

sions—the only portal through which they can be received into the system.

It was for reasons such as the above that I was induced to place J— on a diet of skim-milk. The progress of the case from this date (May 1st) was as follows:—

1. He vomited on the 7th of May. Examined on the same day, I found the vomit was now alkaline instead of acid, very much thicker, and much whiter in colour. The sarcinæ were all in a state of degeneration; not one perfect square or frustule could be seen. The milk had produced an artificial degeneration similar to that seen in the vomit after it was six weeks old.

2. These granular sarcinæ did not live in the vomit as before, for in three days they had disappeared, the field of the microscope showing nothing but molecules and granules, fat-cells, and oxalate-of-lime crystals. Sometimes a frustule could be seen swelled up to bursting with granular matter, but nothing was now seen of the squares.

J— was now free from vomiting sometimes for an interval of three weeks, but still he did not improve in general health and strength. About the 15th of June he seemed to get worse, and to lose strength so fast that I was constrained to add beef-tea and more brandy to his diet. The vomiting increased from day to day, the vomit being very fluid, very fetid, and mixed with pus, though still alkaline and free from perfect sarcinæ. He was now unable to leave his bed; his breathing was short and troubled; he was icteric, and had complete retention and partial suppression of urine. At 4 P.M. of the 18th of June the patient quietly died, during one of the most terrific thunderstorms known in this part of the country for many years. I attempted, forty hours after death, to hold a post-mortem examination, but the body was so putrid, and the smell so horrible, that it was not accomplished.

And so he died. And the case does not apparently afford a very satisfactory illustration of the benefit of the milk treatment in sarcinous vomiting. It does not, truly; but from unsuccessful cases as much, and sometimes more, can be learned as from those that are brilliantly successful.

Rothwell, Northamptonshire.

ON THE DISEASES OF THE ANTRUM.

By A. VANS BEST, M.D., F.R.C.S.

THE diseases of the cavity of the antrum proper must be kept, in their surgical description and treatment, separate from those which have their rise in the alveolar process—such as epulis or otitis—terminating in necrosis, &c. The diagnosis of disease in the interior of the antrum is, at first, very difficult, and the symptoms about to be described fail to point out, with certainty, with what disease the surgeon has to contend.

In the first place, pain, a feeling of weight, and “neuralgia” are complained of, and a slight puffiness of the cheek is observed. The nostril on the side affected is generally dry, and on examining the mouth there will usually be found disease of the bicuspid teeth, with, probably, necrosis of the root of one of them, which may or may not have found its way into the antrum. Under these circumstances I have never seen any enlargement of the antrum, although the cheek is usually puffed. The proper treatment, of course, is to extract the dead portion of the tooth, make a free opening with the trocar, and wash out the cavity with some weak disinfecting solution. Should it be impossible to ascertain, in a mouth filled with stumps, which is most to blame, I prefer passing a full-sized flat trocar above the root of the second bicuspid.

A second class of cases occurs in which we have dropsy, or pseudo-dropsy, of the antrum—in my experience always associated with non-malignant polypus, exactly similar to the fibroid polypus of the nose. In these cases little pain is felt, and the only uneasiness complained of is a feeling of stuffiness in the head, weight in the affected part, and lachrymation from the eye of the side affected. Should the opening from the antrum into the nose be closed, the pressure from the accumulated fluid soon thins the anterior wall, and the cheek, on being pressed upon, gives a most

characteristic crackling sensation. The face being swollen, it is generally then that people of the middle and lower classes first apply for advice. In cases such as these there is no necessity for the removal of the antrum; the proper treatment I consider to be to divide, if necessary, the upper lip, tying the coronary arteries, pulling up the flap, and, with a strong scalpel, dividing and removing the whole of the attenuated bone. Probably a considerable amount of serum will escape, and most likely a polypus will be found in the cavity. The only risk attending this operation is hæmorrhage from a wide-based polypus, and this is easily controlled by the actual cautery, or plugging with a strip of lint dipped in perchloride of iron with glycerine.

Osteo-sarcoma and enchondroma of the upper jaw require complete ablation. There is no difficulty in the diagnosis, as the tumour is firmer than scirrhus, rough and irregular in outline, and of slow growth. On opening the front part of the antrum, should the tumour be found to present the character of encephaloma, it would be worse than useless to attempt to extract it, as it would certainly recur from the numerous processes extending towards the back of the orbit and base of the skull.

In scirrhus, however, it appears to be different. The diagnostic points of scirrhus of the antrum I think may be described as follows:—Hereditary predisposition; advanced age; constant dull pain in the part, with occasional stabbing pain; the speedy appearance of a swelling in the cheek and palate, which may in time be also felt with the finger at the posterior nares; and, as the disease advances, the eye may be extruded. Excessive pain generally prevents the sufferer from sleeping, and this is the principal reason that would lead the surgeon to remove the superior maxilla—not so much to cure the disease as to give comfort to the patient and to prolong a life which would certainly speedily come to a close from the wearing suffering the disease entails. The operation, however, of the removal of the whole antrum is generally held to be unjustifiable should any enlargement of the submaxillary glands exist, still more so should any head symptoms show that processes of the tumour extend towards the base of the brain.

Cases of abscess of the antrum treated by perforation, and completed by cure, are far from uncommon. Fibrous tumour of the antrum I have twice removed by cutting through the attenuated bone with a strong scalpel, and stopping the hæmorrhage with a long strip of lint firmly plugged in the cavity; in neither of these cases did I divide the lip.

The entire removal of the right superior maxilla, together with the pterygoid process and palate bone, is a much more serious affair, both for the patient and the surgeon, and I am glad to place on record an instance of its successful performance.

Mrs. R—, aged sixty-three, sanguine and healthy-looking, had, from the month of May, 1872, pain in the right antrum, which gradually increased in severity during three months. She thought it was rheumatic. No swelling appeared till the end of June, when she became sleepless at night, and a dull aching pain lasted all day. She had lost all her teeth on that side, with one exception, and that was removed without benefit. I first saw this case about the beginning of July, when there was fulness of cheek, and a lobulated expansion of the hard palate, of the right side; and a tolerably hard tumour could be felt at the back of the posterior nares; great persistent pain was complained of; there were no enlarged glands. An exploratory puncture was made by her usual medical attendant, with a negative result. I subsequently saw her, arranged matters, and, at her urgent desire, operated on Saturday, September 21st.

The patient being supported in a chair, with a sheet tied round her, chloroform was gradually administered. I divided the upper lip into the right nostril; tied the coronary arteries; entered my scalpel over the right malar bone, cutting to the bone, across to the nasal process of the superior maxilla, then down the side of the nose, round the ala, to join the first incision. I quickly reflected the whole flap, holding it firmly to compress the vessels, and dissecting free of a nodule of tumour prominent in the anterior wall. I then tied what vessels bled; cut with a cutting pliers the malar bone above and below, completing the section, as also the external orbital angle and the nasal, and the internal angle of the orbit, with a Liston's forceps. With a pruning-claw nippers the hard palate was easily divided.

After separating the eye from the orbital plate, I found the lion forceps would break up the tumour; so I used a long flat-bladed lithotomy forceps, placing one blade in the orbit, and, dividing the pterygoids and other attachments, succeeded in wrenching the whole mass away. Immediately on its removal, a very large jet of blood sprang from the deepest corner of the wound; this was immediately controlled by the finger, and arrested by two applications of the actual cautery. This probably was the internal maxillary greatly enlarged; but its situation was so deep at the tip of the petrous portion of the temporal and body of the sphenoid bone, that it is impossible to be sure of the vessel. A few parts of the soft palate and cheek required a little trimming, and several small vessels were ligatured; long strips of lint damped with tincture of muriate of iron were pressed to the very base of the skull, and the wound united with gold-wire sutures, except the free mucous membrane of the lip, which was stitched.

The patient soon rallied, and slept almost continuously for two days, being only wakened to have her mouth syringed and to get milk, beef-tea, and ice. On the third day all the strips of lint were removed, without any hæmorrhage; the greatest attention was paid to syringing the whole wound with diluted Condy's fluid, and, at times, carbolic-acid lotion. Five weeks after the operation all the external wound was healed, with the exception of two small holes in the transverse incision; and the patient returned home quite relieved of all her former suffering, and with a fair chance of life being prolonged for some years.

In doing this operation again, I would not cut quite so close to the orbit, as the tissues are not very vital there. There was no sloughing, but, notwithstanding a free allowance of port wine, bark, and whisky, these portions would not unite by the first intention.

The tumour presents the following appearance:—It is of the size, and somewhat of the shape, of a large lemon. Below, half the palate; posteriorly, the mucous membrane of the posterior nares and pharynx; internally, the turbinated bones; externally and laterally, a long tongue that has extended into the sphe-no-maxillary fossa; anteriorly, a rounded protrusion through the wall; superiorly, the orbital plate. It is quite solid after immersion in spirits; and, microscopically, is an admirable example of fibrous scirrhus.

The patient can speak wonderfully well, sleeps, eats soft food, and is in every way comfortable. She left for her home within six weeks of the operation.

I was most ably assisted by Dr. A. Forbes; Dr. Scott, of H.M.'s Navy; Mr. Moir, the house-surgeon of the Royal Infirmary, Aberdeen; and Dr. Inglis, who most judiciously kept the patient sufficiently under chloroform. There was no trouble from blood getting into the larynx.

Aberdeen.

TANGIER AS A WINTER RESORT FOR INVALIDS.

By ARTHUR LEARED, M.D., F.R.C.P., M.R.I.A.,
SENIOR PHYSICIAN TO THE GREAT NORTHERN HOSPITAL.

A TOUR in the Empire of Morocco this autumn has given me the opportunity of making personal observations, as well as of gleaning information, in this little-visited country. One portion only of it is accessible, and is a good deal frequented by Europeans. What Boulogne is to France in relation to England, Tangier is to Morocco in relation to Europe. Three hours' sail from Gibraltar across the narrow strait places one in an entirely different world. It may be that some comforts are missed, and that some prejudices are shocked; but for those who can rise superior to such things, and who enjoy the study of men and manners under new aspects and with new surroundings, Tangier will prove a place of great interest.

Regarded in this light, Tangier is well suited for an invalid residence. Hardly anything is more important than that the mind should be pleasantly occupied by surrounding objects. The dull monotony of some health-resorts, and their depressing effects, are well known.

Yet one consideration, that of climate, takes precedence of all others. Unfortunately, no systematic record of the weather has been kept at Tangier. One must rely on the general accounts given by healthy residents, and on those which refer more particularly to its effects, on the accounts given by invalids. The statements of both are so ample and satisfactory that I am convinced if accurate meteorological tables did exist they would compare well with those of the most favoured climates.

One feature of the climate of Tangier is equability. Its situation on the ocean, and the protection of mountain ranges on the south, secure it against the scorching heat to which the inland parts of Morocco are exposed. The desert winds which are so objectionable in Algiers and other places on the Mediterranean littoral are here unknown. The summer temperature ranges between 78° Fahr. and 82° Fahr., and the latter is rarely exceeded. The summer heat is maintained until the autumnal rains have well set in. As an example of the steadiness of temperature, it may be stated that of twenty-three observations made by myself at almost every hour of the day and night between Sept. 15th and 23rd inclusive, the thermometer in my bedroom ranged between 78° Fahr. and 72° Fahr., while the mean was 74·2° Fahr. During this time the weather had broken up, and on one day there was heavy rain. In winter the mean temperature is about 56° Fahr., and fires are acceptable at night. The banana, the palm, and other trees and plants susceptible of the action of cold, flourish here.

The first rain occurs about the middle of September, and lasts from two to four days. This is succeeded by bright exhilarating weather, the enjoyment of which is heightened by the changes which the country undergoes. Hills that seemed hopelessly arid, and whose dull colour displeased the eye, now spring into verdure. The change in the landscape is that from death to life. Throughout October the weather is all that the invalid could desire, but in November there is generally rain—at times very heavy rain—for some days. After this the winter and spring weather until May is mild and genial. A wet day will now and then occur, but even in the most rainy weather it is very unusual not to be able to get out some part of the day. This is a great advantage. In the selection of a climate for the invalid, the possibility of his taking exercise on every day on which his strength allows should never be neglected.

The south-west wind sets in with the autumn rain, and this wind prevails throughout the winter. Thunderstorms are infrequent, and hardly ever happen with the early rains. The climate is moist, as shown by the facility with which iron rusts. But it is less moist than that of Madeira, between which in this respect and that of Algiers it may be placed intermediately. The advantages of climate possessed by Tangier over Gibraltar are freely acknowledged by the inhabitants of the rock. They are constantly in the habit of crossing the strait in search of better air; and at the present time two army medical officers of position have a plan on foot for establishing a sanatorium for the garrison of Gibraltar at Tangier.

A gentleman who has resided long at Alexandria assured me that he finds the climate of Tangier so vastly superior to that of Egypt that he had bought a house on Mount Washington, three miles from Tangier, with the intention of repairing there whenever his professional duties will allow. Another gentleman, who holds a high official position in Tangier, left England suffering from phthisis, in which hæmoptysis was a marked symptom. After having tried different localities in the Levant without material benefit, he came to his present residence eight years ago. To his own testimony of his recovery I can add that of his London physician, who is justly regarded as foremost in experience of such cases, to the effect that he regarded this case as one of cured phthisis. Another actively engaged official at Tangier, and resident there for some years, informed me that before his arrival he had been long a phthisical invalid, and had ineffectually tried different climates. He now considers himself quite restored to health. Other cases favourable to the climate could be quoted if necessary.

The cost of living at Tangier is very reasonable, as the necessaries of life are cheap. At the Royal Victoria Hotel, kept by Mr. Martin, the invalid will find all his wants attended to. Madam Susannah's hotel is highly spoken