friction was found and by the sixty-second day the area of dullness extended beyond the sternum to the right and beyond the nipple to the left. On this day there was severe cardiac dyspnoea, which was relieved as the area of dullness diminished during the next few days. Murmurs were audible on the sixty-seventh day over the mitral and aortic areas and death resulted suddenly next morning.

Post mortem the posterior layers of the pericardium were found to be totally adherent, as was also the area where at one time paracentesis had been contemplated. The remaining portion of the pericardial sac still contained some excess of fluid (though the dullness had greatly lessened), and the free surface was coated with shaggy fibrinous deposit which was blood-stained in parts. The heart was much dilated and the edge of every valvular cusp on the left side was lined continuously with recent vegetations.

The extent to which the heart was involved in this case appears to be remarkable considering that it is comparatively seldom affected in scarlatinal rheumatism and that the joint symptoms were so trivial. Had the patient recovered the sequelæ would doubtless have been similar to those recorded by Dr. Cabot. I am enabled to report this case by the courtesy of Dr. Robertson, the visiting physician.

Liverpool.

A Mirror

OF

HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

EVELINA HOSPITAL FOR SICK CHILDREN.

A CASE OF ALVEOLAR ABSCESS; DEATH FROM PYÆMIA
IN EIGHT DAYS; NECROPSY.

(Under the care of Dr. F. WILLCOCKS.)

Pyæmia arising from suppuration in connexion with a tooth is probably less rare than is usually thought, as there is great chance that the alveolar suppuration may be overlooked in many cases. When a septic clotting has been started in the veins of the part it may spread in several directions. The case below and the one quoted by Dr. Bolton in his remarks illustrate what is perhaps the most usual direction for it to take, but it is by no means rare for the septic phlebitis to extend from the facial vein into the buccal vein and so into the pterygoid plexus of veins, whence it passes into the cranium through the foramen ovale, and so affects the cavernous sinus. In this way are to be explained the cases in which severe cerebral symptoms arise early. For the notes of the case we are indebted to Dr. Charles Bolton, senior resident medical officer.

The patient was a boy, aged four years, who was taken to the Evelina Hospital for Sick Children at 8 P.M. on April 25th, 1898, on account of "pain in the sides." The mother stated that with the exception of an attack of measles from which he suffered in last December the child had had no previous illness, that for many weeks she had noticed that his teeth were "going very bad," but she took no notice of it as "bad teeth were so common," and that he had made no complaint and had been perfectly well until the evening of April 20th, when he complained of "toothache." His face was a little swollen on the right side on the next day and a medical man who was sent for said that the patient had a gumboil and ordered poultices. On the 22nd his mother took him to a hospital as he seemed to be getting stupid, and here she was told that he had a gumboil and was given some medicine. The child was much worse on the following day and complained of pain in the sides, and another medical man who was called in said that he had pleurisy and ordered poultices to be applied to the chest. He remained in the same condition until he was taken to the Evelina Hospital on the above-mentioned date. When the child was admitted he was drowsy and fretful; the skin was hot and dry and the temperature was 104.6° F. There was a hard, tender, non-fluctuating swelling with an

indefinite outline fixed to the right side of the lower jaw in the molar region; the skin over it was hotter than the skin on the other side was, but it was not red, and several distended veins were seen over the surface. There were a few enlarged glands at the angle of the jaw, but nothing else abnormal could be felt in the neck. The breath was extremely offensive and the tongue was coated with a greyish-brown fur. The crowns of several teeth were completely decayed and the second lower right temporary molar was carious and loose, a brownish purulent discharge oozing from its socket and the surrounding gum and adjacent part of the floor of the mouth being ulcerated. The teeth and gums were partly covered with a dark-coloured, cheesy material, which had a foul odour. The throat was a little congested and was covered with tenacious mucus. With the exception of a few rhonchi on both sides there were no physical signs in the chest. The spleen was easily felt about two fingers' breadth below the left costal margin and the urine contained a trace of albumin. The loose molar was extracted and a quantity of thick brown pus escaped. The teeth and gums were thoroughly cleansed and the mouth and abscess cavity were irrigated every four hours with sanitas lotion. On the 27th the right eyelids were œdematous and the superficial veins were much more distinct than they had been before. The right external jugular vein could be distinctly

Diagrammatic representation of the veins on the right side of the neck. The shaded portions show the extent of the clotting in the various veins. A A, Outline of jaw. tm, Temporo-maxillary vein; atm, the anterior branch; and ptm, the posterior. ej, External jugular; the portion marked off was excised at the operation. ij, The internal jugular. sc, The subclavian. f, The common facial. l, The lingual. r, The ranine.

felt and rolled under the finger; the internal jugular was apparently normal. There was a free discharge of thin offensive fluid from the mouth and creolin lotion (1 in 1000) was substituted for the sanitas on account of the smell. Rhonchi and râles could be heard on both sides of the chest and the skin was a little jaundiced; the liver could not be felt. The general condition was the same as it had been before; the temperature ranged between 104° and 106°, once or twice rising to 107° and falling from 3° to 4° after each tepid sponging; there were no rigors. Mr. Makins was asked to see the case. He exposed the external jugular vein and found it to be yellow in colour and full of pus. He ligatured it below at its junction with the subclavian and above almost as high up as the angle of the jaw and cut out the intervening portion. The internal jugular was next examined and the blood in it was found to be fluid. The wound was then

closed as the child's condition was very bad. The patient died on the following day (the 28th) at 3 P.M.

Necropsy.—At the post-mortem examination the external swelling was found to be chiefly composed of glands matted together. A part of the inner surface of the lower jaw was lying bare in the abscess cavity and the adjacent portion of the floor of the mouth was infiltrated with pus and was in a sloughing condition. The veins on the right side of the neck were dissected out and are represented in the accompanying diagram. The lingual, the ranine, and the lower part of the facial vein, together with the common facial and the anterior and posterior divisions of the temporo-maxillary vein, were full of pus, the external jugular having been removed at the operation. The clotting extended for some distance up the temporo-maxillary and facial veins and also along the branches, some branches of the facial being full of pus. The clot in the internal jugular was beginning to break down and extended for about a quarter of an inch above and below the entrance of the common facial. There were several pyæmic abscesses in both lungs and the spleen was enlarged and soft. There were no abscesses in the other organs.

Remarks by Dr. BOLTON.—There are several points worthy of note in the above case. 1. The first point I will consider is the course taken by the blood-clot. This depends upon the fact that in an alveolar abscess in this situation the probable source of infection is through branches of the facial vein, the veins of the tongue being infected in this particular case on account of the extensive involvement of the floor of the mouth. A glance at the above diagram shows that there was a direct line of pus from the facial into the temporo-maxillary and thence into the external jugular vein, the clot in the internal jugular being more recent, although the common facial vein runs directly into the internal jugular. The probable explanation of this is that the clot in passing down the facial vein towards the internal jugular blocked up the lower end of the anterior division of the temporo-maxillary vein, and the volume of blood in the latter vein, being small in comparison with that in the internal jugular, easily clotted, and so the infection was carried to the external jugular, whereas the large volume of blood flowing in the internal jugular would at first sweep off any clots projecting from the common facial into its lumen and thus clotting in the internal jugular would be delayed. Pyæmia is a very rare result of alveolar abscess; however, many cases have been recorded and Mr. Pedley in his book on Diseases of Children's Teeth quotes one which was published in THE LANCET¹ by Mr. Arbuthnot Lane and which bears a striking resemblance to this case. Mr. Lane's patient was a boy, aged four years, whose illness began with toothache and swelling in connexion with the second left lower temporary molar about a week before admission into hospital. He had jaundice, rigors, and an enlarged liver. The most interesting point is that in Mr. Lane's case the course of the clotting has apparently been exactly the same as described above, the external jugular vein being thrombosed to within half an inch of its lower end and the internal jugular only for a very slight distance. Mr. Lane cut out the external jugular and facial veins and tied the internal jugular above and below the entrance of the common facial with the result that the jaundice and rigors disappeared; however, the child died and at the necropsy abscesses were found in the lungs and liver which had been formed before the operation probably by clots projecting from the common facial into the internal jugular and washed off by the blood-stream. In these cases the clotting must reach the internal jugular very soon after it reaches the temporo-maxillary, hence the earlier the internal jugular is ligatured the greater is the chance of success, and when the external jugular is found to be thrombosed it is probably too late to save the patient by operative interference. The proper treatment in such cases obviously is to examine the facial vein as early as possible and not to wait until there are signs of thrombosis of the external or internal jugular veins. 2. The next point to which I wish to refer is the inattention which is paid to children's teeth not only by the parents but even by members of the medical profession. Of this there are numerous examples daily in the Evelina Hospital: it is an extremely common thing to see children with the majority of their teeth carious, with pus oozing alongside the crowns of two or three, or several minute abscesses pointing through the gum, or probably three or four fangs of temporary teeth

protruding through the gum and causing ulceration of the cheek owing to their non-absorption as a result of caries of the crown. This condition of things is totally disregarded and the teeth are never examined because the children do not complain of pain. This brings me to the third point which this case illustrates. 3. Namely, that it is quite the rule for these children never to have any pain at all. This point is not paid much attention to, but everyone can verify it for himself and he will then be surprised at the amount of destruction which can take place in children's teeth without the occurrence of any pain whatever. 4. In reference to the treatment of alveolar abscess in connexion with temporary teeth there is no doubt that in all cases the proper thing is to extract the tooth at once and not either to apply poultices or to give medicine. The abscess then drains through the socket, the cause of the abscess is removed, and the permanent tooth which lies under the temporary one will probably be saved, which it cannot be if the abscess is allowed to run its course unopened. 5. Another point illustrated here is the fact that there may be most extensive suppuration within the veins and secondary abscesses without any rigors or large variations of temperature. 6. Lastly, the value of creolin in this case as a deodoriser may perhaps deserve mention. At the necropsy, which took place twenty-four hours after death, the mouth smelt very strongly of that drug.

Medical Societies.

OPHTHALMOLOGICAL SOCIETY.

Retinitis Proliferans.—*Edema of the Conjunctiva due to Obstruction of the Lymph Stream.*—*The Pathogenesis of Anterior Polar Cataract.*—*Splinters of Steel removed from the Eye with the Electro Magnet.*—*Value of X Ray Examination in Old Injury to the Eye.*—*Large Fibroma of the Upper Eyelid.*—*Toxic Amblyopia.*—*Exhibition of Cases and Specimens.*

AN ordinary meeting of this society was held on June 9th, Mr. H. R. SWANZY, the President, being in the chair.

Mr. PERCY FLEMMING described a case of Retinitis Proliferans. The specimen was obtained from a man, aged twenty-two years, who died from chronic renal disease. The following appearances were seen on section: the posterior part of the retina was much thickened, folded and detached; a thin membrane stretched across the vitreous cavity from the ora serrata to the posterior part of the retina; another membrane had a similar origin in part, but ended freely about the middle of the vitreous cavity; the space between these membranes and the retina was occupied by blood-clot; there were signs of cyclitis. The chief microscopic appearances were a thickening of the retina and disorganisation of its inner layer, a definite transformation of the clot (as seen in successive sections) into connective tissue membrane with lacunar spaces, and a pulled-out condition of the retina near the ora serrata, resulting in elongation and rupture of Müller's fibres. It was possible to trace a direct continuity between the membranes and the retinal tissue. A review of previously recorded cases was given and the suggestion made that the essential factors of the disease were: (1) hæmorrhage, and (2) an inflammation of the sustentacular tissue of the retina allied to sclerosis of the central nervous system.—Mr. C. WRAY referred to two cases, one of a man, aged sixty-eight years, with glycosuria, who exhibited detachment of retina and retinitis proliferans in the right eye and vitreous hæmorrhage and a vascular formation from the optic disc resembling the skeleton of a leaf in the left. There was no necropsy. The other, also a man, aged thirty-five years, with a similar condition of the vitreous, detachment of the retina, whose vision had improved under continued large doses of potassium iodide from the capacity to count fingers at 3 metres to ½ths, and who had been able to work during the last five years.

Mr. HOLMES SPICER described a case of Edema of the Conjunctiva due to Obstruction of the Lymph Stream. He said these cases presented themselves in two groups, the acute and chronic. In the acute cases, owing to a poison received into the conjunctival sac supposed in one case to have come from wood pavement, the pre-auricular and cervical

¹ THE LANCET, Nov. 5th, 1892.