prominent and large lower jaw. His test swallowing of air involved a big movement, but he performed it without difficulty. He pointed out, quite truthfully, that his palate was anaesthetic to a normally adequate stimulus. When he was given a glass of water he held it to his mouth, tilted it a lot, made much play with lip movements, got red in the face, and swallowed small quantities with much apparent effort.

True to type, there were other symptoms behind the presenting one. The patient readily volunteered that he "wanted to confess to fear"; he had struggled against it since the age of 11. Before that time he had been fearless, especially in fighting, which he used to enjoy. From kindergarten days he had always fought upon the assumption that he would win. But at 11 he was involved in two fierce fights in the school wash-house. In the first the other boy did not wish to fight but A. B. did. The enemy fought very pluckily, but A. B. worked himself into a "tremendous fury" and at the end the other boy was "a nasty sight." In the second fight A. B. early received a glancing blow on the face near the jaw. Suddenly he felt he must run away or he would be "knocked to pulp." He acted on the impulse, and since then had never been able to hurt anyone or to stand anything approaching a row. Later on, as an adult, unreasonable fear had become attached to car-driving, cliff-climbing, and other adventures in which he forced himself to accompany an "utterly fearless" fiancée. Above all, he feared the occurrence of a situation where honour demanded that he should fight—e.g., an insult offered to his young lady.

A. B.'s interests were connected with refined city life. He was sociable, friendly, and humorous, and a Sunday-school superintendent. He described himself as likely to be a "perfect curate," and this occupation he has since adopted. But into his developing ideas about people there had crept an observant but peculiar interest in physiognomy. In his own mind he classified people into two types according to the shape of their jaws. Men or women of one, which he called the "aggressive" (meaning successfully aggressive) or "leader" type, had vertical ascending ramus to their mandibles and receding lower jaws with the upper front teeth more prominent than the lower. He held that, in contrast, a backward-sloping vertical ramus, prominent lower jaw, and protruding lower teeth, together with a small mouth, "caused" a recessive weakness of character. This "non-leader" type, into which the patient himself exactly fitted, also had thin lips and a small and quiet swallow, as opposed to the large mouth, full lips, large and noisy swallow of "leaders, children, and natural people." His fiancée was in this favoured category.

School associations were taken first. They led A. B. to remember an earlier incident in the school wash-house. The school bully had been publicly ducked in front of a yelling crowd, and "nearly drowned." He had been frightened by the sight itself and by the "lynching atmosphere." By free association from this sight A. B. next recaptured early fears of asphyxia—e.g., when a cushion was held over his face as a child and in an attack of whooping-cough. He was an only child. His mother (of "leader" type) had clouted him, his father (a "non-leader") grumbled and drank, and there were constant difficulties between the parents throughout his upbringing. Some alarming fantasies of drunken men hitting women, while he stood by terrified and powerless to intervene, led him to the recollection of actual attacks of fury with his father for upsetting his mother and making her cry. He had wanted to hit him.

A return to considering his contemporary fears, and especially the question, "Why could he never attack?" led him suddenly to the conviction that he had always felt that a blow on his jaw would be fatal. "They'd catch me there. And my jaw is so thin!" The discovery that his cowardice was due to an *imagined* inferiority increased his assurance; and A. B. now began to develop the themes, "If Father had only trained me I'd have been able to take care of myself," and, "Fighting is not bad fun if you're built that way." With some difficulty he managed to face in imagination the possibility of "administering physical correction in an extreme case on behalf of a lady." Then, partly freed from fear of disaster and spurred to a just cause, he imagined himself weighing in more heavily. With increasing gusto he went through the motions of buffeting a foe, to the accompaniment of appropriate remarks from an imagined audience: "Bravo, sir! Nice uppercut!" In the midst of this exercise he suddenly became very excited and exclaimed that something was broken. He had hit his opponent right on the point of the jaw. Immediately he saw a conservatory in which his father sat with his mother upon his knee. It was a well-remembered photograph from the family album, with Mummy in her long skirts that he used to peep under and a blouse with bones in the neck, and Daddy tired and retiring, "like an undeveloped twig, with his kindness and temper, lack of discipline with me and heavy-handedness with her." He was surprised they were so intimate.

At this point in his treatment there was a considerable change in his contemporary attitudes. With awkward colleagues he now required prayer to maintain his calm. He spat out aggressive remarks and then prayed for humility. He was no longer afraid

of physical consequences: the issue now was between passion and restraining principle. In the following session he disposed of an imaginary aggressor against his fiancée with mixed feelings of hatred and liking of the undertaking. To his intense satisfaction a return blow on his own "Achilles heel," the jaw, did not seem to hurt him. Then came a second crucial analytic hour. Feeling that "honour would attach to it," and with some reassurance from me about the physical effects, he first slapped in the face a man who was insulting his fiancée, and then—"Oh! I hate doing this"—went for a burglar who was hitting his mother, smashed his head with a poker, and throttled him. While he was trying in vain to see "the real cause" of his anger, his mother's assailant changed into a drunken man. He struck at him wildly, pulled his hair, sobbed, and then hit him crash on the jaw, nose, and mouth. Asked to see the face of his adversary, he found he could not, because it had a "Guy Fawkes mask on." The scene was repeated by request, and this time the "blinding rage" was absent "unless he does something extreme, such as jump on her." Then, "Oh! I can get it against Father! Oh! don't make me do that! I hit him, smash him to pulp, there, where Mother had phlebitis when I was 24." He lay on the couch and sparrowed away in mid-air, while his exclamations reached a climax of excitement and tears.

The case did not require to be taken much further into "deep" analysis. At succeeding sessions A. B. discovered, behind his own aggressiveness, fears that his father would in his turn attack him. He imagined himself a baby and his father lurching against him "as if in a sudden impulse of anger." Again, as quite a young child he had got a fish-bone stuck in his throat, and his father had apparently held his head under the tap as a remedy ("He might go on and I'd be powerless to stop him"). In reliving the incident he felt frustrated, hopeless, then acquiescent. Besides thus being at once an object and a source of aggressiveness, his father was associated with the forbidding of all pleasure. He had emphasized every risk in life, deliberately those of hitting and drinking (e.g., from public fountains), and by unintentional implication all those attendant upon personal desires. Oral pleasures had always been valued highly by this patient. Beneath his resentments against his father was much love for him, with many happy memories. But his father had been inferior in character to his mother, and A. B., with his weak character, deceptive jaw, and erring mouth, resembled his father.

The first beneficial effects of recapturing his "death wish" against his father was that A. B. developed a new efficiency at squash rackets. But after tracing all his fears to his complicated relations with his father—resentment, jealousy, identification in type, and underlying love—he felt that he could swallow as well as hit, and that, at least in the latter pleasure, there were few restrictions to the indulgence of his adult desires. He thereupon drank water without difficulty; and shortly afterwards he drank beer readily enough at his pre-marital bachelor celebrations.

A short review of the differences between adult and childhood aims closed the analysis at the 40th session. A. B. threw off the legacy with which the inability of his real father to lead him and to forgive and discipline his passions had left him. He was able to meet his adult requirements through a revaluation of aim and a reliance upon that "something more than Father" which chimed with his religious convictions.

Medical Memoranda

An Unusual Diphtheria Infection

Diphtheria infection of the mouth, anus, and genitals is not common, and its occurrence as a complication of childbirth and the puerperium must be rare. Faucial diphtheria in the newborn appears to be even more unusual. Rolleston (1939) was able to collect 12 cases (including only one personal case) of faucial diphtheria in the first two months of life. A clinical sequence of those two rarities is herewith recorded.

CASE HISTORY

Mrs. A., aged 24, was admitted to Thornton Isolation Hospital at 1.30 a.m. on July 29, 1941; temperature 101° F., pulse 144, respirations 28. She was extremely exhausted and pale, and looked gravely ill. She had been in poor health for some time. About July 26 she began to have discomfort in the mouth, followed by difficulty in swallowing and discomfort at the anus on the 27th. She was confined on July 28. Examination revealed an extensive thick grey membrane firmly adherent to the floor of the mouth, extending from the root of the tongue forward to the edentulous lower gum and also lining the sulcus between the gum and lower lip. The throat was acutely inflamed but showed no membrane. The submaxillary and submental glands were severely swollen. The anus and an area within a 2-in. radius were acutely inflamed and covered with thin grey slough or membrane. The membrane could be easily removed with a swab, leaving a raw wound similar to a burn a few days old. On each side of the vulva in the sulcus between the labium majus

and labium minus there were raised indurated areas of inflammation about 1 in. by 1½ in. covered with thin grey adherent membrane. Smears taken from the mouth showed no evidence of Vincent's angina. Swabs and pieces of membrane were later reported to reveal the presence of the true diphtheria bacillus.

At the time of admission 48,000 units of diphtheria antitoxin were given intravenously. On July 31 she was still dangerously ill. The buccal membrane was loosening. There was an area of deep inflammation in the right buttock. The vulvar membrane had now extended into the vagina and over the urethral meatus. There was retention of urine. Sulphanilamide 0.5 g. was given four-hourly and one pint of glucose and saline intravenously. On Aug. 5 she was still desperately ill, though the membrane in mouth and vulva had now cleared. She was given a transfusion of 18 oz. of citrated blood. Henceforth she improved steadily. The vulva did not heal until Aug. 18; the urine was not free from albumin until the 28th; her temperature did not settle until Sept. 9, and her pulse rate did not remain below 100 per minute until Sept. 15. There were no nervous complications. She was allowed up on Sept. 19 and was discharged on Sept. 22. Large doses of vitamins B and C and ferrous sulphate were given from the first week.

Mrs. A.'s baby, aged 7 days, male, was admitted on Aug. 4, 1941, with a history of nasal discharge since Aug. 3. On admission at 5 p.m. the baby's general health was fairly good, temperature 98° F. There was a napkin rash on the buttocks. The baby had a purulent nasal discharge and both tonsils were covered by white membrane. The cervical glands were slightly enlarged. 8,000 units of diphtheria antitoxin were given intramuscularly. A throat swab and a nasal swab each gave a culture of the true diphtheria bacillus of intermediate type. The throat was not clear of membrane till Aug. 6, and throat swabs were negative during the third week. In spite of the absence of nasal discharge from the second week, negative swabs from the nose were not obtained till Sept. 14. Apart from an intercurrent bronchitis on Aug. 30, which cleared in three days with sulphapyridine, the baby thrived, and was discharged on Sept. 16, having gained 2 lb. while in hospital.

A few days after the baby was admitted its aunt, aged 30, was also admitted suffering from faucial diphtheria. She gave a history of direct contact with the baby, and her infection also was of the intermediate type. She made an uneventful recovery.

Thornton, Fife.

JAMES B. FLEMING, M.D.

REFERENCE

Rollleston, J. D., and Ronaldson, D. W. (1940). *Acute Infectious Diseases*, 3rd ed., London.

Mastoiditis without Middle-ear Signs

The following case may be thought interesting enough to merit publication:

A girl aged 6 came to hospital on May 18, 1943, with a letter from her family doctor stating that she had had her tonsils and adenoids removed six weeks before, had had an attack of measles two weeks before, and that there was now a slight swelling behind the left ear.

Examination of the tympanic membrane showed that it was white and that the malleus was not even injected. A slight swelling was present behind the ear. Her temperature was 99.8° F. On May 19 I made an incision over the mastoid process and found the subcutaneous tissue much increased in thickness. I then performed a mastoid operation, dealing only with the mastoid and not touching the middle ear, but removing the bridge of bone over the external semicircular canal. On removing the bone over the antrum thick yellow pus flowed out in profusion. The bone over the dura in the upper and posterior angle of the wound was absent, and the dura itself was covered with granulation tissue. Further removal of bone showed that the cells of the mastoid down to the tip were full of thick pus. The bone over the lateral sinus was removed, and the lateral sinus was found to be normal; there was no pus in the middle ear. I treated the cavity with 1 in 20 carbolic acid followed by industrial alcohol, and then filled the wound with sulphacetamide (albacid) cream. Undermining the skin so that the thick subcutaneous tissue could fall into the wound, I sutured the skin completely except for a small aperture at the lower angle, into which I inserted a long and a short drainage tube.

The after-treatment consisted of the injection of 2 c.cm. of mercurochrome 5% in 20% alcohol four-hourly for three days, and acriviolet 1% in 20% alcohol four-hourly for one day, the tubes being removed on the fifth day. Sulphanilamide was given four-hourly every day till June 1, with one Benerva vitamin B₁ tablet, and half a teaspoonful of sodium bicarbonate, on account of the absence of bone over the dura, which was covered with granulations. After the tubes were removed the fistula was dressed with sulphacetamide paste and the wound was strapped once a day, and the patient was given six ascorbic acid tablets daily.

The evening temperature after the operation was the same as on admission (99.8°). On the second and third evenings it was 99° F., and during the rest of her stay in hospital was normal. She made an uneventful recovery, and was discharged on June 15, the twenty-seventh day after the operation.

The only explanation I can give of the normal tympanic membrane and middle ear is the presence of a tympanic dam, which Heath (1919) describes.

W. S. THACKER NEVILLE, M.D. Dub., F.R.C.S. Ed.

REFERENCE

Heath, C. J. (1919). *Diagnosis and Treatment in Cases of Otitis Media*, p. 21. London.

Reviews

LECTURES TO THE LAITY

The March of Medicine. The New York Academy of Medicine Lectures to the Laity, 1942. (Pp. 217. 16s. 6d.) New York: Columbia University Press; London: Oxford University Press, 1943.

The March of Medicine is the title of the seventh series of lectures given to non-medical audiences at the New York Academy of Medicine. The selected subjects—tuberculosis, medical psychology, and nutrition—are precisely those of topical interest to the educated public, and each of them is admirably handled. Dr. J. A. Miller shows clearly how steady has been the advance in knowledge of the pathology and clinical course of tuberculosis, and how intermittent has been the progress in control of the disease. Tuberculin, over-feeding, gold therapy, and various other methods have had their day and failed; solid advance has chiefly been in the environmental factor and the intervention of the surgeon. X rays have greatly aided diagnosis, but have also revealed fresh difficulties in the way of its achievement. Despite all these drawbacks the mortality was steadily falling until the outbreak of this war. That it should be rising again now proves the prime importance of environmental conditions. Yet "tuberculosis still confronts us as a major challenge."

Dr. Tracy Putnam's lecture on the brain and the mind is an interesting criticism by a neurosurgeon of T. H. Huxley's conception of man as a "conscious automaton." He shows that behaviourism yields meagre data compared with those of psychological procedures. Even the naive impressions and judgments of any untrained man are better able to predict what a given normal individual will do in a given complex situation than are the formulas at present deducible from what is known of the physiology and pathology of the brain. And, as Dr. Putnam points out, the exploration of the unconscious mind has still further widened the gap. This is followed by a lecture on the Freudian epoch by Dr. A. A. Brill, himself the pioneer of that epoch in the United States. We all know how Freud's methods started from the study of hysteria; it is less well known how deeply he was influenced by the philosophy of Descartes. As a historical review of Freud's progress this lecture is excellent. Dr. Gesell makes a gallant if unconvincing attempt to explain the genesis of genius, though he has some entertaining comments to make by the way on mental growth in childhood. Dr. Norman Jolliffe has an easier theme in the history of the B vitamins. We are glad to see that he gives the correct date—1906—for the first contribution from Gowland Hopkins on "accessory food factors," as this is so often overlooked in the attention given to his later papers; also that due recognition is given to Casimir Funk's crystallization of the conception of deficiency diseases. Because Funk regarded vitamins as amine bodies, the importance of his generalization is often forgotten.

Dr. A. J. Carlson concludes the series by a talk entitled, "The Newer Knowledge of Nutrition," and asks, "How much of it is knowledge?" He vigorously sifts the grain from the chaff. Like every scientific advance with a popular appeal, the subject of vitamins has been clogged by a good deal of pseudo-science; endocrinology has only recently been able to purge itself of most of such encumbrances. His trenchant criticism of humbug and overstatement, which are apparently more rife in the U.S.A. than in this country, is salutary reading.

QUEEN CHARLOTTE'S TEXTBOOK OF OBSTETRICS

The Queen Charlotte's Textbook of Obstetrics. Sixth edition. By the Members of the Clinical Staff of the Hospital. (Pp. 577; illustrated. 25s.) London: J. and A. Churchill, 1943.

With each new edition this book goes from strength to strength. The authors and publishers are to be congratulated on the excellence of the new and sixth edition, which must rank as one of the best textbooks on midwifery available in English. The teaching is direct, concise, and reasoned. The authors state what they believe and practise and why they do so, and for the most part they teach sound orthodox obstetrical principles and methods. The newly established x-ray department at Queen Charlotte's is directed by Dr. E. Rohan Williams, who has rewritten the radiological section for the