I have had the greatest difficulty in making up my mind what subject to choose for the above. Two sessions ago I had the privilege of studying at Vienna, where I took up especially the diseases of the ear both under Politzer and Finkler. Since then I have found it very advantageous in the cases which have come under my notice and more especially requiring the treatment which I have more or less carried out as adopted at the various clinques. Each day after the clinique was over I wrote out a full description of the cases which I had seen and also the treatment adopted, in some cases being fortunate to perform the smaller operations under the guidance of superintendence of the Professors and watching the results of the treatment whether satisfactory or not. I intend selecting a few of the commonest affections of the ear which we are constantly meeting with in every day practice, which is of the greatest
importance for us to know something both as regards the prevention of treatment. I have had the pleasure of studying a number of cases in the clinic at the Edinburgh Infirmary under Dr. McBride which I have found of great value.

The first affection of the ear, of which I have seen several cases, is which I intend saying a few words about, consists of small bloody tumours or swellings which commonly go under the name of Angiomata. They are of a bluish colour and may be seen on one or other side of the auricle, the last case I saw was situated on the inside of the ear. If you apply your fingers to them you can make out more or less distinct pulsation which a very well marked in these Angiomata which appears after the birth of the child. They appear to be made up of a number of
blood vessels which had become very much dilated, in some cases a considerable time elapses, while in others the reverse, till the tumor becomes fully formed — the great danger we dread in connection with these dilated vessels is that of bleeding. When the tumor is small the best and most satisfactory treatment is the application into the tumor of Pauquet’s thermo-camey.

I saw one very large & vascular tumor, tumor with a large vessel running into it treated by Poisier, in which he first ligatured the vessel subcutaneously and had to apply the Cantery three times afterwards, the result was that a large scar formed over the site of the tumor which fell off in the course of time leaving a granulating surface which gradually grew less and less until nothing remained but cicatrical tissue marking the spot where the tumor had been treated.
Another very common tumour of the ear is the so-called Polypus which according to Politzer is composed of connective tissue and very often seen in connection with chronic inflammation existing in the middle ear, taking its origin from the mucous membrane lining the above cavity or chamber although in some cases it may spring from the membrana tympani pretty high up and towards the back. These polypos may also be seen in the osseous part of the external auditory meatus close to the membrana tympani at its upper or back part. They vary as to their size, some being of the size of a pea, whilst others are larger or may even show themselves at the entrance of the external auditory meatus. As regards the structure of these polypos, there are two varieties. The one is the fibrous polypos which consists of, according to Politzer, a number of fibrils in between which are numerous elongated cells, the blood-vessels are not nearly so plentiful as in the variety
To be mentioned later, some of the cells are seen to be in a state of atrophy on account of the pressure to which they are subjected to. The surface of the tumour is generally smooth. The other form is termed the Placenta Polypus. The stroma is made up of a somewhat homogeneous substance with a mosaic arrangement of fibrous tissue enclosing a number of round cells. The surface of the tumour is irregular, on account of the number of indentations. It is covered by a layer of epithelium. These tumours likewise contain blood vessels which are more numerous than seen in the former kind; and appear to grow much more quickly. In order to discover from what part they take their origin it is necessary for us to make use of the probe or other such instrument; we find commonly that those whose aspects present a somewhat pale colour, with smooth surfaces spring from the external auditory meatus, while those presenting a deeper surface arise from the tympanic
cavity, and naturally the former are more accessible to treatment, whilst the latter
on account of their deep origin, are very apt to recur owing to their roots having
been allowed to remain and this especially with those that spring from the lower
part of the tympanic cavity. In the
treatment of this affection it is very im-
portant for us to try to find out the
exact spot from which the polypus
grows. The best way to remove and
growing from the external auditory
meatus is by means of an instrument
which goes under the name of Wilde's
Snare, this latter is pared over towards
the root and having fixed it, a gentle
pull is sufficient to cause its extraction;
if any of the root is left behind
it had better be touched with
Chronic acid, which is very effectual
for the above as well as for those
which spring from the floor of the
tympanic cavity. I have seen Politzer use
frequently a small steel instrument
having at its end a concave convey
ring. The inner margin being made sharp, the ring is pushed in and made to adhere to the fleshy or the latter with its base excised: if any portion of the tumour remains, it is touched several times here and there with the galvanic cautery and as, after each application of the above, vapour forms in the passage he carefully blows this out before re-applying the cautery—; in the case of those large fibrous polypi which have very deep roots he prefers cutting them out or excising them by means of Blake's polypus snare, so as to remove the greater mass of the growth and enable him as far as possible to find out what are its attachments. I need hardly say that it is sometimes an exceedingly difficult thing to find out from what part or parts the tumour originates.

In the removal of the polypi from the external auditory meatus, we may have bleeding to a certain extent, this may be readily stopped...
by dusting a little powdered alum on cotton wool or placing it in the external meatus. We frequently have not an opportunity of using the snare on account of the patients declining the sight of this instrument, but there is another plan of treatment which I have found very efficacious in these patients of which I first saw used by Politzer and that is to dry out the ear as well as possible with a little cotton wool and then to pour into the ear a few drops of warm rectified spirit two or three times daily until the tumours gradually shrivel up or disappear. This of course is a slow process and may take several weeks to produce the desired effect, however it is a form of treatment which answers exceedingly well in the event of no other means at our disposal - the great advantage, as regards the use of this warm spirit, is, that, according to Politzer, it forms no insoluble precipitate with any secretion that may be present.
There is another affection of the ear which we commonly meet with in women occurring on the lobe of the ear, which is a true dermatitis or produced by the mechanical irritation set up by the wearing of earrings. The portion of the ear affected is of darkish red colour and is very much swollen, associated with a certain amount of twinging sensation and in certain cases actual pain may be experienced. We may also have a severe form of dermatitis from frost, in which case besides the ordinary inflammatory condition we may have the formation of blisters which eventually burst. In treating the former we must remove the foreign body causing the irritation and apply cold-water douchings, and where much pain precede a few drops of calendula sprinkled on the clothes will give much relief. When blisters have formed and burst the application of a little Boracic ointment to the affected part will be serviceable.

Again, we may have blood effused on the anterior surface of the auricle by means of a blow on that part, the blood collecting between the cartilage and the periosteum. This part
assumes a blue appearance, somewhat hard to the feel and irregular in shape. There is more or less of a burning sensation in the auricle with pain. As regards the treatment, we should apply cold water cloths or better ice bags, and after the burning or pain have disappeared clothes dipped in lead or sodium solution should be applied. If we are not successful with this treatment, Politzer advises, if the pain or swelling continue, to puncture the swelling to allow the contents to escape and then to apply a cotton wadding compress, but we don't often have recourse to this as the swelling gradually becomes less from the absorption of the effused blood by the cold applications.

Accumulation of cerumen in the ear is of very frequent occurrence. By looking into the ear by means of the ear speculum we see the waxy accumulation, but these plugs may be mistaken by us for pieces of cotton wadding which may have become dislodged from the ear and present the appearance of wax. An accumulation of wax may take place on account of changes taking
placed in the cartilaginous part of the ear leading to a narrowing of the meatus so to the retention of wax, this is often noticed in old people and for the same reason any thing blocking up the meatus as for instance an exostosis. The plug ceases of way, epidemic cells or hairs. Symptoms may be produced by these plugs as for instance noises in the ear, deafness, a sensation of fulness in the ear or even sickness and if the plug is hard then there may be actual pain from irritation of the surrounding parts set up by the pressure of the hard plug. The treatment consists in getting rid off the way, if we find the plug too soft on probing it then we can remove it by passing the muzzle of the syringe well up to the mass of injecting warm water as often as may be necessary. On the other hand if the plug is very hard then it is necessary to soften the mass previous to using the syringe by dropping into the ear two or three times daily a few drops of a solution of Bicarbonate of Soda in glycerine.

Membrana tympani. The drum of the ear has according to Politzer four distinct layers
which is important for us to bear in mind. The fluid is the epithelial layer. In acute inflammations of the membrana tympani, the fluid may be pressed out from the blood vessels in the dermic or second layer. This may cause the epithelial layer to be raised up in the form of ridges, and later on this layer becomes opaque and falls off in the form of scales. There may be a great proliferation of the cells of this layer secondary to an inflammation going on in the external meatus, so that the membrana is rendered very opaque, and the handle of the malleus invisible. The dermic layer is the one that contains the blood vessels. In acute inflammations of the drum, this latter may become quite dilated, in spite of dilatation of the membrana as for instance that produced by the presence of a foreign body, the dilated vessels running along the side of the malleus may be clearly seen. The third or substantia propria is the layer which receives any exudation which may take place in the drum, which eventually is transformed into these white chalky deposits.
which are of such frequent occurrence. The fourth 
last layer is termed the mucous layer, and it is very much 
thickened in chronic suppurations of the middle 
ear.

As a result of mere exposure to cold we may 
have set up an acute inflammation of the 
drum of the ear. The blood vessels become 
ululate and serum is pressed out between the 
epithelial and dermic layers forming little 
blisters which may burst allowing their con-
tents to escape or the latter may become 
gradually absorbed causing the blisters to 
disappear, but if the inflammatory process 
is more severe or involving a larger area we 
may have the formation of an abscess in 
the membrane presenting a greenish colour 
in the upper or back part of the drum. 
Until the blisters have formed there is 
usually a good deal of pain in the ear, 
which patients describe as darting up 
or down or waves are present as well as a 
throbbing sensation in the ear. During the 
formation of an abscess the pain is 
described as excruciating.
As regards the treatment, that depends on the extent of severity of the inflammation. When the blisters have formed it is as well to leave them alone as there is little or no pain, but if we see the case early enough when the pain is considerable it is better to insert a plug of cotton-wood dipped in a little warm oil of lavender and renew this if necessary. When an abscess has formed and the pain unbearable it is advisable to open it with a small lancet as this gives great relief if much more satisfactory than allowing the abscess to burst of its own accord.

The drum of the ear may be ruptured as a result of fracture through the bones at the base of the skull, and in some cases a severe blow on the side of the head has caused it. The position of the rupture in the membrane is generally situated just in front of the handle of the shallows. When a person has his drum ruptured, say, by external violence as a blow in the ear, he complains of considerable pain in the ear, with, at the time of rupture, a loud sound being produced, which is very characteristic. There may
be also noises in the ear; goodmess produced. We may also have a perforation of the drum of the ear secondary to a suppuration going on either in the middle ear or in the external meatus, which may remain permanently or its placed may be taken by a cicatrizing. On examining the drum we find a small hole which is the perforation; through which we can see into the middle ear, the edge of the aperture is covered with a black material which is evacuated blood.

In the case of perforation or rupture of the membranous tympanum if the tuning fork be applied to the parietal bone the sound is heard better by that side whose membrane is affected, on the other hand if the membrane be not ruptured, as in a case I saw lately, but great irritation of the auritory nerve caused by con- cussion of the inner ear while some noises are present in the ear, the result obtained by applying the tuning fork to the parietal bone so that it is not heard on the affected side. The concussion in this case was produced by a young man being thrown out of a machine and landing on
his head. In rupture of the drum if we place one end of the aspirating tube in the patient's ear or the other in another's nostril we will have a jet of air which we can observe as the air comes out through the hole in the drum. When we have to deal with a perforation it is advisable not to allow the outer air to pass into the middle ear through the perforation for thus a plug of cotton wool should be inserted in the ear. In traumatic perforation the eardrum soon becomes covered over with a thin film which ends in a few days in complete closure.

As a result of colds we may have acute inflammation of the lining membrane of the middle ear taking place. We may also have it produced as a sequel of extension from the nasopharynx in the cases of Scarlet fever, measles which is not uncommon. There is according to Billets excitation both into the simultaneous lympani or the lympanic cavity. If we look into the ear we may find the drum present a purple red
appearance or in less severe cases the bloodvessels are dilated both along the handle of the malleus or about the periphery of the drum with the intertwining membrane of a greyish color.

In those acute inflammations of the middle ear we are very liable to have small abscesses forming in the membrane or the fluid passing into the tympanic cavity is chiefly composed of pus cells or sometimes gelatinous in consistence. Politzer describes a emulsion of the membrane, where in account of the great pressure of the emulsion in the middle ear the drum becomes very much weakened so that at certain parts we may have little puncles formed containing accumulations of pus. Patients suffering from this affection have very severe pain in the ear with headache which is more or less constant. The pain is described as being worse towards the evening or is also increased when anything is swallowed or when you press your finger between the mastoid process and the lower jaw or there is a good deal of fever complained of, i.e. the patient is generally feverish. If you apply the lining of the
The side of the head is heard dull on that side where the inflammation exists. After this has lasted for some time, the pain gradually becomes less and less, the injection of the drums begins to disappear and the fluid in the middle ear through time absorbed, but in more severe cases we may have perforation of the drum taking place. In the treatment of this affection, it is better to keep the patient in bed and on a light diet. If the patient complains of pain about the mastoid process apply a cloth of flaxseed over that spot. If the pain is situated in the ear proper then apply a warm poultice on which a little laudanum is sprinkled. When the pain has entirely ceased but deafness is complained of, it is advisable to commence infating the ear once a day with Politzer's bag until the hearing is restored. If abscesses have formed in the membrane tympani, it is better to open them by means of a small lancet.

As a result of suppuration of the middle ear with perforation of the drums we may have a constant secretion taking place from the
latter, there is little or no pain complained of or any other symptoms but the smell from the discharge is most offensive. On examining the membrane, it is found to be very much thickened and of a yellowish colour with abundant secretion on its surface. On account of the great proliferation of the cells of the epithelial layer, the handle of the mallets may be quite lost to view. To get rid of the secretion is effected by the regular expressing out of the ear with warm boracic lotion, if there is any inflammation present or the secretion not obstructing the application of a caustic followed by the syringe is found beneficial.

In acute or chronic catarrhs of the naso-pharynx may affect secondarily (according to Politzer) the lining membrane both of the Eustachian tube or middle ear, in the latter the membrane may become swollen and fluid forced out into the tympanic cavity or cause exudation may take place, resulting in the formation of
adhesions within the tympanic cavity so that we may have the hearing very much interfered with. The membrana tympani may be very much thickened or white chalky formations in the membrane are not uncommon, or in some cases the membrane may be quite transparent so that we may be able, on careful examination, to see the collection of fluid in the lower part of the tympanic cavity with its upper border well defined. Which latter may be altered in regard to its position by making the patient move his head either backwards or forwards, or if we inflate the ear bubbles of air may be seen through the membrane if the latter is transparent. Flitner says that if the eustachian tube is rendered impermeable, say, from its means membrana becoming very much thickened, the effect of the external air is to drive the drum of the ear inwards so that the handle of the malleus is drawn upwards backwards, so the short process of the malleus is pushed outwards thus bringing into view the anterior and posterior folds of the membrana tympani, if we move
Inflate the ear, we can cause the membrana tympani to be pushed outwards, at the same time allowing the other structures which have become displaced to resume their normal position. As a result of the air being prevented from passing along the Eustachian tube, an account of the latter being so much thickened, or the collected fluid in the tympanic cavity, we have great interference with the Conduction of sound so that deafness is a marked symptom, which latter may all of a sudden disappear on account of the Eustachian tube opening out again allowing the free passage of air into the middle ear. In recent cases, the fluid in the tympanic cavity may be altogether in one or two weeks absorbed and complete recovery, but there is a great tendency in that affection becoming chronic. This is very common in young people who at the same time are suffering from Catarrh of the nose, or pharynx, or whose tonsils are enlarged. As a rule pain is not much complained of but there is a disagree-
able sensation of fulness in the head, or noises may be present in the ear together with more or less deafness in the affected ear, and, according to Politzer, the cracking noise produced in the ear during the act of swallowing is due to the walls of the ethmoidal tube covered with secretion being separated during the passage of the air along the tube into the middle ear. It is necessary that the ear be inflated daily for a few days or to be less frequently to get rid of the accumulation of fluids so to relieve the other symptoms as fulness in the head or the deafness, but sometimes the quantity of secretion in the ear is so great that the membrane is bulged outwards a even although we get temporary relief from Politzer's salmi, nevertheless all the symptoms reappear shortly, in these cases it is better to get rid of the secretion by means of a small lancet and after doing so inflate the ear when the secretion is drained out of the middle ear through the perforation in the membra a tympani and removed by a little cotton...
wadding, we may have to inflate for a considerable
amount of time after before the hearing power is restored
to its normal—Politzer says that if we find
that after having removed the secretion that
there is little or no improvement, the deafness coming
back, then in all probability the Eustachian tube is at fault so its mucus membrane
is swollen, or else, adhesions have formed in
the middle ear. When the tube's mucus
membrane is swollen, the secretion has
been removed from the middle ear he
pours a few drops of turpentine into the
Politzer's bag and having passed the catheter
into the nose he causes the vapors which
has formed in the bag to be passed along
the catheter into the middle ear. By
this treatment carried out twice or three
in the week alternately with simple
inflation is very beneficial in diminish-
ing the swelling in the Eustachian tube.
It is of importance in the treatment of
three cataracts, that we examine, as
already mentioned, the pharynx
to see if there is any swelling or dis-
charge there, because three cataracts
are very liable to extend to the larynx and trachea, thickening its mucus membrane and causing secretion to be forced out into the middle ear also may become affected. If we find the mucus membrane of the lower part of the pharynx swollen with a discharge from its surface then the throat should be treated by using constantly astringent gargles, or the mucus membrane if very much thickened may be lined over with tincture of iodine. When we have catarrh of the nose along with the above, inhalations of steam should be used frequently containing creasote or some such medicament with drinking out the nostrils with warm water containing salt along with astringent gargles. If granulations have formed on the posterior pharyngeal wall, Potzger recommends the application of solid nitrate of silver—or if the tonsils are very much enlarged they should be removed. For painting the back part of the throat M. Grave uses a solution of iodine with thymoline or Jodide of Potash.
There is another important affection which is of a very chronic nature and which to a greater or less extent interferes with the power of hearing so that it is an inflammatory formation of pus in the cavity of the middle ear and which secondarily affects the drum of the ear, which in time becomes very much thickened, and even its eardrum membrane entirely destroyed, or as a result of the inflammatory process granulations or adhesions may form in the cavity of the middle ear binding the bones of the latter cavity together so that their mobility is greatly interfered with or altogether interfered so that the adhesions may become so hard as to resemble Calloused tissue. As the inflammatory process is going on actual erosion of the membra nbsp; tympani perforation as a result may take place and after the suppurative has stopped the opening in the drum of the ear may still remain or it may be filled up with osseous al tissue, so this chronic process is very apt to take
place as a result of an acute suppurative inflammation after any of the exanthemata or especially in Scarlet fever. According to Politzer in these chronic inflammations, the disease may extend to the Cranial Cavity & Venous sinuses. These chronic cases are very common among the poor who are badly nourished or whose houses are badly ventilated. The colour of the discharge is of a greenish colour & in some cases may be mixed with blood, & the smell from the discharge is often very offensive. In some cases we may have more than one perforation of the drum and these are found often in shape & situated generally somewhere between the handle of the malleus & the inner border of the membrana tympani. When the perforation is very large we may see the inner darted red wall of the tympanic cavity along with a number of granulations which have formed there. In not a few cases the handle of the malleus may be seen protruding into the perforation or may be drawn in towards the cavity of the middle ear & attached to the inner wall.
If we examine the middle ear very carefully, we may sometimes, on account of the perforation being large, the Promontory or Fenestra Rotunda. When the purulent secretion is going on, if we inflate the ear we shall hear through the auscultatory tube a loud harsh sound produced. According to Polikey in three chronic suppurative cases we may have the cavities which are situated between the tympanic membrane and the neck of the malleus affected with purulent secretion which may destroy the membrane as well as the malleus & incus.

In three very troublesome cases, we very often find on inspection that the external auditory meatus is both swollen of a red appearance & the ear may become excoriated from the irritation set up by contact with discharge and even the glands of the neck may become enlarged. In these chronic cases so long as the secretion produced in the middle ear finds an exit through the perforated membrane there is little or no pain complained of.
but if anything prevents its escape, as for instance a temporary closure of the opening in the membranes, then we find, that the pain, produced by the accumulation of the secretion is complained of in the ear as well as severe headache and great deafness. If dense adhesions have formed in these cases in the middle ear either between the membrane tympani or inner wall of the cavity or in any way have interfered with the free play of the small bones in the middle ear, then we may expect to find no improvement in the hearing. In such cases, if we apply the tuning fork to the side of the head we shall find that it is best heard on that side where the adhesions exist. True chronic suppurations of the ear are very tedious, and even when the secretion has been abated, it may soon reappear if the patient exposes himself to the cold or other influences. Amongst the poorer class, who live chiefly in badly ventilated
hence we are sustained by improper food then we may rely upon having no troublesome cases to deal with. If as a result of perforations we have Cicatrices formed in the membrane then these latter appear as dark depressions if they may be an insensitiveness mistaken for actual perforation but if we inflate the ear we will find that the so-called depression can be pushed outwards beyond the level of the membrana tympani and if we use the aural tube when inflating the ear we will not hear the characteristic sound which is heard when a perforation exists. According to Pottier the Cicatrices if large may become adherent to the inner wall of the frontalic cavity. The adhesions which may form in the upper part of the cavity between the conchal bones may actually become ossified. The prognosis in these chronic supplicative affections of the middle ear depends on the nature of the case.
Politzer says, that if dense adhesions have formed between the eustachian tube, in the membrane as the result of perforations and the inner wall of the tympanic cavity or between the indurated tissues in the above cavity, thereby leading to great or increasing deafness along with the constant smell of mucus in the ear, then these cases are most unfavourable, again in weakly persons and especially those who have a chronic inflammation of the middle ear set up secondary to any of the exanthemata or where the discharge is very abundant along with desolation of the membrane tympani and the formation of granulations in the cavity and a closing up of the eustachian tube, these cases are likewise unfavourable. On the other hand if the discharge is not abundant with only slight perforation of the membrane tympani with consequent closing up of the latter or cessation of the discharge with great improvement in the hearing power so occurring in strong healthy patients then the case is favourable.
In order to get rid of the purulent secretion forced out into a accumulated in the tympanic cavity, we must have recourse to inflation of the middle ear by means of Politzerisation which forces out the secretion from the cavity into the external auditory meatus and after this has taken place make the patient bend his head forward the side and syringe out the ear with a little warm water or warm boracic solution or then apply a little cotton wadding. If the discharge continues offensive then a little Candy's fluid may be added to the above or if we find that portions of the secretion have dried up forming little adherent masses then it is better before having recourse to the syringe to soften them by dropping in a few drops of solution of bicarbon. Nate of soda, about ten grains to the amount of distilled water (Politzer) three or four times in the day, we then find that we can the
more easily remove them. Politzer uses, for aspirations in the external auditory meatus, a soft rubber tube attached to the syringe, and when he wishes to stop the egress, after syringing out the ear with warm Boracic Solution and drying thoroughly with cotton wool, he blows into the ear by means of a glass tube a little dry Boracic powder, and after a few days, he again syringe the ear, and if the discharge be very considerable with an offensive smell he mixes a little Carbolic acid with the above powder. Politzer says that in cases where we have thickening of the membrae with granulations and an abundant exsudation in the middle ear, that it is better first to cleanse out the ear with a few drops of warm rectified spirit allowing it to remain a short time in the ear when it will coagulate the albumen, and the resulting
albuminate becomes soluble in the warm boric solution which caused it to coagulate, the rectified spirit also diminishes the granulations by causing them to shrivel up. After the suppuration ceases and the perforation remains patent, it is advisable to protect the viscid mucus membrane of the middle ear by placing a plug of cotton wadding in the ear especially if the weather be unfavorable. If we find that along with the chronic suppuration the patient complains of pain in the part behind the ear or over the mastoid process then this latter must be painted over once a day with the mixture of iodine. We must no account neglect attending to the general health of the patient, for these suppurations are very common amongst the poor who are badly nourished to live under unfavorable circumstances and amongst those who are consumptives; therefore we must see that they receive
proper nourishment and plenty of fresh air, and if convenient, preparations of iron must be administered, and to those who are deficient in liver oil along with symp. of the body; of iron are found to be very beneficial.

We sometimes meet with a somewhat acute inflammation of the middle ear with the formation of pus. This is seen more especially in children as a result of a blow on the side of the head or simply from exposure to cold or from the specific fevers. The child becomes very feverish, and in some cases I have seen convulsive crises. The external auditory meatus is swollen and presents a red appearance, while the Membrana tympani assumes a dark crimson hue. The handle of the malleus is rarely visible. A little abscess may form in the Membrana tympani, and later on the latter becomes perforated and a pus little secretion wells out. There appears
to be very severe pain in the affected ear which is not remittent but continuous until the perforation takes place. The pain is most severe in the evening and there may be considerable pain on swallowing. Very loud noises are complained of in the affected ear, or probably, according to Politzer, on account of the pressure of the pus secretion on the tympanic cavity on the labyrinthine fenestrae. We often find that on the termination of the convulsions that there is a coincident perforation in the membrana tympani allowing the secretion to discharge itself. If the membrana tympani has become very thickened then the perforation may be delayed whereas if the membrane has become pitted with small abscesses then there may be a rapid perforation of the membrane. If after the perforation has taken place and the pain still continues as bad as ever then probably the deeper structures, viz., the peritonsillar etc. have become involved.
If the case is going to terminate favourably, the perforation heals up, the superficial layer of the membrane drops off in the form of scales, the recesses of the membrane subsides, the mucous becomes visible or the membrane assumes its normal with perhaps one or two chalky deposits. If the case is very bad oedema has formed between the memhrana tympani or the small bones in the tympanic cavity then there will remain permanent disturbance in hearing, or the inflammation may extend to the mastoid process to produce inflammation or caries there with the formation of abscess which ruptures externally leaving a fistula through which explanations of bone may be favoured, or the acute inflammation may pass on to a chronic suppuration of the middle ear.

According to Polities death may be due to Pyemia or thrombosis of carotid arteries I have seen two from extension of the inflammation to the meninges or brain.

Yinis

Robert MacKenzie.