mouth, it becomes soluble, and may be tasted, and the taste remains in the mouth for some hours after. Gold is likewise soluble in the saliva, but the taste of this will remain in the mouth for two or three days.

I made the experiment of tasting crude mercury in my mouth, to ascertain its true taste. I afterwards tasted other preparations of mercury in the same manner, and found they were all alike. I then made a course of experiments with different preparations of mercury, first taking mercurius calcinatus until it affected my mouth, and I found it had exactly the same taste as the crude mercury. I afterwards made my mouth sore at separate times with calomel, corrosive sublimate, and by unction; each gave exactly the same taste when they affected the mouth, and other preparations gave the same taste on experiments. Hence I conclude that every preparation acts in the same manner, and is the same when in a state of solution in the constitution. If it was not dissolved it could not be tasted. Crude mercury is not easily soluble in the juices; therefore, when taken undivided, it has little effect. When divided by gum arabic or other means, it is easily soluble in the stomach, and purges. The calx is still more apt to purge, being easier soluble in the juices. All the preparations of mercury are soluble in the animal juices, and are reduced to the same state. If the preparations could enter the constitution in the state they are administered, then the cure must be performed in different ways, for their actions must be different.

Mercury causes irritability in the system, which is shown by people who are accustomed to be electrified; for the same shock which they have been used to, they cannot bear after having taken mercury for some time. Therefore, where electricity has done little good, by giving mercury it has so disposed the constitution to be irritated by it, that it afterwards has cured.

A gentleman had electricity recommended for a complaint which he then laboured under; it was used for some time without any apparent effect. At length, having the venereal disease, he took mercury, and while under this course electricity was again used for the former complaint; but upon trial the patient had become so irritable that he could not bear a shock of half the force of the former; but electricity now had more effect on the disease than before, though the shocks had been twice as strong, and he at length was perfectly cured. From the above case the surgeon took the hint to give mercury in other cases where electricity was used without effect, and with equal success.

When Mr. Walsh was making his experiments on the torpedo, a servant who assisted him, and who was very familiar with the effects of electricity, was made so irritable by mercury that he could not bear the usual shocks.

From the action of mercury sometimes being too violent, medicines are advised to check it; sulphur has been chiefly recommended, and this seems to prevent its operation on the constitution; it may, perhaps, combine with the mercury, and make a kind of Æthiop's mineral, that medicine being a combination of mercury and sulphur. Æthiop's does not act as mercury does.

When sulphur is chemically combined with metals, it prevents their effects on the constitution; and when combined with mercury, the preparation has no effect on the constitution as mercury, as factitious cinnabar, for instance, not even when mechanically combined; for Æthiop's mineral is only the mercury mechanically combined with sulphur. That sulphur enters the constitution, is known from the sweat and urine smelling of it; when taken freely, it will then cure the itch. Its power of stopping the effects of mercury may arise from its effects on the salivary glands, being different from that of mercury. When sulphur is united with a metal, it destroys its solubility in the animal juices. None of the cinnabars act either as

sulphur or as mercury. Crude antimony is almost inert from the large quantity of mercury it is combined with. Sulphur even destroys the power of arsenic; as also iron, under which last state of combination, it forms a pyrites. It is probable that sulphur acts as an antimercurial stimulus, and by that means counteracts mercury. When mercury attacks the bowels it is often dangerous, but it is in our power to check its effects on this last part more than any other, for which opium should be given in such quantities as shall be equal to the disease, and it seldom fails to cure all the symptoms. Purging is likewise recommended, but that can have no effect.

Sometimes there is a continuation of the salivation from habit, a gleet of these parts, which is very different from the salivation continued by the action of mercury, and must be treated differently. In such cases a strengthening diet must be used, and a course of strengthening medicines, as the bark, &c. It likewise will be useful to wash the mouth with astringents, as decoction of bark, the tincture, &c. Sea bathing is a very good restorative of a relaxed habit, particularly after mercury.

The teeth often become loose from an absorption of the alveolar processes and gums; these are taken up from the irritation of the parts; the gums slough, and pieces of the jaw often exfoliate. What state the alveoli are in when the teeth are loose, and how they afterwards are fastened, can only be with certainty known by examination in different states.

Prevention of the Disease.—The origin of this infection being known, it can with the more certainty be prevented. It may be prevented in two ways—the first is, by using such substances as will prevent its stimulating, such as oils of all kinds; if they have a little degree of tenacity, they are the better. Oil rubbed on a free part adheres to it, and prevents anything watery touching it. The second have a power of mixing with the venereal matter, and removing it from the part to which it is applied; of this kind, the caustic alkali is the best, as it unites with the matter, forming a kind of soap, and by that means is easily washed off; it is possible that this union with the alkali may destroy the poison. The alkali must be diluted or it will excoriate. Aqua calcis makes a pretty good lotion. If both these modes are used there will be still more security. Goulard's extract has a power of coagulating the animal juices; how far this will answer I cannot determine, for the matter may be coagulated and still not destroyed.

CASE

OF

LARGE OSSEOUS TUMOUR IN THE CAVITY OF THE ABDOMEN,

WITH

THE AUTOPSY AND REMARKS.

By F. A. BULLEY, Esq., Surgeon, Reading.

Mrs. F., aged 67, an unmarried lady residing in this town, consulted me, October 22, 1841, respecting her complaints, which were as follows:—She was then and had been suffering for some time past from a constant unremitting noise, or sensation of buzzing and roaring, in her ears, particularly in the right, occasionally changing to a kind of continuous whizzing, which she compared to the hissing of a steam-boiler while the vapour was escaping. She had no headache, but only those worrying, harassing feelings which at times seemed to extend upwards in the direction of the lateral sinuses. She attributed her distressing suffering to a violent cough which had affected her last June, when she was seized with paroxysms of great severity, frequently recurring and usually

ending in fits of crying, which seemed to relieve her. This cough ultimately left her, but the straining which had accompanied it, appeared to have occasioned these unpleasant sounds in her head. Sleeping or waking they were now always present to her, and were a source of great anxiety, as she feared that they would one day or other cause the estrangement of her reason, which, to her friends, had hitherto seemed uncommonly sound and clear.

For these symptoms she had consulted an eminent physician in the town, who considered her complaints to depend upon some peculiar but obscure cerebral condition, referring her strange sensations to some lesion of the brain, which it was difficult exactly to define. She was afterwards attended by my father, who recommended cupping in the neck, but this afforded her very trifling or no relief. When I first commenced my attendance upon her, which was shortly after this period, she had, in addition to these symptoms, extreme tenderness on pressure in the epigastric region, and a sensation of dragging downwards of the stomach, which she described as very distressing. She every now and then threw up a quantity of clear fluid of an acrid and pungent taste, and when she did this, the dragging was in some measure relieved. She would then have a short interval of comparative ease; she had felt this sensation of dragging down of the stomach, most particularly after walking up a hill, or when fatigued; and latterly she had always experienced it when not in the recumbent position.

Her attendant, a very intelligent person, gave me the following history of the progress of her case from the time she had first known her, many years ago. She had, as long as she could recollect, been subject to a fluttering sensation in her left side, which always caused her more or less anxiety and depression of spirits, with eructations of some fluid and other signs of disturbance of the stomach; but until within a few years past she had experienced none of the dragging sensations which had now become so constant and harassing. There had always existed a necessity for her taking aperient medicine, without which she seldom or ever had a natural stool. She had never lately been able to lie on her left side without great uneasiness, and when she attempted to do so, she immediately became sick, and felt otherwise very uncomfortable. She had occasionally experienced a dull heavy pain in the right iliac region, especially after walking, which she referred to fullness of the bladder from the temporary accumulation of the urine on these occasions. At the age of 52, the catamenia appeared for the last time somewhat profusely, and accompanied by great heat and itching of the external organs, with a burning sensation extending inwards, towards the os uteri, which was at this time very severe. She had never previously had any morbid discharge from the vagina. She had before that period always menstruated very regularly, but profusely; and of late years had always had more or less of the burning and itching, with excoriation of the external parts. When the catamenia had ceased, the itching and the heat in a great measure left her, but the dull aching pain in the right side remained, and especially troubled her after walking. About twenty-three years ago, she was confined to her bed for a twelvemonth with what was then considered, by the medical gentlemen who attended her, as an affection of the liver, when she experienced great relief, and was indeed restored to comparative health, by the use of the nitro-muriatic bath. She had distressing sickness all this time, which was thought to depend on a neuralgic condition of the stomach. She never perfectly recovered from this attack, and always afterwards she more or less experienced the dyspeptic feelings I have described. She would now and then, when walking, throw up mouthfuls of sour fluid, and this symptom remained until her death. She occasionally also had slight paroxysms of coughing, but never when she laid down; they seemed to

come on after she had been moving about a little time. After this illness she became immensely stout. The cough was not very violent until last June, when it greatly increased, and she went to London for advice, but received very little relief from the remedies employed; it however left her, or at least became very little troublesome in the beginning of last October, when the noises in the head began, and continued until within a few days of her death.

About this period I was called to attend her, in consultation with the physician who had formerly attended her. She had now all her former symptoms in a very aggravated degree; the perpetual noises and roaring in the head; frequent sour eructations; tenderness in the epigastrium on pressure, but which she did not describe as pain; and the constant dragging down sensation of the stomach, which constantly annoyed her. She was still extremely fat, and it was at first difficult to detect through pressure upon the abdominal parietes any change from the natural condition of the parts within. By and by, however, as she wasted, there could be distinguished an abruptly defined and hardened mass of altered structure in the right iliac region, extending across the umbilicus, which seemed to arise from an indurated and enlarged condition of the liver. Whatever this might be, however, the small intestines lying over it obscured the examination, and rendered the sensation communicated to the fingers very indistinct. There was also a swelling in the left hypogastric region, which at times seemed to have moved or become less, which led us to believe that this might depend on accumulated feces in the sigmoid flexure of the colon. The dragging sensation had now become almost intolerable, and she was obliged shortly afterwards to take to her bed entirely for relief. She could now no longer take solid food, as it caused her to vomit immediately, increasing the dragging feel; and she was thenceforth only able to take nutritious fluids, which she swallowed with great difficulty, as if there was some constriction of the oesophagus a short distance down the tube. After she had taken a certain quantity of fluid, she began to vomit or gulp it up with great difficulty and distress, and the stomach was thus relieved of its burthen, and she felt somewhat easier for a time, until she was again obliged to take the liquid food, when the vomiting again returned; and these symptoms continued in this manner until within a short period of her death.

Her bowels now became obstinately constipated, and injections were absolutely necessary to relieve them, and, at first, large quantities of fecal matter were removed; but the quantities brought away progressively diminished, and, in about three weeks afterwards, there were no feces to be seen in the injections, although they were retained, for some time, in the intestine. The enemata, which were principally composed of gruel and purgative salts, were then discontinued; and for a *whole twelvemonth, before she died*, she did not pass the smallest quantity of fecal matter. Every kind of aperient medicine had been given, internally, without effect. Opiates afforded no relief to her sufferings, nor, indeed, did any of the medicines which were prescribed. Frequent draughts of hot water, almost boiling, seemed to give her the greatest comfort, as well as large doses of carbonate of soda, which appeared to neutralise the acid secretions of the stomach, which always accompanied the vomiting and regurgitation, and thus seemed to extend the interval between these attacks.

She did not now, being confined to the recumbent position in bed, make so much complaint of the dragging sensation, but there was constantly, to some extent, the same pulling weight at the stomach, which had always harassed her. The attacks of vomiting now became more frequent, with very short intervals between them; a kind of transparent fluid, not acid, but very viscid and sticky, kept constantly draining

from the back part of the fauces, and apparently from the upper part of the larynx, which it seemed, in some measure, to clog up, causing a most embarrassing, suffocating feel. She experienced no longer the noises in the head, except occasionally, and then not nearly so severely. She now became gradually weaker, but her general sufferings diminished; a low febrile state of the system supervened, which induced great thirst, and her tongue assumed a dark brown colour; she became delirious, and began gradually, but obviously, to sink; and on Jan. 16, she died, apparently quite worn out by her sufferings. She never had had, during her long and severe illness, the slightest symptom of inflammation of any organ; and her pulse, with the exception of occasionally slightly intermitting, did not deviate materially from the healthy standard.

Autopsy, Sixteen Hours after Death.—The anterior parietes of the abdomen were covered with fat, to the depth of about three inches in its thickest part. It was this condition that at first obscured the detection of the changes which had occurred in the abdominal cavity. On the left side of the umbilicus there was a small irreducible omental hernia, which did not seem to have been capable of producing any considerable dragging upon the contents of the abdomen, so as to account, in any way, for the uneasy sensations she had experienced. On laying aside the parietes, the small intestines generally appeared healthy, and were not preternaturally distended. The cecum, and commencement of the colon, contained a very small quantity of hardened feces. The duodenum was of a somewhat darker colour than natural; the colon was much contracted throughout its whole extent. On pressing aside the small intestines there was observed, in the right iliac region, lying loosely in contact with the posterior part of the abdominal cavity and the spinal column, a hard, firm, bony mass, with an irregular tuberculated surface, of about the size of a large ostrich's egg, and of a somewhat oblong shape, covered with a dense smooth membrane, which seemed to have been formed by a prolongation or extension of the peritoneum, covering the uterus, in which this tumour seemed to have had its origin. The tumour was connected to the fundus of the uterus by a narrow membranous band, about three inches long, which seemed to pass off from the tumour, and afterwards to be reflected over the body of the uterus, of the peritoneal covering of which it seemed to be a continuation; thus far the diseased mass was, apparently, connected with the uterus. On the upper part of the tumour, or that portion farthest removed from the uterus, as it lay in the abdominal cavity, the omentum was attached to it by several strong adhesions, and, especially, one or two bands of the greater omentum appeared to pass upwards, directly to the portions of that membrane reflected off the stomach, and so formed an intermediate connection between the tumour and this organ, so as to put the stomach under the direct influence of the weight of the tumour, as she walked about or stood in the erect position, and accounting, in a great measure, for the dragging sensation that had so much distressed her. On sawing through the morbid mass, which from its extreme hardness it was necessary to do, it was found to consist almost entirely of bony matter—in some parts of a dense and compact consistence; in others of little masses of bone united by intervening cellular membrane. The outside of the tumour was generally much more dense than the interior, which was somewhat softer, and much more vascular, than the rest. The diseased mass weighed exactly three and a half pounds avoirdupoise. There were other tumours in the substance, of and between the surface and the peritoneal covering of the uterus, in different stages of ossific change, and varying in size from that of a horse bean to that of a hen's egg, which gave the organ, when taken from the

body, an irregular nodulated appearance. These latter were mostly cartilaginous, some of them having nodules of bone in their centre, with the exception of a large one, of about the size of a hen's egg, situated on the left side of the organ, which seemed to be composed of a softer substance, resembling softened tubercle; but even in this there were some slight signs of bony degeneration. None of the tumours encroached upon the cavity of the uterus, so as in any way to diminish its natural capacity.

The uterus itself was filled with dark coloured blood, and seemed to have been subject to recent chronic irritation, from the redness of its lining membrane.

The Fallopian tubes were pervious, and the ovaries, to all appearance, healthy.

The cavity of the thorax was preternaturally small, the diaphragm being placed exceedingly high up in the chest; and the lungs were much diminished in size, in fact, to less than half the usual bulk of the healthy organ, but they were not otherwise diseased; they were, however, of a dark colour, and gorged with blood.

The liver was healthy, and did not show any marked signs of recent or former disease; it was, perhaps, a little smaller than natural. The gall bladder was distended with dark coloured bile. The heart was healthy, but large.

The dura mater adhered closely to the calvarium, from which it was separated with great difficulty. The sinuses were gorged with blood, especially the right lateral, which seemed to be in some degree enlarged through the dilatation of its coats. The vessels of the pia mater were unusually large, and distended with dark coloured blood. The section of the brain presented, in various parts, a large number of bloody points, and the choroid plexus and vessels at the base were universally fuller than usual; besides these appearances there was no indication of disease of the cerebral structure or its membranes. There was a slight but unimportant change in one of the branches of the basilar artery, the vessel having become partially closed from a deposition of earthy matter between its coats.

REMARKS.

I have in vain searched through the records of pathological anatomy to find any thing analogous to this singular, and perhaps unique, instance of disease; but I could read of nothing resembling it, and I, in fact, believe that nothing similar to it has ever before been noticed. Thus far, therefore, the case is of a very interesting character.

There have been instances of bony tumours growing in the substance of the uterus, and which have afterwards made their way into its cavity, and, becoming detached, have finally been extracted from the vagina; indeed, there is one case of this kind on record related in Dr. Mcintosh's Pathology, where the patient considered herself *enceinte*, and was thought to be so by her medical attendant, when, at the full period of gestation, that which was considered to be the head of the fœtus progressing from the womb, with well marked labour pains, proved to be one of these peculiar bony tumours; in this case the extrusion of the tumour was immediately followed by the birth of a child, which lived and did well. But even these cases have been extremely rare. It is not improbable, but on the contrary likely, that the tumour in this case originated in this way, and that, from some peculiarity in its situation or from its weight, it afterwards made its way into the cavity of the abdomen, carrying before it the peritoneal coat of the uterus, which covered it while

there; and that the covering of the tumour, and the band which connected it with the uterus, were thus formed by this prolongation of peritoneum. The omentum attached to the other, or extreme part of the tumour, doubtless was the cause of the harassing dragging sensation which she experienced when standing up; the tumour being thus placed in connection with the stomach, and thus acting by its weight in producing these distressing feelings.

Perhaps the symptom most difficult to account for in our poor patient's case was the constant buzzing or roaring noise which had disturbed her so much. The congested state of the vessels of the brain might in some measure have occasioned it; but as this symptom does not occur in most of the cases of congestion which come under our notice, we must refer it to some other cause. How far the very firm and intimate adhesion of the dura mater to the skull might, by preventing the proper distension of the sinuses, and so retarding the circulation through these channels, produce this sensation, I cannot take upon myself to say, but it might do so. This is, however, merely conjectural. Perhaps it might have been in some measure dependant on the ossific change which had occurred in the vessels at the base of the brain.

The difficulty of swallowing is to be accounted for by the œsophagus having become flattened by the approximation of the sides of the tube, owing to the dragging down of the stomach—an effect which would very naturally ensue.

With regard to the protracted constipation, it was evident, on examination, that the bony tumour had pressed upon some part of the small intestine, constricting some portion of its tube, probably the duodenum; but how it was that the interruption, thus occasioned to the passage of its contents, could continue so long without inducing inflammation, it is difficult to say; certain it is, that there were no signs of inflammation apparent during any period of her illness. The preparation of the diseased parts has been placed in the museum of the Royal Berks Hospital.

P.S.—Since writing the above, I have made further researches, hoping to be able to find a record of something analogous to this remarkable case. In Davis's "Obstetric Medicine," Vol. I., p. 665, there is an account of a preparation, in one of the museums of anatomy, in which, he says, "both surfaces of the uterus may be observed to give origin to pediculated tumours of precisely the same character of tissue, of which one, of magnitude considerably exceeding that of its parent organ, projects pendulous by a pedicle into the abdomen; and another, a smaller one, takes its origin by a narrow pedicle from the internal surface of the womb. With the exception of their relative locality, the tumour in this remarkable case, which projects into the cavity of the abdomen, is as perfectly pediculated, and is in its tissue as perfectly a polypus as the one of smaller volume, which is seen contained within the cavity of the uterus. In both cases the constituent tissue is strictly fibromembranous, which is known to be the actual tissue of the greater number of uterine polypii."

The case I have recorded differs from this (which approaches nearer to it than any other I have seen) in two most important particulars. In the first place,

there was no calcareous or ossific change in the tumour; and, secondly, it was pedunculated, the peduncle being composed of the same tissue as the bulk of the tumour, which was not the case in mine, the connecting band of which could hardly be called a pedicle, being composed of a prolongation of the peritoneum, which had invested the uterus, and having no character in common with the morbid bony mass. The cases cited by Baillie, Churchill, Burns, and others, are merely instances of the fibrous ossific tumour of the uterus, which I mentioned as being occasionally found in this organ.

OBSERVATIONS

ON THE

NATURE, PATHOLOGY, AND PHENOMENA

OF

GRANULAR CONJUNCTIVA,

WITH

REMARKS ON SCIENTIFIC TREATMENT.

By EDWARD OCT. HOCKEN, M.D.,

M.R.C.S.L., F.R.M.C.S., &C.

Definition of Granular Conjunctiva.—Forms of the Complaint.—The Symptoms, Causes, Pathology, and Treatment.

Granular conjunctiva might, with more propriety, be spoken of as granular inflammation of the conjunctiva, inasmuch as the condition of the membrane is always to be considered but a part and portion of severe and prolonged inflammation of that tunic, and as never existing distinct from that process. If their inseparable existence be but clearly understood, it will lead to a right comprehension of the pathology of the affection, and scientific plans of treatment. The term "granular" is applicable from the clearness with which it conveys to the mind an idea of the appearance of the conjunctiva—a roughened irregular surface from the presence of minute elevations or granules, not implying any relationship to the process of granulation in ulcers, from which it differs in every point of view, but simply referring to those obvious characters which I have already mentioned.

Definition.—Hence my definition of granular inflammation of the conjunctiva is the following:—A severe and prolonged inflammation of the palpebral portion of the conjunctiva, of either active or passive type, attended by a gradually augmenting and extending papillary roughness or inequality of surface, being of a bright scarlet colour; the granular elevations small, firm, and highly vascular, in active cases, and attended with great intolerance of light, lachrymation, and pain, in advanced stages. In the passive forms the granulations are large, soft, and dark coloured; there is a secretion of watery mucus, and little pain or irritation is experienced.

I have selected extremes to illustrate my meaning, inasmuch as here, as in all other cases, the contrast must be made in them, the intervening chasm being filled up, in nature, by every intermediate grade. No arbitrary limitations exist in nature, but all is indivisible and connected; there are no abrupt terminations or commencements between this or that law, this or that disease, or the varieties of some one affection; they pass into one another gradually and imperceptibly, and only present a striking contrast in their extremes. We should not be surprised, therefore, at meeting with cases in which distinctive features, either active or passive, do not exist, and