental caries and the *B. acidophilus* content of saliva or the effects of daily dietary additions of sweets on the disease. (CA, 33:5456)

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\*DENTAL CARIES, VITAMIN D AND MINERAL DEFICIENCIES. GEOFFREY F. TAYLOR and C. D. MARSHALL DAY. Brit. Med. J. 1:919-921, 1939.

A group of children from a district in the Punjab are shown to have severe rickets and a very low incidence of dental caries. Diets deficient in Ca and P and vitamin D and rich in anticalcifying factors do not lead to caries. (CA, 33:5450)

†DIET AND DENTAL CARIES. R. W. BUNTING. New York State J. Med. 39:18, Jan. 1, 1939.

The active destructive agent in dental caries is some form of organic acid formed on the tooth by products of the local fermentation of carbohydrates. The most prominent of bacterial agents is the oral *Lactobacillus acidophilus*. While lack of cleanliness may produce caries, it is not the most important cause. Caries is not associated with either a low calcium or a low phosphorus intake. Forcing of viosterol, calcium and phosphorus, and vitamin C fails to reduce caries. The most important etiologic factor is acid-producing bacteria, and the most effective method of reducing dental caries is to eliminate sugar and starch from the diet. In Michigan a clinic for the control of caries is now in operation, where bacterial counts of oral *L. acidophilus* are made on samples of saliva sent to the laboratory.

AIKMAN, Rochester, N.Y.

\*DOMESTIC WATER AND DENTAL CARIES, INCLUDING CERTAIN EPIDEMIOLOGICAL ASPECTS OF ORAL *L. ACIDOPHILUS*. H. TRENDLEY DEAN, PHILIP JAY, FRANCIS A. ARNOLD, JR., FRANK J. MCCLURE and ELIAS ELVOVE. Pub. Health Repts. 54: 862-888, 1939.

Two Illinois cities (Galesburg and Monmouth), using a domestic water closely similar in source and mineral composition, show similarly low dental caries rates, 201 and 205 carious permanent teeth per 100 children, respectively. Two nearby cities (Macomb and Quincy), using a domestic water dissimilar in type and mineral composition from that of Galesburg and Monmouth, are characterized by dental caries rates double and treble those observed at Galesburg and Monmouth. The Galesburg and Monmouth water supplies contain 1.8 and 1.7 parts per million of fluoride (F), the Macomb and Quincy waters only 0.2 part per million. While it seems reasonable to associate the low dental caries rates with the higher fluoride content of the communal water supplies, the possibility that the composition of the domestic waters, other than the fluorine content, may be a factor should not be overlooked. Using the approximal surfaces of the four superior incisors as a basis of measurement, there was 16 times as much interproximal caries in Macomb and Quincy as in Galesburg and Monmouth. The amount of *L. acidophilus* in the saliva closely reflected the difference in the dental caries rates between Galesburg and Quincy. Bacteriological studies were not made at Monmouth and Macomb mainly because of the smaller number of children available for study in these two cities. The quantity of amylase secreted in the saliva disclosed no group population differences between Galesburg and Quincy. From an epidemiological standpoint, it is difficult to ascribe these differences to any cause other than the common water supply. (Authors' Summary)

EVALUATIONAL DISORDERS AND CARIES—SEMANTOGENIC SYMPTOMS. L. G. BARRETT. J. A. D. A. 26:1819, Nov. 1939.

"Those who may be interested in observing this relation to caries, and incidentally in improving the dentist-patient working relation to one of pleasure, have at their disposal the following symptomatology of semantogenic disorders." The following are powerful factors in caries: "1. Identifications. 2. Allness. 3. Hypertonicity. 4. 'Undelayed' reactions." Each of these four is explained in the article. This is on the basis of Count Korzybski's study of Semantics. "Later, coordination with the patient's dental record may be made, and then treatment from this general organism-as-a-whole approach may be given by a few interested students."

†INFLUENCE OF METABOLISM ON TEETH. J. O. MCCALL and F. KRASNOW. J. Pediat. 13:498, Oct. 1938.

Metabolic factors are considered to have much to do with the cause and control of dental caries. They may influence the incidence of caries in one of two ways: (1) The

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tooth structure may be defective (shown chiefly as hypoplasia of the enamel) because of abnormal metabolism during the period of the formation of the tooth, making it susceptible to what may be called amelolytic influences; (2) current metabolic influences may be at work, expressing themselves as functions of the saliva, which controls largely the environment of the tooth, and possibly through nutrient channels within the tooth. Quantitative analyses of the saliva of persons suffering from caries or erosion and of persons who are caries free indicate that in the presence of erosion the average range of the concentration of hydrogen ion, calcium, magnesium, inorganic phosphate, protein, lipid phosphorus and cholesterol lies entirely beyond that of the same constituents in the saliva of normal persons. In persons with active caries variations from the normal were found to be fewer, non-overlapping figures appearing only for the concentration of hydrogen ion, magnesium, lipid phosphorus and cholesterol. The results imply a tendency toward that type of derangement often associated with acidic states in the body. The authors believe that the variations noted in the saliva in different oral conditions indicate that the condition of the teeth is associated not with calcium metabolism alone but with several specific metabolisms on which the general metabolism depends and that dental health is closely related to the health and life of the body as a whole. A case is presented in which aberrant salivary values were brought within normal range by nutritional regulation.

ROUGH, Cincinnati.

†RELATION OF VITAMIN D AND MINERAL DEFICIENCIES TO DENTAL CARIES. G. F. TAYLOR and C. D. M. DAY. Brit. M. J. 1:919, May 6, 1939.

The authors studied a group of children in the northern part of India in order to determine, if possible, the relation of diet, and particularly that of vitamin D, to the incidence of dental caries and marked rickets. In this group they found marked rickets general. They found general caries almost nil and a diet which was practically free from vitamin D, calcium and phosphorus. In another section of India, Lahore, a group of middle class children were studied, and they were on a so-called civilized diet, high in carbohydrates and sugar, and the incidence of caries in these children was much higher than in the children with rickets reported in this paper. The authors feel that "unrefined" foods and types of food which mechanically keep the teeth clean while being eaten have more effect than dietary balance.

ROYSTER, University, Va.

\*RELATIONSHIP BETWEEN VITAMIN C AND DENTAL CARIES. T. SANDBERG and H. DAGULF. Nord. Med. 1:603-606, 1939.

Blood ascorbic acid was estimated in the spring and again in the autumn of 1938, and caries frequency in December 1937 and December 1938. In all, about 200 school children and 36 sanatorium patients were studied. In selected cases saturation tests were made. No correlation was found between the values for blood ascorbic acid and either absolute caries frequency or increase of caries, in the year between the first and second dental examinations. (NAR, 9:195)

\*A SURVEY OF THE CONDITIONS ASSOCIATED WITH IMMUNITY AND SUSCEPTIBILITY TO DENTAL CARIES. N. BENNETT. Brit. Dent. J. 66: 193-210, 1939.

This is an excellent review of the literature dealing with the incidence of dental caries in both ancient and modern, primitive and civilized races. (NAR, 9:202)

\*THE TEETH IN DIABETES—A PROBLEM IN NUTRITION. E. P. RALLI. Ann. Dentistry 5:129-140, 1938. (NAR, 9:207)

\*VITAMINS AND DENTAL CARIES. M. MELLANBY and J. D. KING. Ergebn. Vitamin-u. Hormonforsch. 2:1-54, 1939. (NAR, 9:203)

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## Dental Hygiene and Public Health

\*DENTAL PROGRAMS SPONSORED BY HEALTH AGENCIES IN 94 SELECTED COUNTIES. JOSEPH W., MOUNTIN and EVELYN FLOOK. Pub. Health Repts. 54:1625-1636, 1939.

## Dentistry and Dental Relations

ORTHODONTIC PROBLEMS WHICH INVOLVE THE OPERATIVE DENTIST. IRA A. LEHMAN. J. A. D. A. 26:1618, Oct. 1939.

The operative dentist is interested in preventive treatment, treatment serviceable to the patient, and treatment in cooperation with an orthodontist, especially in preparation for satisfactory restorative work. The following quotations illustrate the author's viewpoint; ". . . very often the cause of the condition is deep seated and far more involved and intricate than the mere construction and manipulation of an appliance. . . . It requires infinitely more skill and more judgment and greater knowledge to know when and how to use an orthodontic appliance than how to make one.

Several series of models are shown presenting cases: in which the dental arches have grown to perfect relationship; where growth and development were not regular but still ended with normal occlusion; where treatment was necessary; where habits were broken, etc. There is also a discussion of habits, partially impacted first permanent molars, too long retention of deciduous teeth, supernumerary teeth, extraction of deciduous teeth, and illustrations of individual cases.

STEADMAN, St. Paul.

RELATION OF LOST FUNCTION TO PARADONTOSIS. JOHN RAYMOND GILL. J. A. D. A. 26:1520, Sept. 1939.

The deciduous teeth must be retained until the permanent teeth are ready for eruption. Cavities in deciduous teeth must be kept filled to maintain correct tooth dimensions and vitality. The following quotations indicate the author's view of the importance of the deciduous teeth. "They are the agents through which the development of the maxillae and mandible take place." "The retention of deciduous teeth by operative means, even bridge-work, is as important for good function and normal development as is the case in regard to permanent teeth." "Lack of function means loss of a part."

STEADMAN, St. Paul.

## Etiology

CONTRIBUTION TO THE STUDY OF MALFORMATION OF THE FACE AND JAWS IN CRANIO-FACIAL DYSOSTOSIS. PIERRE DE GUNTEN. Revue de Stomatologie, 41:611, Aug. 1939.

Upon making a detailed study of the malformations of the face and jaws of five cases, the author concludes that the malformations may be classed in the syndrome of cranio-facial dysostosis. Atrophy of the maxillae is the most constant morphological character. It is very marked and always symmetrical. The mandible is essentially normal; the teeth show irregularity (this is always symmetrical) and open bite is frequent. The author lays the deformity and singular facial configuration of these cases to the atrophy of the maxillae.

NEWCOMB, Cleveland.

†ETIOLOGY OF TOWER SKULL. A. J. DE LEEUW-AALBERS. Maandschr. v. Kindergeneesk. 8:89, Nov. 1938. (See Pathology)

†FOOD HABITS OF MOTHERS OF MALFORMED CHILDREN. D. P. MURPHY and A. D. BOWES. Am. J. Obst. & Gynec. 37:460, March, 1939. (See Nutrition)

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†OCULAR AND DENTAL MALFORMATIONS AND DISTURBANCES OF PERSONALITY IN TWO BROTHERS WITH HEREDITARY SYPHILIS. G. HEUYER and H. DUCHÈNE. Bull. Soc. de pèdiat. de Paris. 36:100, Feb. 1938. (See Pathology)

## Growth and Development

EXPERIMENTS DEALING WITH FACTORS INFLUENCING THE SHEDDING OF DECIDUOUS TEETH—  
PART I. RADIOGRAPHIC STUDY. H. H. SHAPIRO and WM. M. ROGERS. J. D. Res. 18:73, Feb. 1939.

Since there are no experimental data regarding the accepted theory of resorption, experimental means were devised for testing the validity of the theory of Pressure. Permanent tooth germs of the cat were removed at several stages of their development, before the onset of deciduous root resorption. The germ was removed on one side of the mandible only. The opposite side was used as a control. Observations are based on progressive radiographs. Operative root injury cases were eliminated.

The author concludes that when the developing germ of the permanent canine tooth in the cat is removed the deciduous tooth is shed but root resorption begins at a later time than on the unoperated control side. There is some evidence of a slightly different mechanism of resorption when the pressure factor is eliminated. This is being studied histologically for a later report.

PREWITT, Lexington.

\*INFLUENCE OF CALCIUM AND PHOSPHORUS INTAKE ON TOOTH FORMATION. W. E. GAUNT and J. T. IRVING. J. Psychol. 95:51-52, 1939.

Rats were fed on diets of known Ca and P content with a Ca to P ratio of 1. The results show that with this ratio of Ca to P, only at a level of 0.3 per cent of Ca and P in the diet were histologically sound teeth invariably produced. At levels of 0.08-0.12 per cent the predentin was abnormally wide and vascular inclusions were present. At low levels of Ca and P intake the teeth were formed at the expense of bone. (CA, 33:5045)

NEW IDEAS ON THE CALCIFICATION OF THE FIRST PERMANENT MOLAR. THIBAUT and JOSEPH. La Revue de Stomatologie 41:593, Aug. 1939.

The authors prosecuted their studies by means of histologic, radiographic and a combination of anatomic and radiographic methods. They conclude that the calcification of the first permanent molar does not generally start before birth. A detailed chart is given showing the time of appearance of the centers of calcification for both the mandibular and maxillary first permanent molars.

NEWCOMB, Cleveland.

## Habits

†COORDINATION OF THE SUCKING CENTER AND THE RESPIRATORY CENTER IN THE HUMAN SUCKLING. A. PEIPER. Arch. f. d. ges. Physiol. 240:312, 1938.

Peiper made simultaneous records of respiratory and sucking movements in the human infant. The basic rhythm of the respiratory center in sucklings is slower than that of the sucking center. On intake of food, the sucking movements are first associated with irregular respiration, diminished amplitude of the respiratory movements or even complete inhibition of respiration; eventually, the sucking center forces its rhythm on the respiratory center. Sometimes one observes an after-effect, the respiration continuing in the sucking rhythm after the sucking has ceased.

SPIEGEL, Philadelphia [Arch. Neurol. & Psychiat.]

\*HABITS BELONG TO CHILDREN. C. ANDERSON ALDRICH and MARY M. ALDRICH. Child Study 16:111-113, 132, Feb. 1939.

Recognition of the influence of dynamic factors in determining the course of develop-

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ment requires that we "take the phrase 'habit training' out of its traditional setting, to examine some of the verbiage that has grown up around it, and to recondition it to fit more accurately the reality of human development." Laying stress, for example, on habit training as an end in itself, with no regard for its effect on baby, is an undesirable objective. Similar previously accepted assumptions have been challenged by contemporary research, i.e., the general assumption that habits acquired sooner are necessarily better or the belief that the baby who easily takes on imposed training is necessarily the better baby. We now know, too, that over-conforming children often become serious problems later on. . . . (EA, 4:246)

THE STATUS OF THUMB-SUCKING AND FINGER-SUCKING. LELAND R. JOHNSON. J. A. D. A. 26:1245, Aug. 1939.

A résumé of the history of thumb and finger-sucking is presented. A comparison of the findings of five investigators is shown and the results of a study of 989 orthodontic cases is presented (approximately one-third from private practices and two-thirds from an orthodontic clinic).

In 1930 Samuel Lewis stated: "There is a general tendency for malformations resulting from thumb-sucking to correct themselves if the habit is broken by the time the child is five years of age, but the malformations do not, as a rule, correct themselves if the habit persists." The author states: "In approximately one of every six cases of malocclusion, the habit of thumb-sucking or finger-sucking has been a contributing etiologic factor." In about seven out of ten children the thumb or finger-sucking habit is broken by five years of age, while one in ten may continue the habit over ten years of age. Also about one-quarter had broken the habit by one year or less.

Of 153 malocclusions due to thumb-sucking 50.98 per cent were Class I, 47.7 per cent were Class II, and 1.3 per cent were Class III. There are many different manners of thumb-sucking.

In the deciduous dentition, if normal lip function does not exist or recur after the thumb or finger-sucking habit is broken, the malocclusion (if any present) will not correct itself; but if normal lip function does exist or recur, the malocclusion will tend to correct itself. "Prevention of the habit of thumb-sucking in infancy is advisable."

Mention is made of a palatal bar to break the suction of thumb-sucking in order to eliminate the pleasure. Quotations from Freud and Levy are also presented on this subject.

STEADMAN, St. Paul.

## Histology

NEW IDEAS ON THE CALCIFICATION OF THE FIRST PERMANENT MOLAR. THIBAUT and JOSEPH. La Revue de Stomatologie 41:593, Aug. 1939. (See Growth and Development)

THE ORGANIC CONTINUITY OF THE DENTINE, THE ENAMEL, AND THE EPITHELIAL ATTACHMENT IN DOGS. J. R. TOLLER. Brit. D. J. LXVII:443, Nov. 1939.

This study substantiates the conclusions of E. B. Manley on the organic continuity of the tissues involved. Relatively thick sections were studied and photographed under water by means of reflected light.

NEWCOMB, Cleveland.

## Nutrition and Metabolism

\*DENTAL CARIES, CARBOHYDRATES AND BACILLUS ACIDOPHILUS. J. D. KING and J. M. CROLL. Brit. D. J. 66:19-24, 1939. (See Dental Caries)

†DIET AND DENTAL CARIES. R. W. BUNTING. New York State J. Med. 39:18, Jan. 1, 1939. (See Dental Caries)

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†FOOD HABITS OF MOTHERS OF MALFORMED CHILDREN. D. P. MURPHY and A. D. BOWES. Am. J. Obst. & Gynec. 37:460, March 1939.

Information about the regular food habits of 545 mothers who had given birth to malformed children was obtained, and the following facts were noted as significant:

About 35 per cent of these women took no milk during pregnancy. About 20 per cent took 1 quart (945 cc.) or more of milk daily. About 20 per cent had two servings daily of leafy vegetables, and only 10 per cent reported having from two to four servings daily of other vegetables. Citrus fruits were taken once daily by 18 per cent, and 13 per cent had two servings of other fruit daily. About 25 per cent used too much bread, and only 17 per cent used whole grain bread regularly or often. Excessive use of coffee, tea or alcoholic beverages was not indicated. Approximately 40 per cent had an inadequate diet when pregnant with their malformed children. Anemia was twice as frequent in those mothers whose diets were inadequate. Anemia occurred in the women who gave birth to congenitally malformed children four times as often as in a control series. The observations offer no proof that an inadequate diet or that anemia is a predisposing factor in the occurrence of congenital malformations. However, both characteristics were observed with unusual frequency.

ARENA, Durham, N.C.

\*INFLUENCE OF CALCIUM AND PHOSPHORUS INTAKE ON TOOTH FORMATION. W. E. GAUNT and J. T. IRVING. J. Psychol. 95:51-2, 1939. (See Growth and Development)

†INFLUENCE OF METABOLISM ON TEETH. J. O. MCCALL and F. KRASNOW. J. Pediat. 13:498, Oct. 1938. (See Dental Caries)

A STUDY OF THE LOCAL ORAL EFFECT OF DIET ON THE PERIODONTAL TISSUES AND THE GINGIVAL CAPILLARY STRUCTURE. RUDOLPH H. PELZER. J. A. D. A. 27:13, Jan. 1940. (See Pathology)

\*THE TEETH IN DIABETES—A PROBLEM IN NUTRITION. E. P. RALLI. Ann. Dentistry. 5:129-40, 1938. (NAR, 9:207) (See Dental Caries)

VITAMIN A AND B DEFICIENCY—AN ETIOLOGIC FACTOR IN ACUTE, SUBACUTE AND CHRONIC VINCENT'S INFECTION AND OTHER DENTAL CONDITIONS. J. A. SINCLAIR. J. A. D. A. 26:1611, Oct. 1939.

The paper contains a review of some of the literature on deficiencies of vitamins A and B; also their diagnostic symptoms. The author says, "In advanced pyorrhea accompanying vitamin-A deficiency, there is no drifting of the teeth, traumatic occlusion is not outstanding and bleeding of the gums is slight if present at all. These conditions are the opposite to those found in vitamin-C deficiency where drifting of the teeth and bleeding of the gums and mucous membrane are noted." He believes subclinical avitaminosis is often unrecognized because of the lack of evident symptoms.

STEADMAN, St. Paul.

## Pathology

†ACRODYNIA WITH GANGRENE OF HANDS AND FEET. C. H. VERBOOM. Nederl. tijdschr. v. geneesk. 83:1362, March 25, 1939.

After a review of the complications occasionally found in acrodynia (shedding of teeth, intussusception, pneumonia, gangrene of the nose and limbs), Verboom records a case. A girl aged 3 years showed, at the onset of the disease, an extensive scaly and itching exanthem on the trunk. Subsequently there supervened shedding of the teeth, necrosis of the oral mucous membrane and extensive gangrene of the hands and feet. The child died seven weeks after the onset of the disease.

VAN CREVELD, Amsterdam, Netherlands.

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†CARE AND TREATMENT OF CHILDREN WITH CLEFT PALATE AND HARELIP. E. EDBERG. Svenska läk.-tidning. 35:2171, Dec. 30, 1938.

Congenital malformation of the lips and the palate is a recessive hereditary disease. Direct inheritance was demonstrated in 15 per cent of cases. Several siblings may suffer from the disease in different variations if the heredity is present on both the paternal and the maternal side. Sterilization has hitherto never been performed. Boys are more predisposed than girls; of 489 patients, 58 per cent were boys. In 67 per cent the malformation was localized on the left side. More than 50 per cent of the patients suffered from total deformity. It is considered that there is 1 case of this malformation in every 1,000 births. Six of the patients were twins. There are often other types of malformation present. Imbecility is rare, but many children with cleft palate (26 per cent) are admitted to classes for dumb children because of a disorder of speech and deafness. Operation on the lips is recommended from the third month on. The palate ought to be operated on at 2 to 3 years of age. Many patients need prosthetic treatment after operation, and cooperation with the dentist and the orthodontist is necessary. The treatment of the malformation should be confined to a few centers where a trained surgeon specializes in this disease and where cooperation with the dentist and the orthodontist can be assured.

WALLGREN, Göteborg, Sweden.

†A CASE OF NOMA WITH RECOVERY FOLLOWING ADMINISTRATION OF QUININE. ILCHENKO. Vrach. delo 20:151, 1938.

The noma occurred in an 8 year old girl in the course of influenzal pneumonia and was so extensive that the surgeons refused to undertake any operative procedure. In view of the grave prognosis given, the parents decided to take the child home. Ilchenko, however, was able to administer to her before her discharge two injections of a 10 per cent solution of quinine in doses of 3 cc. each. A mouth wash of potassium permanganate solution was likewise recommended. Two weeks later the child came to the clinic completely recovered. The author, not having had the opportunity to try this form of therapy in a larger series of cases, urges other physicians to investigate along this line.

BODER, Los Angeles.

†CONGENITAL DEFORMITIES OF THE SKELETON. I. BESZDIEK. Monatschr. f. Kinderh. 76:305, Dec. 1938.

Beszdiek reports on 3 children with decided skeletal deformities and gives roentgenograms. Two of the children were siblings. Their deformities were classified as dysostosis multiplex. The condition of the third child could not be diagnosed. The pictures show generalized hyperplastic change in the metaphyses of the long bones, ribs and also some of the shorter bones, as the vertebrae and shoulder blades. The patient showed other deformities, such as cleft palate, hernia and partial cryptorchidism.

GERSTLEY, Chicago.

CONTRIBUTION TO THE STUDY OF MALFORMATION OF THE FACE AND JAWS IN CRANIO-FACIAL DYSTOSTOSIS. PIERRE DE GUNTEN. La Revue de Stomatologie 41:611, Aug. 1939. (See Etiology)

†ETIOLOGY OF TOWER SKULL. A. J. DE VEEUW-AALBERS. Maandschr. v. Kindergeneesk. 8:89, Nov. 1938.

This is a discussion of the different theories as to the etiology of turriccephaly and a description of the anomaly as observed in an 8 year old girl with a primary cerebral lesion. The latter must be regarded as the cause of the deviation in the form of the skull.

VAN CREVELD, Amsterdam, Netherlands.

HEREDITARY OPALESCENT DENTIN II. GENERAL AND ORAL CLINICAL STUDIES. HAROLD C. HODGE, SIDNEY B. FINN, G. B. LOSE, F. S. GACHET, S. H. BASSETT. J. A. D. A. 26:1663, Oct. 1939.

"Hereditary opalescent dentin can be identified clinically by the amber color, increased translucency, tendency of the teeth to fracture and wear away, roentgenograms, decreased root size, absence of pulp chambers, and total or partial absence of canals. The teeth have

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lowered sensitivity to thermal changes. The abnormality is inherited as a dominant characteristic."

STEADMAN, St. Paul.

THE IDENTITY OF AN ANTIBACTERIAL FACTOR IN THE SALIVA OF CERTAIN MAMMALIA. S. LEONARD ROSENTHAL, WALLACE M. McNABB, RAYMOND C. SNYDER. J. A. D. A. 26:1859, Nov. 1939.

The authors conclude that: "1) The saliva of normal animals contains sodium carbonate, which inhibits the motile oral flora of man, but has little effect on the non-motile bacteria. 2) This salt is absent in man and may disappear from individual animals, which then become predisposed to fusospirochetal infection. 3) A laboratory animal suitable for experiments on Vincent's infection must be one whose saliva is normally free from this salt. 4) Solutions of sodium carbonate are of value in the treatment of Vincent's infection."

Healthy animals on their own diets are immune to Vincent's infection as we know it. Undomesticated animals of the Zoological Garden of Philadelphia have "extremely mucinous smears" and are "notable for their low bacterial count in comparison with man, also for the complete absence of motile micro-organisms."

STEADMAN, St. Paul.

†IMPETIGINOUS STOMATITIS. J. NICOLAS, J. ROUSSET and J. RACOUCHOT. Bull. Soc. de dermat. et syph. 45:499, April, 1938.

The authors call attention to pyogenic stomatitis associated with impetigo. Three cases in the same family are cited. The use of 1 per cent methylthionine chloride (methylene blue) and 10 per cent silver nitrate resulted in rapid improvement.

LAYMON, Minneapolis. [Arch. Dermat. & Syph.]

†OCULAR AND DENTAL MALFORMATIONS AND DISTURBANCES OF PERSONALITY IN TWO BROTHERS WITH HEREDITARY SYPHILIS. G. HEUYER and H. DUCHÈNE. Bull. Soc. de pédiat. de Paris 36:100, Feb. 1938.

Two brothers, 14 and 15 years old, each had a congenital coloboma of the iris and abnormality of the teeth. They also had congenital syphilis.

BENJAMIN, Montreal, Canada.

†OPERATIVE TREATMENT OF CLEFT PALATE FROM A SOCIAL AND MEDICAL POINT OF VIEW. E. PERMAN. Svenska läk.-tidning. 35:2025, Dec. 9, 1938.

It is important that the operation for closure of a cleft palate should be performed when the child is 2 years old. The parents should be informed about the necessity to consult a surgeon at that time. In Sweden the state pays for the expenses of the parents in connection with the treatment of cleft palate, and the work is confined to a few hospitals with surgeons especially trained in the technic of such operations. During the last two years Perman has operated (method of Ernst-Axhausen) on 60 children with cleft palate, of whom 32 were older than 3 years. The result was satisfactory in 54. One child died. In the remaining 5 the aperture could not be closed.

WALLGREN, Göteborg, Sweden.

†ORIGIN AND CHARACTERISTICS OF LABIAL AND NASAL ANOMALIES IN PERSONS WITH CONGENITAL CLEFTS. F. BURIAN. Casop. lék. cesk. 76:101-138, Jan. 29; Feb. 5, 1937.

Burian discusses the history, fundamentals, pathogenicity, embryogenesis and plastic anatomy of cleft palate and harelip with the idea of improving esthetically the surgical treatment of these anomalies. The irregular dentition is discussed in detail, and the Brophy controversy about the question of cleft of maldeveloped or cleft of normally developed segments is emphasized. The embryology of the head, face and nose is taken up in detail and illustrated with sketches. Photographs of patients before and after operation are shown.

STULIK, Chicago.

† Reprinted by courtesy of *The American Journal of Diseases of Children*.

†OSTEOMYELITIS OF THE MANDIBLE. A. BARBA INCLÁN. *Cir. ortop. y traumatol.* 4:205, July-Sept. 1936.

The author reports 2 cases of nonodontogenous osteomyelitis of the mandible. In the first, mandibular osteomyelitis followed a furuncle in a boy of 4 years. The histories and the surgical treatment in these cases are described in detail. Orr's method of treatment is generally followed in such instances.

HERRON, Monroe, La.

†OSTEOSARCOMA OF THE SUPERIOR MAXILLA IN CHILDREN. P. ORSINI. *Med. inf.* 10:75, March, 1939.

A boy of 5 years had a rapidly growing tumor of the upper jaw near the left deciduous molars. Exophthalmos resulted, and there were metastases in the pleura and in the abdomen. The child died fifty days after the first symptoms. No histologic or roentgenologic data are given.

HIGGINS, Boston.

A STUDY OF THE LOCAL ORAL EFFECT OF DIET ON THE PERIODONTAL TISSUES AND THE GINGIVAL CAPILLARY STRUCTURE. RUDOLPH H. PELZER. *J. A. D. A.* 27:13, Jan. 1940.

A brief history and explanation of capillaroscopy and the method employed is given; also the technic of gingival capillary photomicrography. Photomicrographs showing normal and abnormal gingival capillaries, as well as the effects of detergent and non-detergent diets on the capillaries, are presented with roentgenograms and photographs of the cases presented.

The author's summary and conclusions include: "1) Normal gingival capillaries, as viewed by capillary microscopy, tend to maintain their posture or tonus at a diameter ranging from 6 to 18 $\mu$  'in vivo,' and with a viewable length of arteriolar and venular capillary limbs ranging from 12 to 48 $\mu$  'in vivo.'" 2) A detergent diet produces: "a) wear of the morsal and proximal surfaces of the teeth; b) a well-developed facial musculature; c) the presence of small medullary spaces and dense trabeculation of the maxillary and mandibular bones; d) little tendency to calculary deposition; e) the presence of well-hornified, resistant gingival tissues; f) low caries index; g) . . . normality of gingival capillaries in number, distribution and tonus." Dilation produced by lack of stimulation, gingival irritants, possible systemic involvement. 3) A soft non-detergent diet produces the converse of the findings shown in 2). 4) "The clinical and pathological findings substantiate the gingival capillary findings in the cases described, evidencing the basic validity of gingival capillaroscopy."

STEADMAN, St. Paul.

VITAMIN A AND B DEFICIENCY—AN ETIOLOGIC FACTOR IN ACUTE, SUBACUTE AND CHRONIC VINCENT'S INFECTION AND OTHER DENTAL CONDITIONS. J. A. SINCLAIR. *J. A. D. A.* 26:1611, Oct. 1939. (See Nutrition and Metabolism)

## Psychology

EXPERIMENTS DEALING WITH FACTORS INFLUENCING THE SHEDDING OF DECIDUOUS TEETH—PART I RADIOGRAPHIC STUDY. H. H. SHAPIRO and WM. M. ROGERS. *J. of D. Res.* 18:73, Feb. 1939. (See Growth and Development)

## Roentgenology

AN ACCURATE METHOD OF DETERMINATION OF ALVEOLAR BONE RESORPTION. JEROME S. CROSBY. *J. A. D. A.* 26:1695, Oct. 1939.

By taking X-rays at different times and comparing the pictures it is possible to determine the amount of alveolar bone resorption by means of the following formula:

$$1 - \frac{A \times B'}{A' \times B} = X.$$

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When A is length of tooth image in first picture, A' is length of tooth image in second picture, B is height of bone in first picture, B' is height of bone in second picture, then X represents the percentage of actual bone change.

STEADMAN, St. Paul.

## Technic and Metallurgy

A SATISFACTORY METHOD OF MAKING AND FILING IMPRESSIONS OF THE ANTERIOR TEETH FOR RECORDS. ROBERT N. HARPER. J. A. D. A. 26:1676, Oct. 1939.

By using a modified tray impressions are taken of the anterior teeth and when poured furnish a small model which can be easily filed.

STEADMAN, St. Paul.

## Treatment and Retention

BITE-PLATES: THEIR INFLUENCE ON THE GROWTH OF THE MANDIBLE. SAMUEL HEMLEY. J. A. D. A. 26:1829, Nov. 1939.

By means of sliding calipers measurements were taken from tooth surfaces to the lower border of the mandible in children under orthodontic treatment with bite-plates, appliances, and without anything. Results showed that with the bite-plate or with the appliances depression of the incisors was infrequent, and if it did occur, as soon as the bite-plate or appliance was removed the teeth returned to their former levels. The molars were appreciably elevated with the use of the bite-plate. Microscopic examination of lower incisors subjected "to a bite-plate for eleven weeks, as well as roentgenographic section before preparation, clearly show no pathological changes in the teeth or investing tissues."

STEADMAN, St. Paul.

TOOTH EXTRACTION IN HEMOPHILIA. CARROLL LA FLEUR BIRCH and FREDERICK F. SNIDER. J. A. D. A. 26:1933, Dec. 1939.

The most satisfactory method for extraction of teeth in hemophilics is by placing a rubber band about the tooth and let it remain; the tooth will automatically be extracted within "4 to 109 days"; usually with no loss of blood. If there is a multi-rooted tooth, the tooth may be split in much a manner that a rubber band can be placed about each root, and thus remove the tooth by each of its roots separately.

STEADMAN, St. Paul.