Stato-kinetic Labyrinth.—Cold caloric test (results complicated by presence of varying spontaneous bilateral nystagmus, probably optical). Left; no response. Right; normal responses of vertical and horizontal canals.

Patient otherwise well. No stigmata of nervous degeneration.

The case is shown because: (1) a diagnosis of hysteria is never completely satisfying; (2) it is hoped that suggestions for treatment will be made. Amateur suggestion has been used without effect.

Mr A. R. TWEEDIE said he was only able to make a brief examination of the case, but noted that there was definite objective evidence of advanced middle-ear disease on the right side, and so far as he could judge the patient *did* hear a question. What were the responses to the galvanic and caloric tests?

Mr PETERS said he thought that the right cochlea and posterior labyrinth had been damaged in the original concussion but that the posterior labyrinth had recovered. Then had come the attack of suppuration, which had considerably reduced the hearing. In a rather short examination he had found that a tuning-fork 128 gave four seconds bone-conduction with several tests.

Mr SYDNEY SCOTT said the case gave him the opportunity of demonstrating the value of the "minimal-stimulus test" in rotation. When this patient was rotated slowly through a small angle (10 degrees) to his right, he instantly felt that he was going to his right, while if rotated through the same angle to his left he did not appreciate the movement. The patient was so consistent that he (Mr Scott) concluded that the left vestibular nerve was defunct.

Mr SOMERVILLE HASTINGS (in reply) said he was sorry more time could not be given to this case. The galvanic stimuli had not been worked out. The right ear was normal to the caloric tests. He brought the case because he felt that the deafness on the right side, which came on suddenly after nervous shock, was of functional origin. The man was sent to a neurologist, and every effort made to get back the hearing, but without success.

SECTIONS OF LARYNGOLOGY, MEDICINE AND ODONTOLOGY.

Chairman—Mr HAROLD S. BARWELL.

January 11, 1928.

The Influence of Naso-Oral Sepsis on the Lungs and Gastro-Intestinal Tract. Opening Papers by Mr E. D. D. DAVIS and Dr R. A. YOUNG are published in the *Journal of Laryngology and Otology*, vol. xliii., p. 465, July 1928.

DISCUSSION.

Mr C. A. S. RIDOUT referred to children, sent from the Municipal Tuberculosis Clinic, suffering from general debility, bronchial catarrh, night sweating and enlargement of cervical glands, but in whom no tubercle

https://doi.org/10.1017/S0022215100032242 Published online by Cambridge University Press

bacilli were demonstrable. These children invariably had infected tonsils and adenoids, generally dental caries, and, in some, infection of the maxillary sinuses. Treatment of the oral and nasal sepsis was followed in many of these cases by steady improvement in the children's general condition, thus exemplifying the value of consultation between the physician attached to the tuberculosis clinic and the laryngologist.

The speaker also drew attention to the infective origin of certain gastro-intestinal conditions in which the primary source of the infection could be traced to the teeth or tonsils. He quoted a series of cases of gastric ulcer and appendicitis from the practice of Dr Davis Taylor, in which there was associated naso-oral sepsis, *e.g.*, 64 cases of gastric ulcer in hospital patients, of whom 57 had pyorrhœa and 6 postnasal sepsis.

Dr T. IZOD BENNETT expressed doubt as to whether conclusive proof of the dependence of gastro-intestinal disease on sepsis higher up in the alimentary canal would be obtained for many years to come, but much of the evidence already existing seemed to point so definitely in one direction that a certain amount of dogmatism was justifiable even at the present day. It was clear that bacteria or their toxins could affect the stomach and the lower parts of the intestinal canal either by direct contact through swallowing pus and bacteria or by the pathogenic organisms from the teeth and tonsils entering the blood stream. The former was by no means so frequent a cause of disease as was formerly supposed. In achylia gastrica, in which there was a complete absence of hydrochloric acid, Professor Faber was of the opinion that it bore no causal relationship to open sepsis and the resultant swallowing of bacteria. He (Professor Faber) held the view that the origin of these cases was probably to be found in such diseases as pneumonia, bronchitis or influenza, which set up an interstitial change in the tissues of the stomach, analogous to the changes seen in cirrhosis of the liver or chronic interstitial nephritis, and perhaps like those diseases due to toxins reaching the affected organs by the blood stream. Where, however, achylia already existed, the swallowing of bacteria might lead to consequences of the gravest type. Therefore the elimination of disease in teeth, tonsils, and sinuses was of great practical importance.

The existence of naso-oral foci of infection and the passage of bacteria through the blood stream to the walls of the alimentary canal were regarded by many as the commonest cause of gastric and duodenal ulcer. The speaker quoted figures to show the enormous increase in the incidence of gastric and duodenal ulcer, and asked the question whether it was to be assumed that this greater incidence was due to the increasing prevalence of oral sepsis. He had been impressed with the frequency with which patients with gastric and duodenal ulcer showed no objective signs of oral or nasopharyngeal sepsis except for the presence in their mouths of teeth which had received considerable dental treatment. Teeth were being preserved which formerly would have been extracted on account of infection of the pulp. Were these teeth subsequently free from all sepsis? The filling of previously devitalised and artificially anæsthetised teeth appeared to be contrary to all approved principles governing the surgical treatment of bone disease. Might not this common practice bear some relation to

https://doi.org/10.1017/S0022215100032242 Published online by Cambridge University Press

the increase in the number of cases of gastric ulcer, cholecystitis and appendicitis?

Mr J. G. TURNER said there was no doubt that naso-oral sepsis had an evil influence on both the alimentary and respiratory tracts, and quoted four cases of pyorrhœa in support of his statement. He thought that the evidence of infection of the lungs and bowel by continuity of surface rested on a firmer clinical basis than did that of blood-borne infection. The direct downward spread of a common cold was an example, passing either to the lower air-passages or, in some cases, to the alimentary canal, causing gastric symptoms and associated diarrhœa. He ventured to ask the question whether a man could immunise himself to his own dental sepsis? In the mouth the clinical answer was "No." The tale of dental sepsis in the mouth was one of progressive breakdown of resistance; he doubted whether general resistance made any better stand. He regarded the abandonment of ultra-conservatism in dentistry as an important step.

Mr ARTHUR BULLEID dealt with the bacteriological side of the various pathogenic lesions of the naso-oral mucosa. In order to state definitely that disease was present, it was essential to diagnose the condition clinically and then to associate the organisms isolated in culture with it by tests for pathogenicity. Unless serological tests with the patient's serum were carried out on the organisms isolated from the lesion under review, it was quite impossible to arrive at any definite conclusion as to their pathogenic rôle. Even then proof was not always conclusive or convincing. The difficulties in the investigation were obvious and the preliminary technique of sterilisation of the surface of tissues, to avoid extraneous mouth contamination, was of the utmost importance.

Dr P. WATSON-WILLIAMS emphasised the necessity of recognising the chronic, latent, relatively mild local manifestations of focal sepsis as a cause of gastro-intestinal or pulmonary infection, as it was this type of case that caused the infection in these situations. The history of the case should be investigated over a number of years as it might reveal indications of a constantly recurring, infective condition. He believed that the enormous increase in cases of gastric ulcer and appendicitis since 1889, a year which marked the appearance of influenza as an epidemic in this country, was due to influenza, the same cause which had increased the cases of accessory sinus inflammation.

Dr E. J. STOLKIND asserted that although dental sepsis might affect the general health unfavourably, there was no evidence that it produced any disease of the lungs or gastro-intestinal tract. He was unable to find in literature a single case in which there was proof that gastric or duodenal ulcer, appendicitis, ulcerative colitis or pulmonary disease had been caused by gingivitis, pyorrhœa, or abscess of the teeth. Whatever conclusions might be drawn from experiments on rabbits, the greatest reserve must be exercised in applying the results of such investigations to human beings. Therefore direct research was of great importance.

Sir JAMES DUNDAS-GRANT laid stress upon the necessity of nasal examination and treatment in certain pathological conditions of the larynx. He believed that mucopus from the nasal accessory sinuses could be

https://doi.org/10.1017/S0022215100032242 Published online by Cambridge University Press

inhaled into the larynx, and extraordinary improvement in the condition of the larynx would follow cleansing of the nose.

Mr T. A. CLARKE had seen oral and nasal sepsis cause dysphagia of a spasmodic character.

Mr A. F. MACCALLAN recognised dental sepsis, tonsillar abscess, and intestinal sepsis as causes which induced a weakening of the patient's resistance manifested by certain signs in the eye. These patients had frequently normal vision, but changes were found in the eyes which pointed to the presence of sepsis somewhere.

Dr WILLIAM HILL said the rhinologist did not find in everyday practice that his patients were conspicuously suffering from respiratory affections, and he inferred from this that the conditions under discussion were not frequently the result of marked focal infection in the nose. He was still sceptical as to the part played by infections which were non-suppurative.

Mr CYRIL HORSFORD considered that a large number of gastro-intestinal and pulmonary cases depended directly upon nose and throat disease.

ABSTRACTS

THE EAR.

The Osiso as a Phonoscope for the Deaf. JOSEPH W. LEGG. (*The Laryngoscope*, August 1927.)

The oscillograph is an instrument capable of recording instantaneous values of electric currents and has been known for more than a generation. The Osiso is an extremely portable and highly efficient oscillograph. It is to the older forms of oscillographs what the kodak is to the old wet-plate cameras. The instrument was developed primarily for studying alternating currents in power lines. The Osiso is six inches wide, nine inches high and ten inches long. The whole outfit, including the motor-driven viewing attachment and the phonoscope distributor, weighs but 14 pounds. It has a multiple wave-distributor which makes it possible to project four waves of speech, side by side, so that no two waves conflict. The instrument is so constructed that the instructor can talk into one microphone and the deaf pupil into another, so that each may see both wave forms, apparently simultaneously, side by side.

The Osiso should make it possible for the deaf child to improve his speech, and possibly to learn to receive speech by sight over the telephone or radio. The deaf child can learn to reach and hold the exact pitch of the instructor's voice; expression, or emphasis, can be

https://doi.org/10.1017/S0022215100032242 Published online by Cambridge University Press