American Laryngological Association

AMERICAN LARYNGOLOGICAL ASSOCIATION.

FIFTY-FIRST ANNUAL CONGRESS, 20th to 22nd May 1929.

(*Abstracted from Dr Imperatori's Notes by Dr A. Logan Turner.*)

Vitamins in Human and Animal Nutrition.—A symposium on this subject included a general discussion upon the relation of diet to diseases of the lymphoid system, diseases of the air-sinuses and the skeletal bones especially in connection with the bones of the head. Dr Roy Barlow after making a number of laboratory experiments stated that albino rats were used and were fed on various diets deficient in vitamins A, B, C, and D. Microscopical sections showed no changes in the lymphatic tissues. Animals on starvation diet and those fed on excessive fat diet showed no changes. He concluded from these experiments that diet had no effect on the lymphoid system. Further investigation over longer periods of time might possibly alter these observations.

Dr L. W. Dean found that nasal sinus infection might be produced in rats by a diet deficient in vitamin A. Correction of diet in the early stages of sinus infection produced satisfactory results. In later stages it did not. The results secured in infection by a diet rich in vitamin A were satisfactory. When sinus infection was present in the human being, vitamin A diets were important therapeutic procedures.

Dr B. R. Shurly found that many skeletal defects in our school children, decayed and crowded teeth, small sinuses, high arched palate, bony asymmetry and deflections, and congenital enlargement of the thyroid gland might be modified by prenatal care with special attention to a supply of iodine, raw milk, egg yolk, leafy vegetables and orange and tomato juice with irradiated ergosterol to the pregnant and nursing mother.

Dr Bryson Delavan put in a plea for the necessity of a scientific investigation of the causes of hypertrophy of the lymphoid elements of the pharynx, quoting from an editorial article in the *Journal of the American Medical Association:* "A recent Government report estimates that about one-third of all operations since 1924, among the American urban population, were for the removal of tonsils or adenoids. The urgent need for comprehensive statistical studies of the results is apparent." The study of the tonsil had been attempted for many years, but often in a desultory and speculative manner with little practical result except as shown in such pioneer work as that of Dr French, Dr Shambaugh and a few others. What was now demanded was the study of the prevention of the underlying conditions which had given rise to such wide surgical intervention. It was therefore urgently recommended that the same principles be adopted for these purposes of investigation as were being used in the solving of

https://doi.org/10.1017/S0022215100034526 Published online by Cambridge University Press

other great pathological problems, and in particular that the investigation of the basic causes of hypertrophy of the lymphoid elements of the pharynx—hereditary, hygienic, dietetic, climatic and otherwise—be undertaken by a group of highly trained research workers; that for this purpose adequate financial support must be supplied, suitable laboratory facilities provided, and every possible aid given by the medical profession at large. For the successful management of this project there should be a central responsible body, representative of the best talent of the country, the high standing of whose members would impart dignity, intelligence and energetic effort to the work. For the fulfilment of this, no organisation could exert greater influence in bringing about the existence and the success of such a movement than the American Laryngological Association.

The subsequent discussion revealed the fact that a great deal of careful, scientific and clinical investigation would require to be undertaken before reliable information was obtained.

The Use of Diathermy in Laryngology.—The subject was introduced by Dr H. G. Tobey, who described the technique employed. The various high-frequency currents might be used to produce either superficial dehydration or desiccation, cutting or tissue coagulation. Anæsthesia might be either local or general. When the lesion to be treated was well above the cords, local anæsthesia with exposure of the larynx by direct laryngoscopy was the method of choice. As each application of the current did not exceed a few seconds—five to ten—the procedure was easily borne by the patient. Wherever possible of use, the Mosher laryngoscope was preferable to the Jackson for the reason that the open side allowed the electrode to be introduced at an angle and therefore to be more accurately placed.

General anæsthesia was preferable for the treatment of lesions of the cords. In conjunction with this the Lynch suspension was a *sine quâ non.* It required all the skill which one could muster to apply the electrode to the edge or medial border of one cord while properly retracting and protecting the other. Mention had already been made of a weak coagulating current in place of the desiccating current in this situation.

The danger of ether explosion seemed to be entirely obviated by the complete removal of all ether from the vicinity of the patient and waiting at least three minutes before proceeding with the application of the current.

The one outstanding advantage of the method was the soft, pliable elastic scar which resulted.

Observations on Dental Caries as a Contributing Factor in Maxillary Sinusitis.—This subject was contributed by Dr Gordon

https://doi.org/10.1017/S0022215100034526 Published online by Cambridge University Press

Berry. In the previous year, in a paper reporting 152 cases of maxillary sinusitis before the Association, the following table was presented:—

One Hundred and Fifty-two Antrum Cases and their Possible Dental Infectious Origin.

None.	Possible.	Probable.	Proved.
11%	41%	30%	18%

The "none" column gave the number of cases of sinusitis in which all the teeth seemed healthy. The "possible" column carried the cases in which a dead tooth was in the floor of the diseased antrum but in which there was no X-ray or clinical proof of any active dental abscess. Under "probable" cases appeared those in which there was not only a dead tooth but a tooth with abscess in the floor of the antrum, but final proof of the connection between the tooth infection and the sinusitis was still lacking. In the "proved" group were the patients whose sinus infection cleared up after an established dental apical infection had been eliminated from the floor of the diseased antrum.

During the succeeding eleven months, seventy-three more cases of sinusitis had been similarly studied in an effort to check carefully the first estimates. The cases gave the following percentages (without fractions):—

Adult Maxillary Sinusitis—Due to Dental Caries.

	None.	Possible.	Probable.	Proved.	Total.
Acute Forms . .	5	10	4	1	20
Chronic Forms . .	3	23	33	21	80
	8%	33%	37%	22%	100

The cases in which no possible dental connection could be found had decreased from 11 per cent. in the first series to 8 per cent. in the second. If one added the "probable" and "proved" groups in the first series, one found 48 per cent. as the total. To this could fairly be added at least some of the "possible" group of 41 per cent. The second series thus tended to confirm the first estimate that 60 per cent. and possibly 80 per cent. was a conservative estimate for the incidence of dental infections complicating maxillary sinusitis.

In the first series there were nine cases in which the patients were below 18 years of age. In the succeeding eleven months there were eight cases in which the patients were less than 18 years. Individual differences in differentiating in children between suppurative rhinitis and maxillary sinusitis, and the higher incidence of sinus troubles in children in some climates over others, led to the elimination of this confusion (8 cases) from the second series, which showed in the tables only figures for adults.

The same dental transillumination was used for the examination of the paranasal sinuses and of the teeth. In the latter, the rheostatic

https://doi.org/10.1017/S0022215100034526 Published online by Cambridge University Press

current was cut down and shadows cast by diseased tooth roots through the intervening bone of the alveolar process gave evidence of the location and degree of the dental pathological process. The case was then referred to a dental roentgenologist, who by a surface examination, electrical or thermal testing of the existing dental vitality and a roentgenogram, confirmed or denied the suspicions. This quickly done transillumination, though so simple, was also so sensitive that it rarely failed to discover all the bad teeth in the mouth. Perhaps once out of five times it cast suspicion on a tooth that the dental roentgenologist reported healthy.

Four illustrative cases were given. In each case the patient came on account of chronic antrum infection. Each patient supposed the teeth to be all right. In each case the dental transilluminator revealed a tooth in which infection was suggested, just under the floor of the diseased antrum. In each case the X-ray picture showed the tooth to have abscesses. In three of the four an alveolar fistula followed the careful dental extraction. At the time of writing the condition in three cases had completely cleared up, and in the fourth it was improving under little or no treatment other than extraction.

Many other cases might be cited. The conclusion could not be gainsaid that there was a high incidence of dental disease to be found in the floor of the diseased maxillary sinuses which escaped both the dentist and the rhinologist. The fact that of 73 consecutive cases of maxillary sinusitis, 67 showed dead teeth or those with abscesses in the involved sinus floor, did not prove that the sinus infection was dental in origin in each of these cases. But it gave warning of such a possibility, and it furnished evidence that every conscientious rhinologist should familiarise himself with the gross dental pathological process in his cases of sinus disease.

Treatment of Maxillary Sinusitis.—In the discussion on this subject, introduced by Dr James J. King, it was evident that complete agreement had not yet been reached upon a uniform method of dealing with suppuration in this cavity, notwithstanding the thought and time which had been spent over many years upon the treatment of these cases. General agreement was reached as to the necessity of classifying the affection into the acute and chronic cases.

In the former group emphasis was laid by some of the speakers upon the value of confining action merely to treatment of the nasal cavity or cavities. Experience had proved that puncture and irrigation of the sinus might be harmful and that patients treated without it made a better recovery than some of those who had undergone repeated lavage. In this connection Dr Shurly emphasised the value of nasal applications of a 3 per cent. solution of ephedrine, an agent which induced shrinkage of the nasal mucous membrane without the irritation

https://doi.org/10.1017/S0022215100034526 Published online by Cambridge University Press

usually associated with the use of epinephrine. Moreover, ephedrine caused shrinkage of the mucous membrane and turbinals over a much longer period of time than was the case with epinephrine, the duration of its action being from four to six hours. In this way drainage was maintained for a considerable time. Dr McGinnis stressed the value of exercise and fresh air as a useful means of effecting the same result as the application of ephedrine.

Dr F. P. Emerson held the opinion that if the intranasal treatment failed, then an opening should be made into the antrum beneath the inferior turbinal, as this procedure was preferable to repeated puncture with the trocar and cannula. No irrigation should then be practised as this was liable to irritate the mucosa and maintain the discharge. Drainage and ventilation were sufficient.

In the treatment of the chronic case, opinion was divided as to whether interference should be limited to the window resection in the lateral wall of the inferior meatus or should be combined with investigation of the interior of the cavity through an opening in the canine fossa—in other words, the so-called radical operation. Dr Shurly stated that more than 70 per cent. of the chronic infections responded to treatment by the window-resection. Dr J. F. Barnhill, on the other hand, was in favour of inspection of the interior of the sinus in chronic suppuration, and he believed more and more in the efficacy of the radical operation where there was sufficient pathological change present to require an operation.

ABSTRACTS

EAR.

A Hæmangio-Endothelioma of the External Auditory Meatus. A. Bronzini. (*Archivio Italiano di Otologia*, September 1929, p. 590.)

The case recorded is of a man of 40, who complained of deafness in one ear. The external auditory meatus was found to be filled by a skin-covered tumour springing from the depths of the meatus. The meatus was dry. Removal was declined on account of pressure of business; when seen again fourteen months later the condition had not altered. Three years after the first examination the tumour was found to have grown outwards, and was presenting in the concha. It was also found to have invaded the middle ear and the mastoid process. A radical mastoid operation was performed, and apparently all the growth cleared. It proved to be a perithelioma arising in blood vessels. Six months later the deep glands of the neck were found to be invaded

https://doi.org/10.1017/S0022215100034526 Published online by Cambridge University Press