ON VASCULAR EXCRESCENCES OF THE MORE EXPOSED PORTIONS OF THE MUCOUS MEMBRANE AND CERTAIN OTHER PARTS OF THE BODY.

By H. BURFORD NORMAN, Esq., F.R.C.S., Surgeon to the North London Infirmary for Diseases of the Eye, and to the St. Marylebone General Dispensary.

THE various elementary textures, or tissues of the body, have been made with much propriety and practical usefulness the basis of certain general nosological divisions and classifications. Thus there have been classified under several heads the diseases of bone, of the skin, of the serous and of the mucous tissues. This system is founded upon the fact, that structures anatomically alike are liable to derangements, both of function and of organisation, exceedingly similar. And thus it happens that the natural history of the diseases of any texture is made complete only by the study of those diseases in the various positions, circumstances, and connexions, in which such texture is found. And so also of any special form of disease of a particular texture: if we wish to learn all that can be learned about it, we must search for the information we desire in the whole extent of such texture. We must not expect to find in the illustrations of a disease of any texture identity in symptoms, objective or subjective, in all situations, for in the textures themselves there are minor differences of structure or position, and the influences to which they are subject; but in the study of the analogous diseases of parts agreeing in their general characters, much light is shed by one upon the other. Not to prolong these general observations, I may at once refer to a particular form of morbid growth of a given tissue—the mucous. Amongst other morbid changes, this tissue is in an especial manner liable to become the seat of *excrecences*, which assume, according to various circumstances, the forms of granulations, polypi, etc. In two former papers, I have alluded to some of the more important of these growths which affect the urethra, especially, that of the female, and the urinary bladder. Now I purpose to connect these with others like them in other parts, in the hope that the consideration of all together may tend to throw some light upon each class, and that the consideration of each class may furnish some general deductions having reference to the whole. Descending from the head to the trunk, it will be found that the portions of mucous tissue forming the outlets or external termini, both of the great gastro-pulmonary and of the genito-urinary divisions of the mucous membrane, are occasionally the subjects of such malformations as are variously termed villous, papillary, or granular condition, excrescence or polypus: that these or similar morbid products are also to be met with in certain other situations which are anatomically and physiologically related to the mucous outlets; that they occur at least under two apparently very different circumstances as to origin, in one class of cases seeming to be quite spontaneous, and in another class having a certain assignable and sufficient cause of growth, although the explanation of the relation of the cause to the effect, or of its *modus operandi*, may be very difficult; and, lastly, that their effects vary chiefly in reference to the function of the part which they affect.

CONJUNCTIVA. Commencing with the mucous lining of the eyelids, we find, *first*, the condition termed granular conjunctiva, or granular

lid; and, *secondly*, vascular excrescences of the conjunctiva. The former distressing condition is one with which, unfortunately, most surgeons are too familiar, whilst at the same time they are painfully conscious that their means of remedying it are at best uncertain, and, to some extent, cruel.

This grave and serious evil, which from its frequency I need not here stop to describe, appears to me to consist *anatomically* of simple hypertrophy of the villi of the palpebral conjunctiva, and, *pathologically* considered, to be the consequence, in a great majority of cases, of the injudicious and unwarrantable use of stimulating applications, especially the nitrate of silver, in the treatment of the catarrhal and strumous forms of ophthalmia—an observation made long ago by Mr. Tyrrell, and confirmed in my experience; and *practically* to be one of the most intractable diseases with which surgeons have to do, short of malignant affection, rarely admitting of a cure but by such means, as entirely destroy the natural characteristics of a mucous membrane, and convert the lining of the palpebra into a firm cicatrix.

I have guarded myself by the expression “in the majority of cases”, from the possibility of being supposed to impute *every* case of granular lid to mal-practice: there are other causes which bring about this malady. I have now under my care a young person, in other respects grievously afflicted, in whom the granulations on the lower lid of the left eye are so large as to project nearly over the edge of the lid. In this case, the cause is a continued irritation extended to the lid from the lachrymal sac or nasal duct, which has been long partially obstructed by a carious state of the os unguis. Here I have the means of knowing, as in a few other instances, that no stimuli have been habitually used, and, therefore, infer that the local irritation of the obstructed lachrymal passages has been enough to produce and keep up the morbid state of the lid, which is now much less marked than it was some months ago, since the passage of the tears to the nose has been restored by the use of a style, which she wore in the nasal duct; and, since a steady, persevering attention to her general health and avoidance of all exposure of the eye during a winter's residence in-doors, while under treatment for angular curvature of the spine, have placed her under most favourable conditions for this result.

This granular condition of the conjunctiva, which it is not proposed to dwell on at any length in this paper, occurs in forms which vary from a slightly turgid and villous state of the membrane, *and more particularly of the palpebral portion*, to one in which the enlarged villi project in the form of separate excrescences, *especially from the looser portion of this membrane* of the eye as it is reflected from the palpebra to the globe. The second form of excrescence of the conjunctiva, Mr. Tyrrell has fully described in the following words:—“These (excrescences), like the morbid growths from other mucous surfaces in the neighbourhood of common orifices, are usually of a gelatinous or fleshy consistence. If arising beneath the palpebra, they produce considerable irritation by their friction during the movements of the globe or eyelid, the pain created being similar to that which occurs from the presence of an extraneous body; but when attached to the semi-lunar fold of the conjunctiva near the inner canthus, or to the surface of the

¹ TYRRELL on the Eye, vol. i, p. 185.

caruncle, very little inconvenience results from them, unless they acquire considerable magnitude. It is in the latter situation that I have most frequently seen them, but occasionally also in connexion with the conjunctiva at its point of reflection from the globe to the lid: they are usually attached by narrow bases, and resemble in colour the ordinary polypi of the nose or pharynx. They possess but little sensibility, and are, I believe, the result of chronic inflammation. I have met with them in the eyes of persons of all ages. The treatment to effect their removal is very simple. The excrescence should be elevated by a pair of forceps, and separated from the conjunctiva by means of the scissors or knife; after which, the nitrate of silver in substance should be applied to the surface of the wound, and weak astringent lotions frequently used. Unless very much neglected, they seldom produce irritation, and the patient is usually led to seek medical advice, more from the inconvenience and deformity they may occasion, than from any suffering they may produce."

I have made notes of three cases which have come under my own observation, affecting severally the semi-lunar fold of the conjunctiva, the upper and the lower lid. In the first situation, in the left eye of a stout, healthy man, aged thirty-six, the little growth had existed about a year and a half, without occasioning any inconvenience; but two days before he consulted me (August, 1847,) it became rather suddenly turgid, and burst, with a little external bleeding, and some effusion under the neighbouring portion of the conjunctiva, occasioning ecchymosis. The growth was not more than a quarter of an inch in length, of a bright and deep red colour, very delicate texture, but slightly sensitive, growing by a little pedicle from the margin of the semi-lunar fold, and lying along the free edge of this membrane upon the globe. In this position (the caruncula and other parts being much redder than natural) it was scarcely perceptible, except the eye was in motion: some little irritation and uneasiness in the part were complained of.

I removed this growth exactly in the manner described by Mr. Tyrrell; and during the week following, the patient remained under my observation without any appearance of its recurring.

This excrescence was spontaneous; at least no cause could be ascertained or suggested for its occurrence. Its becoming turgid, bursting, bleeding, and then occasioning inconvenience, is a new feature in the history of such growths.

In the two following instances the excrescences were thrown up in granulating wounds, a circumstance requiring to be noticed in reference to such productions. In the first, a respectable tradesman, in advanced life, came to me from Lincolnshire to consult me about some tumours in one of his eyelids; they were of the ordinary encysted kind, and the lid was quite disfigured with them. Those that were sufficiently advanced I punctured; and having squeezed out their contents, I applied the point of nitrate of silver to the cavities. One very large and hard, about the centre of the lid, I removed by excision from without. In removing it the lid was penetrated. The external wound healed quickly; the internal one *appeared* to do so, and the patient returned to the country seemingly cured. A few weeks afterwards, he presented himself again to me in town, suffering much inconvenience from inflammation of the conjunctiva, and a disagreeable sensation of some-

thing rough felt constantly in the eye, which was much inflamed as to the conjunctiva, but presented no other appearance of disease. On everting the upper lid, however, the mischief was soon accounted for. An excrescence, attached by a slender and very short pedicle to the lid, and expanding into a cup-shaped disc of one-third of an inch in diameter, which adapted itself to the convexity of the globe by its posterior, and to the concavity of the lid, from which it grew, by its anterior surface, sprung from the point where the lid had been punctured, like a small fungus, of a florid colour. The growth was removed and treated in the same manner as in the preceding case, and with the same effect.

In the second instance of this kind, a bricklayer's labourer, about forty-five years of age, applied to me at the Eye Infirmary four years ago, suffering from conjunctival inflammation and a sensation of some foreign body being between the globe and lower lid, which had existed for some months without advice being sought. Such a body was soon perceived in the form of an excrescence projecting a little above the edge of the lid from below. On everting the lid, I observed that its inner surface was marked by cicatrices forming bands between the globe and lid; from one of these growths sprang a small polype-shaped florid excrescence, about a third of an inch long. The cicatrices were the result of an injury to the conjunctiva from some lime thrown into the eye about a year before. This growth was treated by the same means, and with the same result as before-named.

THE NOSTRILS, PHARYNX, AND MOUTH. Here, in the form of the gelatinous polypi so familiar to surgeons, is a very common instance of an excrescence of the mucous tissue; but I do not wish to include this, any more than similar growths in the meatus auditorius or uterus, in the category of cases now under consideration. Other non-malignant excrescences are found in these parts, more properly coming within the scope of this paper.

In the nostrils, there may often be noticed, by those engaged in practice in the metropolitan charitable institutions, a growth, more or less distinct, situate upon the turbinate bones, and narrowing or obstructing greatly the meatus of the nose. I have seen many instances of this affection: in some, the membrane has been simply thickened and villous; in one instance, it formed a distinct projecting mass in each nostril. In most cases, the affection is accompanied by an increased discharge from the nose, which is thinner than natural; in some, the secretions cannot come forward, and are consequently swallowed, or expelled by the mouth; the voice becomes thick, and the articulation indistinct, as it is in great snuff takers; the mouth is kept constantly open; respiration by the nose is difficult and sonorous; the patient is subject to sensations of suffocation and uneasy sleep and dreams; the shape of the nose is sometimes changed, as it is by ordinary polypi, but this is, in my experience, rare. I have never noticed it strongly marked, except in one case, previously alluded to; and in which, after long local and general treatment proving useless, I at length resorted to operation, and cut the tumours out of both nostrils by means of a hook and blunt-pointed bistoury. In some examples, the disease has appeared to arise from the irritation produced by a diseased tooth, and has subsided on the extraction of the tooth; in some, it has appeared to me to be the consequence of a cachectic condition of the system, and has been benefited by attention to the general health, and by the use of

astringent lotions; in others, neither has the cause been evident, nor treatment of much avail. This disease is not painful, nor does it show in general any disposition to bleed. In the case which I operated on by excision of the growths, the hæmorrhage consequent upon the operations was considerable.

In the pharynx, I have never seen any other form of excrescence than the polypus before alluded to, and a certain granular condition, the consequence of inflammation.

In the mouth, under the influence of various irritating causes connected with the teeth, the gum throws up slight papillary growths or elevations, altogether distinct from the fibrous, cartilaginous, or osseous tumours of this part, sometimes very painful, especially when sprouting up, as they often do, between two teeth, and so subjected to a great degree of pressure. These growths, depending upon some ascertainable irritating cause, whether that be the pressure upon the gum of a portion of gold with which a cavity in a tooth has been stopped, upon inflammation of the alveolus and fangs of a tooth, or other cause, are generally remediable by removing the cause itself; and, during their existence, may be kept tolerably free from uneasiness, by the careful application of the stick of nitrate of silver, which arrests or delays their growth, and diminishes their sensibility. Occasionally, growths of this character assume a considerable magnitude; by their increase, they press upon and loosen the neighbouring teeth, not ceasing to be reproduced, however carefully they are removed by cutting, caustic, or ligature, until the offending teeth are extracted.

Mr. Bell, in his admirable work on the teeth, gives a full and interesting account of this and other tumours of the gum, which will well repay a reference to that work. He observes, respecting the growth in question, "that it never occurs on a part of the gum from which the teeth have been removed", and that "the usual seat of its occurrence is on the transverse process of the gum passing between the teeth".¹ On this account, one of its earliest symptoms which attracts notice, is a slight degree of separation of two teeth, in most cases by the partial yielding of one only; and, on examination, the gum is found to be enlarged at this part, not only swelling between the teeth, but also pressed out, as it were, on the external and internal surface, though in other respects having a perfectly healthy appearance.²

The cavity of carious teeth, in which the pulp has become exposed, is also sometimes the seat of excrescences, some of which are excessively painful, and others scarcely sensitive. According to Mr. Bell,³ the sensitive excrescence seldom admits of any other treatment

¹ BELL on the Teeth, p. 233.

² Since writing the above, a lady under my care, on account of another disease, asked me to advise her upon such a growth. The first molar tooth of the lower jaw on the right side had been broken off in an attempt to extract it some time previously, and the stump remained in the jaw, not projecting above the gum; the second molar tooth was hollowed out by caries; a tumour of the kind named had sprung up between the two teeth, and in its growth tilted over the hollow tooth, into the cavity of which it grew and filled it. The tooth was occasionally very painful, the growth not at all so. I advised her to have the hollow tooth and the stump extracted. The former only was removed, as she had not courage to submit to further operation; but the result has proved quite satisfactory, the excrescence having since completely subsided.

³ Op. cit. p. 207.

than extraction of the tooth; while I am informed by another experienced dentist that he is in the habit of destroying such productions by the application of an exceedingly minute portion of arsenious acid in a drop of creasote, which effectually destroys the excrescence and the internal pulp of the tooth, after which the cavity may be stopped. The non-sensitive tumour may be cut away, although not without occasioning much hæmorrhage; and after this has ceased, the application of caustic, I am informed (though it does not accord with Bell's opinion), will prevent the reappearance of the growth. These productions are of course only similar in appearance and character to those arising from the mucous membrane; they are *not* of that membrane.

EXTERNAL AUDITORY PASSAGE. Here various forms of excrescence are found; some of these, such as the gelatinous polyp and the wartlike fleshy mass, sometimes met with, cannot be called vascular; other forms are highly so. Some of these have origin in the meatus externus, and are occasioned by the protrusion of florid granulations from the narrow orifice, by which an abscess has opened into the meatus;¹ others arise in the form of granulations from the outer surface of the membrana tympani, and a third set from the cavity of the tympanum itself. The first of these varieties seems to correspond very closely with some of the cases that have been referred to as occurring on the eyelids, and to have what may be termed a traumatic origin. The second, I believe, occurs as spontaneously as any other morbid growth, although Mr. Saunders² doubted whether they ever did occur in the uninjured external canal, and referred all those which he saw and related in his work to a prior injury of the tympanum (inflammation and suppuration terminating in partial destruction of the membrane), considering them to be the result of the third stage of inflammation of the middle ear. Many of them do indeed arise in that situation, and are accompanied frequently with disease of the bones. The consequences of these growths in the auditory passage are chiefly felt in various disturbance of the sense of hearing, deafness, noises in the ears and in their appearances, which have been recently very well described in a series of papers by Mr. Toynbee;³ they very closely resemble some of the excrescences of the urethra and other parts, and in their treatment they succumb to the different methods of treatment which have been advised for those. Mr. Saunders recommended their extraction by the forceps. Mr. Toynbee very justly prefers the use of a suitable caustic (*potassa cum calce*), as less likely to do injury to the organism of the ear, and as most conducive to a favourable issue, and because extraction is in truth often impossible.

RECTUM. Here, besides the polypus, of which Mr. Syme⁴ has recorded excellent examples, and of which Mr. Mays, Mr. Curling, and some others, have treated in their works on the rectum, there is met with not unfrequently a morbid condition very similar to others referred to in this paper—a condition in which the mucous coat of that intestine near its orifice is the seat of one or more vascular excrescences of varying superficial area, and greater or less elevation, forming either villous patches or raspberry-like growths, and occasioning (sometimes to a degree that is very distressing) pain and heat in the parts, tenesmus, bloody and mucous discharges, a general irritable state

¹ SAUNDERS. *Anat. and Dis. of the Ear*, p. 24.
TOYNEEBE, in *Med. Times and Gaz.*

³ *Op. cit.* p. 26.

⁴ SYME on the Rectum, p. 100.

of the digestive organs, with great impairment of the nutrition of the body. The origin and cause of these growths are often or almost always involved in obscurity. They show no readiness to yield to any general treatment, but are for the most part like all similar productions, amenable to that which is local—the less severe forms being sometimes cured by cold astringent injections, aided by such dietetic and medicinal treatment as causes a regular and easy action of the bowels; the more severe and distinct growths only yielding to such means as entirely destroy their texture, and produce a thorough change in the structures at their base. Of these means, the strong nitric acid is perhaps the most valuable; and, although it is such a destructive agent upon the tissues with which it comes in contact, proper care enables the surgeon to use it with confidence and precision, so that all its effects shall be concentrated on the part intended to be submitted to its agency.

OS AND CERVIX UTERI. In entering upon the "*debateable land*" of the os and cervix uteri, I wish to say but very little, and only to record the opinion which I have formed from such observations as I have had the opportunity of making, that the so-called ulcers of this part are for the most part at least to be classed amongst the cases now under consideration, in which, under the influence of causes, local and constitutional, the natural structures of the mucous membrane become hypertrophied, preternaturally vascular, and morbidly sensitive, giving rise in the sequel to symptoms which have reference to the functions of the part affected and disturbed by the local disease, as in other instances and in other situations.

It may perhaps be said that in grouping together the various forms of disease referred to in the preceding remarks, I have endeavoured to join together in an unnatural alliance things dissimilar and unconnected. I am not of this opinion. The subject has been long under consideration with me, and it has grown upon my mind as a sound conviction, that the method which I have here adopted of regarding it as a whole, in connexion with the details and individual parts, I have followed a consistent course. I am quite prepared to admit that there *may* be a great difference between an excrescence formed in the granulating process of a wound or ulcer, under peculiar circumstances, and an excrescence which, so far as we know, is spontaneous in its origin, and connected with a sound uninjured membrane; between a granular or villous state of a membrane, the result of irritants directly applied to the part, and a condition apparently similar, which we can trace to no such origin; and yet, even this difference may not be real, and the fact that we can, in any one case, discover a direct cause of the morbid process, may lead on further investigation to the discovery of the hidden causes of those which seem most clearly spontaneous. Everything must have a cause, and some impulse, communicated either from within or from without, must determine the production of every abnormal growth, of the urethra as much as of the eyelid, of the rectum as of the ear; and it is possible that by further careful observations made under this conviction, we may eventually arrive at information more positive than has yet been acquired on the origin of those growths that are now not referred to any but *suspected* or imaginary causes, or enabled to determine that such suspected causes, although at first they were imagined, without particular reason, are nevertheless real and true.

The series of morbid growths that have been here referred to, from the simple granulation to the distinct excrescence, possess, I believe, nothing in their structure which they do not derive from the texture upon which they grow: they are strictly what have been termed *analogous*, as distinguished from *heterologous* formations, and consequently do not come into the category of tumours: they are evidently common to all those more vascular and exposed portions of the mucous membranes which form the outlets of canals, or open upon the surface of the body, and are found also in certain other situations that have been cited; they possess an abundant supply of blood-vessels, and for the most part undoubtedly nervous fibrils also, although in this respect they probably differ much in degree: they are, in some instances, traceable to a local irritation; in others, not so: they vary in form, partly as they are produced upon a portion of membrane closely adherent to subjacent firmer textures, as the tarsal cartilages of the lid, or the bony parietes of the nose; or upon looser portions, as the semi-lunar fold, or other reflected portion of the conjunctiva, the lining membrane of the orifice of the urethra, etc. Again, their form is also much influenced by other circumstances of locality; thus a growth arising between the teeth will naturally, as has been described, bulge out on each side where the pressure is least; and for the same reason, a *growing* body in the urethra or meatus auditorius, must assume a more or less elongated form, as it is less interfered with in an outward direction than in any other. These are, however, not the only circumstances which influence form; some there are, I believe, which are quite unknown, and likely to remain so. What it is which causes most of these growths to bleed so much more rapidly when excised than the membrane itself from which they grow would do, if wounded as extensively, is another point requiring explanation; and yet, again, what it is which endows one of these growths with this property to an extent so much greater than is possessed by others which *appear* equally vascular. Yet the fact remains, and is only at present a subject for speculation. They all possess many common characteristics, and the minor ones in which they differ among themselves are not, I think, greater than in different examples of any other class of morbid growths.

3, Duchess-street, Portland Place, March 10, 1852.

VITAL STATISTICS OF THE ROYAL FREE HOSPITAL.

By THOMAS B. PEACOCK, M.D., formerly Physician to the Hospital;
Assistant Physician to St. Thomas's Hospital.

It has been my intention for some time to prepare a statistical report of the practice of the Royal Free Hospital, during the period that I was connected with that institution: circumstances, however, prevented my doing so when hospital statistics were attracting more particular attention, about twelve months ago, and I have been compelled to delay the work till the present time.

The value of hospital statistics mainly depends upon the facility which is afforded for comparison with the experience of other institu-