

deal specially with dysentery—and to show that when the disease has lasted many years the patient may be restored to complete health. The milk diet should be continued until the pain, diarrhoea, and passage of blood or mucus have all ceased and formed motions have been passed for some time; the patient should not get up till at least a fortnight or three weeks after he has passed from milk to farinaceous diet. It will be noticed that the restricted diet was continued although the patient lost weight; provided that he is not allowed to become too weak this is of little importance compared with the advantage gained from rest to the colon.

On March 17th, 1894, Dr. H. J. Dring asked my opinion on the case of a patient aged thirty-three years. He was originally a healthy subject. In 1882 he left England for Minnesota, where life was rough and work hard, but except for a slight attack of malaria he kept well. In 1885 he went to Fiji; he was never well there and had dysentery severely in 1888. As he got no better he was sent to Melbourne and admitted into the hospital, where he was twelve weeks. When he left there he was better, but he relapsed immediately, and gradually getting worse and worse he finally started for England, arriving at Christmas, 1889. From then till 1894 he went to numerous medical men, who gave him drugs, but none of them put him to bed for long together, and although often the dysentery would entirely disappear for a short time it always returned, and he was consequently quite unable to follow any occupation, and had had to resign various posts. When I saw him the bowels were open four or five times a day, the motions contained much mucus and blood, he complained greatly of dull abdominal pain, especially in the left iliac region, his tongue was covered with a thick white fur, he was very anæmic, sallow, and wasted. He weighed 11st. 2lb., his height being 6ft. 1½ in. I gave it as my opinion that the only treatment likely to cure him was complete rest in bed and milk diet for many months, and he consented to undergo it. He was put to bed on March 31st, 1894. On this day the bowels were opened five times, and the stools contained much blood and mucus, with a few small, hard lumps of fæces; there was much pain before the act of defecation. Some observers thought amœbæ could be seen under the microscope in the fæces, but others could not find them. The patient was allowed no food except two pints of milk a day. He was ordered ten grains of ipecacuanha powder thrice a day; and twenty grains of carbonate of bismuth, twelve minims of tincture of opium, twenty grains of compound tragacanth powder, and water to make one ounce thrice a day. The accompanying table shows the frequency with which the

Table showing the Frequency with which the Bowels were Open.

Date.	No. of motions.	Date.	No. of motions.	Date.	No. of motions.
March 31	5	April 13	1	April 26	0
April 1	2	" 14	4	" 27	0
" 2	1	" 15	4	" 28	0
" 3	3	" 16	3	" 29	0
" 4	3	" 17	2	" 30	1
" 5	1	" 18	1	May 1	1
" 6	2	" 19	0	" 2	0
" 7	2	" 20	0	" 3	0
" 8	6	" 21	0	" 4	0
" 9	4	" 22	0	" 5	0
" 10	3	" 23	0		
" 11	0	" 24	2	The bowels were never open oftener than once a day after this.	
" 12	1	" 25	2		

bowels were open. On April 6th the motions contained no mucus, but still a little blood. The pain was better. The mixture was stopped and the ipecacuanha was given in the form of a five-grain pill thrice a day as the patient was very sick. On April 10th, as the pills were passed unchanged, the ipecacuanha was put in cachets, but he continued to be sick, and so the ipecacuanha was in a few days left off. On April 16th there was still some blood and mucus in the motions and some pain in the abdomen. He was put upon a mixture containing ten grains of carbonate of bismuth, ten grains of bicarbonate of sodium, and ten minims of liquor morphiæ hydrochloratis. On April 25th the patient was allowed four oysters a day in addition to his milk. On May 1st he passed a formed motion for the first time. The

pain in the side had decreased and the mucus and blood were much less abundant and less frequent than formerly. By May 25th the motions were always formed. Often there was neither blood nor mucus, and when either was present the amount was very slight. The pain had almost disappeared. From this date the progress was uninterrupted. Blood and mucus were only seen in the motions on one or two occasions. By July 3rd he had improved much in all respects. He was allowed some coffee. On July 27th the improvement continued. He was allowed some custard. On Aug. 22nd bread-and-milk made without crust and a little bread-and-butter were added to his diet. On the 27th he got up for a short time, having been in bed continuously for five months. His weight was 9st. 6lb. He thought he probably weighed less a month before. On Sept. 8th he was allowed fish; on the 14th he went out for the first time; and on the 21st he took ordinary meat. On Oct. 8th he went away into the country. He was directed to keep warm, to lie about as much as possible, to walk but little, and to avoid rich dishes, indigestible food, fruits, and most vegetables. On Dec. 2nd he wrote from the country saying that he had been "getting on steadily, gaining in strength and weight. I turned the scale at 12st. 11lb. yesterday, and can walk a good deal without getting tired." He went on to say that he had been most careful in his diet, and that he had lived chiefly on milk. During the spring of 1895 he was to all intents and purposes quite well, playing golf daily and taking ordinary plain food; and in May he went back to business, just thirteen months after the treatment began. He is still in excellent health. During the time he was under treatment an occasional enema of olive oil was given when it appeared necessary on account of constipation. None of the medicines above mentioned, nor some de-emetised ipecacuanha which was ordered, were continued for long, for it was found that on the whole he did better when he was not taking drugs.

Harley-street, W.

ON MALIGNANT DISEASE OF THE PERIDONTAL MEMBRANE.

BY A. HOPEWELL SMITH, L.R.C.P. LOND., M.R.C.S., L.D.S. ENG.

DURING the course of some recent investigations in the subject of the patho-histology of the peridental membrane I found among my specimens several marked examples of a new growth intimately associated with and springing from the fibrous periosteum of the teeth—a condition which seems to have escaped the attention of the writers of surgical and dental text-books. These periosteal tumours present on examination appearances which warrant more than a passing notice and afford a subject of great interest and importance to general and dental surgeons alike. The cases under consideration are not absolutely unique. For instance, Mr. Oakley Coles, at the annual meeting of the British Dental Association held at Cambridge in 1885, mentioned that he had at a previous meeting of the Odontological Society of Great Britain, exhibited a specimen of round-celled sarcoma attached to a molar tooth, the microscopic examination of which had been made by Dr. Klein. As a result of the study of my morbid anatomy specimens, of which I possess more than half a dozen, I have been induced to place on record my observations on this particular and somewhat rare affection.

To those unfamiliar with the microscopical appearances of the peridental membrane a brief description of its histology is needful for a larger comprehension of the patho-histology of the disease. The alveolo-dental periosteum is a thin layer of connective tissue which surrounds the roots of teeth and occupies a position between them and their osseous sockets. It consists of bundles of large white connective-tissue fibres arranged chiefly in a transverse direction, and is, in fact, "much like any ordinary fibrous membrane,"¹ being freely supplied with bloodvessels and nerves. The cellular elements vary considerably, and include cementoblasts, osteoblasts, osteoclasts, and fibroblasts, together with cells and tissues of

¹ Tomes: Dental Anatomy, p. 93. 1894.

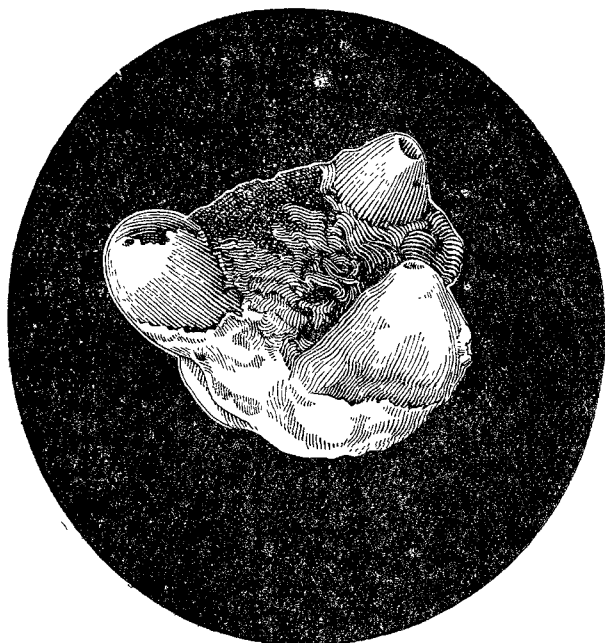
an "indifferent" nature.² In addition, there are occasionally found cementoclasts, calcospherite spherules, and the so-called "lymphatic spaces" described by Dr. G. V. Black. Of all these the fibrous tissues and fibroblasts predominate.

The chief points of interest in connexion with these peridental tumours are that they are found in connexion with the

cases) absorption of the apices of the roots. They are markedly loose, and signs of chronic inflammation of the periosteum, accompanied by an accumulation of tartar, are often noticed.

3. The *etiology* of the disease is obscure; but there seems to be a predisposition on the part of the growths to attack

FIG. 1.



Maxillary molar (sound): viewed from above; enlarged $\frac{1}{2}$. It shows the growth in its early stage, springing from the peridental membrane of the region between the roots.

roots of sound teeth, and that their characteristics are those of round-celled (alveolar) sarcomata.

1. *Seats of occurrence.*—The growth is confined, as its *locus principii*, to the periosteum of the molar teeth, the maxillary being much oftener affected than the mandibular series. It is generally seen to rise from a point situated at the junction of the roots with the body of the tooth (Fig. 1); but it may have its origin from the sides of one or even two roots (Fig. 2). Later, it generally fills up the whole of the inter-radicular region of the tooth (Fig. 3).

2. *Macroscopical appearances.*—The tumours vary in size from that of a split pea to a small nut, and have a smooth,

FIG. 2.



Maxillary molar (sound); side view; enlarged $\frac{1}{2}$. It shows the growth springing from the sides of the two buccal roots. A more advanced stage than Fig. 1. There is a slight deposition of tartar on the distal aspect of the tooth.

convoluted, rarely ragged surface. They are firm to the touch and are of a deep-red colour. The teeth themselves are non-carious and exhibit in their hard parts no traces of disease except slight attrition of their cusps and (in some

FIG. 3.



Portion of right maxilla, excised for malignant disease; distal view; enlarged $\frac{1}{2}$. It shows the first maxillary molar *in situ* with its peridental membrane greatly increased in size by the growth, and also the secondary infiltration of the neighbouring parts. The tooth is sound, but loosened to a considerable degree. The sound canine tooth is seen in position at the back of the figure, the roots of the two bicusps occupying the interspace. From original photographs.

the fibrous membranes of the teeth of females about the period of the menopause. Long-continued and powerful friction, as shown by the wearing down of the cusps, is probably the exciting cause.

FIG. 4.

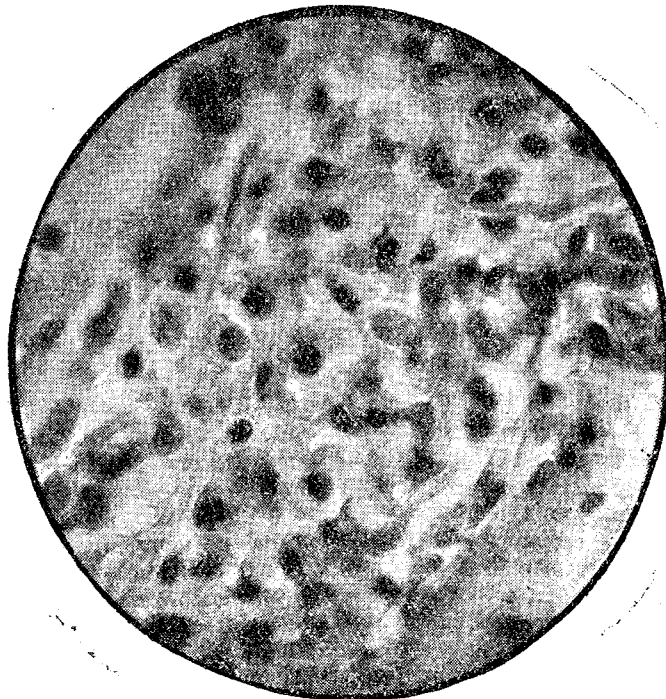


Photo-micrograph of a section ($\times 500$ diam.) of a peridental sarcoma exhibited at a recent meeting of the Odontological Society of Great Britain.

4. The *subjective symptoms* point chiefly to long-continued sharp pain, increased on pressure, the course of the disease lasting sometimes several months. The pain is excruciating at times, and such as to render necessary immediate extraction of the loosened organ.

² Black: A Study of the Histology of the Periosteum and Peridental Membrane, p. 72. 1887.

5. *Objective symptoms.*—On examining the mouth, at first there is sometimes almost entire absence of swelling or of any usual inflammatory signs, and the tissues are not markedly indurated. There may be slight suppuration. If the disease is not far advanced diagnosis is only complete after removal of the tooth. Later, well-marked symptoms of malignancy appear.

6. *Microscopical appearances.*—The growths consist of masses of cells held together by a fine network of fibrous tissue which is very dense here or very loose there, and is in some places apparently undergoing fibrification or chondrification. In the centre of the growth this network is scanty, but the intercellular tissue is conspicuous outside. Vessels are scanty in the centre and have extremely thin walls; they ramify among the cells. In the outer portion they are larger (but not dilated) and have normal walls. The cells themselves are for the most part rounded in shape and considerably larger than red blood-corpuscles (Fig. 4). They contain one or more nuclei and are devoid of any definite cell wall. Great numbers of spindle cells exist. There is little hæmorrhage into the tissues, probably because of the small size of the growth, and because it has not advanced sufficiently to allow of large hæmorrhages to take place in its substance; but small extravasations of blood corpuscles are noticed here and there. Microscopically the growth is practically indistinguishable from granulation tissue, as has been pointed out by Mr. Knyvett Gordon; considered from a clinical aspect, however, there can be no doubt as to its malignant nature, as Fig. 3 shows. The jaw was excised for malignant disease of the antrum by Mr. W. J. Pilcher of Boston, to whom I am indebted for the specimen. The photograph exhibits the first right maxillary molar *in situ*, with its periodental membrane greatly enlarged by the new growth. Infiltration of the surrounding parts has taken place, the gum, antral mucous membrane, and alveolar process being alike affected, and the latter partially absorbed. There is also absorption of the apical regions of both the labial roots. The patho-histology of this growth is identical with that of the isolated cases already mentioned, and from the evidence at hand it seems to be clear that the latter are only earlier stages of the former.

To sum up, it may be said that sarcomatous disease of the periodental membrane is not rare in its earlier forms, but that it is very seldom met with in an advanced condition; and that removal of the molar tooth fortunately cuts short its career if taken sufficiently early, but if it is allowed to continue it constitutes another starting-place for malignant disease of the maxillæ.

Boston, Lines.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

TINCTURE OF CUSPARIA.

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FEW drugs are better known and less used than cusparia. I think many of our profession will agree that there should be a spirituous tincture of cusparia in the new Pharmacopœia. In official tinctures of mild aromatic and non-astringent bitters we are not too well off; and a watery infusion, which is the only preparation of cusparia in the present British Pharmacopœia, is unwieldy for many purposes. A consideration of the history and constitution of the drug suggests that cusparia has claims to a professional revision of its therapeutic properties. Perhaps it is owing to certain peculiar circumstances of fraudulent commercial substitution, which were pointed out long ago and which are well known, that cusparia has not come into usual employment in European practice, although it has been much vaunted as the chief ingredient in a popular cordial, and although it appears to have found extensive therapeutic consumption in South America and elsewhere. I have been prescribing a tincture of cusparia bark, which I have had made with proof spirit, and of the strength of two and a half ounces of the bark to one pint, and I have directed its preparation in a manner similar to that given in the official directions for tincture

of cascarilla. Recent researches (1892) of Beckurts and Nehring show that cusparia bark contains, besides a volatile oil and other constituents, four alkaloids—namely, galipine, galipidine, cusparine, and cusparidine—all of which are crystallisable bases. I think it will be found that a proof spirit tincture would better represent the essential constituents of the drug than an aqueous preparation, such as an infusion. The profound and practical Paris, in his classic "Pharmacologia," wrote of cusparia bark: "Its active matter is taken up by cold and hot water, and is not injured by long decoction, but the addition of alcohol precipitates part of the extractive. Alcohol dissolves its bitter and aromatic parts, but proof spirit appears to be its most complete menstruum." I find that a weaker tincture than that which I have indicated—namely, of the strength of one ounce of cusparia to one pint of proof spirit—is given as a non-official formula by Beasley.

Birmingham.

A CASE OF FORWARD DISLOCATION OF THE SEMILUNAR BONE.

BY LEONARD P. GAMGEE, F.R.C.S. ENG.,

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A MAN aged fifty-two was admitted to the General Hospital, Birmingham, on April 9th, 1895, complaining of a swelling over the front of the left wrist and of inability to flex the joint. He stated that four months previously, while working in a mine, he was standing with his back to the wall, with his left elbow flexed and with the back of his left arm pressing against a beam which projected from the wall. While he was in this position a truck came along and struck his left hand in such a way that his wrist was forcibly hyperextended. He found, immediately after the accident, that he was unable to flex his wrist, and very soon a great deal of swelling appeared all round the joint, both back and front. This general swelling subsided during the next fortnight. At the end of that time the condition was the same as on his admission. When he was admitted the following conditions were present. The power of extension of the left wrist was normal, but the joint could not be flexed beyond the horizontal position. On the front of the carpus in the middle line was a hard and fixed swelling, apparently immediately under the skin. From the size and position of the swelling I diagnosed that it was one of the carpal bones—probably the os magnum—dislocated forwards, and, from the fact that the patient felt numbness and tingling along the palmar surfaces of the first three fingers, that the median nerve was stretched over the surface of the bone. It was quite impossible to reduce the dislocation, and so two days after his admission I made a longitudinal incision over the swelling and found it to be caused by the semilunar bone, which had been dislocated forwards and then displaced downwards over the os magnum, the median nerve being stretched over the front of the bone. The nerve was freed and the bone removed, the wound healing by primary union. I last saw the patient on June 11th and found that the movements of his left wrist-joint were perfect, the left hand being practically as useful as the other. Subluxation backwards of one of the carpal bones, especially of the os magnum, is not very uncommon and is generally caused by forcible flexion of the hand. Forward dislocation of one bone, unless compound, is, on the contrary, extremely rare, the chief obstacles to displacement being the concave form of the palmar surface of the carpus and the resistance offered by the anterior annular ligament. In this case removal of the bone was the only possible way of restoring the function of the wrist, reduction such a long time after the injury being quite out of the question.

Birmingham.

PRESENTATIONS.—Dr. James W. Norris Mackay, of E'gin, has been presented by the members of the Northern Counties branch of the British Medical Association with his portrait (painted by Sir George Reid), in recognition of the "valuable, disinterested, and unremitting services rendered by him as secretary and treasurer of the branch since its inauguration in the year 1863."—Mr. S. Boake, L.R.C.S. Irel., who has conducted, at Chard, classes in connexion with the St. John's Ambulance Association, has been the recipient of a gold pencil-case and an illuminated address from the members of the classes as a tribute of their esteem.