Othematoma.

W.W. Herbert
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The existence of sanguineous tumours among the insane does not appear to have been noticed by any ancient writer. On the other hand however Mischow (quoting Winckelmann and Lykken; Die Krankheiten des Geistes Band 1, page 135) calls attention to the fact that status of ancient athletes have not infrequently been found with deformed Auricles. This deformity would at length seem to have become a sort of distinguishing mark of certain classes of athletes such as wrestlers, boxers, and "parrakotai" or even of the whole class. In the gallery of Munich there are two heads of Hercules having deformed Auricles, and Hector of Troy is so depicted in some ancient statues. But such vascular tumours caused by violence and essentially traumatic in origin must be distinguished from the Othaeumatoma of the insane. These latter were first distinctly described as an appanage of certain forms of mental disease by Breuer of Leipsig in 1834 (Arch. gyneezekrankheiten xiv. Berlin 1834) in Francerous in his brilliant Lectures on Insanity delivered at Berlin in 1838 described the Malady very fully (Gazette des Hospit: for that year), the stimulus of his teaching directed attention to the subject and many important papers both on the Pathology and Treatment of Othaeumatoma subsequently appeared. Among such may be mentioned the work of Baxton (Societe Medicale d'Inssulation 1842) and containing (Arch. general de Medicine, Tome 15. 1842). The latter was the first writer who appears to have made a careful record of the postmortem lesions found in such cases. In the following years the subject was again taken up in Germany by Semmer (Zeitschrift fur Psychiatrise 1847) where curiously enough he calls the affection "an Hypostases". In England Stiff of Nottingham is apparently the earliest writer who noticed the coincidence of Othaeumatoma and Insanity,
(Quoted in Gazette Hebdomadaire 1859). In Italy, Reuys of Milan and in France Thure also wrote on the subject (1847). This series of publications was in a measure supplemented and completed by a judicious résumé and criticisms of the views of previous writers by Fischer, Medical Superintendent of the Hanover Asylum (Allgemeine Zeitschrift für Psychiatrie Hft. 1853).

Important also are the observations of Achille Forville, published in 1859, and of Motet in the same year (Gaz. Hebdom. 1859). The most exhaustive and accurate account of the pathology of Othaeumatoma is given by Weichsel (Frankfurter Gesundheitsblatt Band 1. Page 135 of the German edition; with which may also be compared the notes of a microscopical examination of a case by Barlow (Robertson in Glasgow Med. Journal July 1845). In all recent systematic works on Anomal Surgery the subject of Othaeumatoma is treated more or less fully; and the distinction between the true Othaeumatoma of the insane and the false or traumatic variety, generally recognized. In addition to the references already made to the special literature already made the following may be given:

Heinroth. Jahrbuch, Constat and Eisenmann. 1843.
Mendel. do 45.
Bastien. These de Paris. 1866.
Symptomatology, development, and course of Ovarian Tumours.
Symptomatology, development, and course of 
Othaeumatoma.

Othaeumatoma though more generally found among 
the insane are not confined exclusively to that class of 
patients. Leaving out of consideration certain traumatic 
bleed tumours amongst sane persons there is evidence 
to show that blood tumours resembling in their specific 
character those Idiopathic Othaeumatoma may be 
found where there has been no history either of 
injury or mental disease. Rupp (quoted by Fischis b.c) 
states that he has met with this condition of ears in soldiers 
and others not mentally affected. Zarjewa has seen such 
tumours on wrestlers and calls them "Hématoceles du pavillon
(Anatomie Chirurgicale N. P. 522, and Wilks on football 
players. These however may be considered traumatic Schwarz 
(Fahrbuch b.c) a case in a young boy from no known 
cause
cause. Wilde (p.c.) relates the following case occurring in a printer aged 14. This patient had on upper part of left arm a between Heli and Cunche a tumour the size of a small pea. It was immovable, had a dense, elastic feel, and the colour of the skin covering it was dusky red. It had been several times touched and a quantity of cloudy fluid matter discharged. It re-accumulated several times but eventually healed. In the case of "J H" related by myself (vide Page 21) there was no history whatever of insanity, although that of immunity from violence is not equally satisfactory. Bastian (p.c.) has seen a well-marked example of the idiopathic form of the disease in a boy suffering from "hypochondria." It seems therefore from the above and many other cases which might be cited extremely probable if not certain that idiopathic othematoma may occur in the same. Direct violence may no doubt cause these blood tumours; but in many cases which have been set down as traumatic the amount of violence has certainly appeared very inadequate to explain the specific lesions. Gruber (Ueber Othematomen Schmiets Handb., Band 121, Page 230, 1864) has gone so far as to assert that direct violence can produce othematoma even in the dead subject. This is not in accordance with my own observations. But while allowing that mere violence may at times be a factor in the production of these tumours it will not suffice to explain many important points in their aetiology and pathology. For if violence were a sufficient cause, it is certain that the affection would be more common, met with than it is. It seems therefore in harmony with ascertained facts and reported cases to conclude that othematomas are not confined exclusively to
Development.

Prodromic Stage

Situation of Tumour.
Development.

In the formation and development of these tumours there is a prodromal stage. This however from its shortness, and its not being always well marked, has escaped the notice of many observers. Before the blood has been actually effused and while still within its vessels the integuments of the auricle become red, tense and hot. Pain is also not absent at this stage, as shown by the patient shrinking when touched. I have also noticed accentuated pulsation and throbbing in the carotids and auricular arteries. The surface temperature is also slightly elevated. These prodromata however may last only a few hours and as a rule the affection is not recognised until fully developed. These symptoms were very well seen in the case of M. J. (vide page 24). Osteomata are generally found in the cavity of the Helix, but it is by no means confines itself to this restricted space. Fimosus (i.e.) has seen it displacing the Tragus, invading the Antihelix, the Concha and Antihelix, and even obstructing the auditory meatus. The lobule is seldom if ever affected; and in most cases the boundary line of the Antihelix is well preserved. The tumour may commence at or involve the Concha, the fossa triangularis, and according to typhii the Meatus itself. As the tumour enlarges the ridge and depressions of the ear are gradually obliterated.
Time taken by tumour to develop.
The antihelix may disappear and the space between its roots bulge out and as the swelling gradually increases the whole auricle except the lobe may be involved. The posterior surface of the auricle may next be attacked under the increased pressure of the effusion it becomes more convex, tender on touch, and heightened in colour; while the neighbouring tissues show a tendency to sympathise in the general disturbance of the parts. The skin though at first red, tense and shining is seldom involved or destroyed, and merely reflects the colour of the contents beneath it.

Time taken by tumour to develop.

The formation of an othearactoma is generally rapid. In the case of J. H. it was formed during a night of about eight hours, and did not increase subsequently. In three cases recorded by Cosky (l.c.) the tumour attained its maximum development in 24 hours. In Stigg's cases the appearance was no less sudden save in one in which the tumour did not attain its maximum for two months. Ferrus (l.c.) gives the time required as from eight to ten days; and Robertson agrees with him. The shortest recorded time is four hours. In the cases mentioned as seen by myself development was completed in twenty-four hours with the exception of that of J. H. page 223 which had not attained its maximum until the fourth day. It is therefore probable that the majority of these tumours are developed in the course of a night or between the evening and morning visit to the wards.
The subsequent history of Othnematoma.
The Subsequent History of Ophthalmocoea.

Whether the growth of these tumours be rapid or the reverse, their subsequent history is much the same in every case. About the eighth or tenth day the outer wall becomes firmer and fluctuation less marked. Resolution sets in as shown by the diminution of tension and by the tumour becoming less plastic. Later on it collapses and fluctuation ceases. The colour of the parts change from purple through yellow to white without having passed through the ordinary tints of ecchymosis, a case quoted by Mareé (Annual Med. Psychol. Page 155, 1859) well illustrates this point. In a patient both of whose ears were the seat of sanguineous effusion, another took place in one of the upper eyelids. The latter which was certainly subcutaneous presented in succession the ordinary change viz. exudatous infiltration of neighbouring tissue, diffused ecchymosis, suppuration with return to a normal condition. But in the ears there was complete absence of such phenomena. During absorption the blood seems to remain in a coagulated mass. At first bright and fluid it subsequently divides into two portions, one at the periphery is serous and yellow, the other and central portion is fibrous in character, and of a dusky red colour. In every case in which an Ophthalmocoea has run its course induration and thickening continue permanently in a varying degree. In most cases there is considerable and permanent deformity, the auricle becoming shrivelled and nodose. Hearing is not affected except by mechanical diminution of the meatus. The left ear is the one most generally attacked, next the right, and lastly both. Either ear may be subject to more than one attack and Ferns records a case in which the ear was on the
The Anatomy of the Auricle with regard to the formation of Othæmatoma.
successive occasions the seat of Othameatous. Moreover both the anterior and posterior surfaces of the Annule may be attacked at the same moment. In this rarely occurring form of the disease the Cartilage is completely deprived of its nutrition and mortifies. The resulting deformity is then remarkable, the ear losing all semblance of its former shape and size. Fischer (42) has seen spontaneous rupture of one of these tumours. Heiderrich (quoted by Fischer) in one case found the Cartilage ulcerated. While Wallis records a case in which destruction of the Cartilage was followed by gangrene and death of the patient. In other cases after rupture a fistulous opening has remained from which there has been an ichorous and serous-purulent discharge, and if air be freely admitted to the cavity of the tumour it may become foetid and purulent.

The Anatomy of the Annule with regard to their formation.

A few words as to the Anatomy of the Annule will here be not inappropriate. If a healthy ear be dissected it will be seen that its skin is lined with a very fine and resistant cellular tissue, which can only be divided by the scalpel. On its deeper aspect this tissue adheres to a fibrous surface. If at one or other of the salient portions of the Annule an incision be made down to the Annule, it will be seen before penetrating the latter, that the skin, the adventitious layer of cellular tissue, and latterly a thin and shining fibrous membrane have been divided. The deep aspect of this fibrous membrane, the perichondrium, is in direct contact with the
The Anatomy of an Haematoma.
Cartilage. The latter connection is easily broken; it is only necessary to raise a small portion of the periosteum on the edge of the incision and introduce a director under it. It can then be easily and completely detached from the subjacent cartilage throughout its entire extent, but in some spots this detachment may be more difficult than in others. This periosteum is really a distinct membrane and with a little care it is possible to separate it completely from the skin by dissection of the cellular tissue uniting them. Hence from nearly anatomical considerations while detachment between the skin and periosteum is very difficult, detachment between the periosteum and the cartilage would be comparatively easy.

The Anatomy of an Haematoma.

Now as to the constitution of the Haematoma. The posterior wall of the cyst is constituted by the cartilaginous cartilage. Its periosteum will be found detached and more or less firmly united to the integument. These latter fused together, thickened and altered, form the anterior wall. The opposing surfaces of the cyst are generally covered with cartilaginous excrescences and laminae detached from the parent cartilage. These detachments are due to points of splitting situated parallel to the surface of the cartilage; though in some cases there is reason to suppose they may be new growths. The rupture between the periosteum and cartilage is not as a rule complete inasmuch as small portions are often found attached to the anterior and posterior surfaces of the sac. This condition explains the presence of nodosities and varying degrees of hardness on touch. When the
Their subsequent course after full development.
attachments or adhesions are extensive, the effused blood may be contained between two ill-defined layers of perichondrium. If the swelling be punctured soon after formation and bled, it gives rise to about a drachm of sero-sanguinous odourless fluid containing small dark-coloured blood clots. Later on, the contents become more viscid, and by pressure, fibrous debris and yellow-gelatinous matter can be squeezed out, leaving a well-defined cavity which does not collapse. The presence of the effused blood is due to laceration from violence or to spontaneous rupture of the minute vessels ramifying between or within the cartilage and its perichondrium. By their separation a space is formed which gradually fills with blood giving rise to the external tumour. The changes it undergoes subsequently are those not of ossification but of vital absorption. If, then, in its earlier stages the tumour should be punctured, it will necessarily refill, for though emptied of its contents for the moment, the condition which gave rise to the effusion so far as the vessels are concerned still continues.

Their subsequent course after full development.

Reference has been made (Page vii) to cases where suppuration from fistula and gangrene have occurred. After minute several times repeated no more blood is discharged but in its place a pale serous fluid secreted apparently from the surface of the sac in a manner analogous to that in which callus is thrown out round a broken bone. If suppuration is not set up, and it is a rare occurrence, healing takes place with slight reactive inflammation. The bony places of the perichondrium thicken, and a new layer of cartilage, equal in extent to the detached
Aetiology of Haematoma.
The bronchidrium may be formed 'de novo'. When this has occurred the lumens becomes more rigid and elastic. After the cavity has become emptied of its contents the new layer which often becomes thickened and otherwise altered as absorption progresses will gradually approximate and ultimately come into contact with the true cavity of the amnion. Should this neophalan be of small size it may mould itself to the cartilage beneath giving rise to comparatively slight deformity. If however it be of larger dimensions it cannot conform itself to the opposed surface and necessarily becomes crinkled up and nodulated giving rise to the characteristic appearances seen in long standing cases. Should however absorption of the contents of the lumens take place and that gradually, the bronchidrium has more time to contract and when the two surfaces come into contact they will lie more evenly applied and the resulting deformity is of course left.

Aetiology of Haematoma

Various opinions have been held as to the aetiology of haematoma, nor can the question of its true origin be considered as yet definitely and finally solved. Some writers have held that the effusion of blood depended in all cases upon a mechanical cause such as violence. This view has been advocated by the earlier writers such as Stiff of Nottingham in this country and Serres in France who looked on the affection as a simple subcutaneous extravasation of blood with added cartilage changes. Linnirocher considered it to be a form of syncipelas which might be induced idio-pathetically; the result of the inflammation being separation of the...
Perichondrium from its cartilage. Schwartz held Oraeumatoma to be due to chronic inflammation of the auricular cartilage and perichondrium. This inflammation which is evidently an important factor in the causation of the subsequent phenomena would be due in all probability to malnutrition, the outcome of disease or persisted hereditary force, and localising itself in the cartilage and integument of the ear. This view is strengthened by the fact that the ears of many insane patients show signs of cartilage changes before swelling or other symptoms have appeared. They consist chiefly in the breaking up of the cartilage lamellae into irregular plates or granular fragments with detachment of the perichondrium. Cavities are thus formed between them which vary in size and may contain a few drops of yellow fluid. So the cartilage may undergo actual loss of substance, with of course partial separation from its perichondrium. From these antecedent pathological changes an Oraeumatoma is developed as a consequence. Such tumors are not as has been suggested subvarieties of the Euchondromata; nor is there any evidence to show that they are associated with Athromases of the nerves. It is probable that a morbid condition of the cartilage is a main factor in the production of all true Oraeumatoma. If this be conceded the question arises as to the cause of these cartilaginous changes which experience proves are almost exclusively confined to the insane. Is it possible to connect them directly or indirectly with blood changes, and lowered vitality, due to organic or functional lesions of the nervous centres? Should they once their origin in the first instance to a lowered vitality it might be expected 'a priori' that other tumours, or haemorrhagic effusions, would take place under the same conditions in other parts of the body. This connection is borne
out by the fact that in the insane saucious effusions are not uncommon under the thick horny integuments of the foot, and elsewhere. But were this the sole cause Othaeanomas would doubtless be more commonly met with than they are. I wish to see a condition analogous to Othaeanoma in the cephalaeatomata and Cutaneous succedaneums of new born children; both being alike in having a mechanical origin. There is also evidence to show that in certain states of the nervous system the blood may undergo profound changes. Thus especially in demented and paralytic patients there is a constant tendency to arrest of circulation in various parts, such as the extremities. It is stated moreover by short that the venous blood in paralytic dementia shows an excess of serum and a deficiency of fibrin; the clot when formed being pale and of a spongy character. In two cases where Fischer analyzed the blood the following results were obtained.

<table>
<thead>
<tr>
<th>First Case</th>
<th>Second Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>79.100</td>
</tr>
<tr>
<td>Fibrin</td>
<td>0.003</td>
</tr>
<tr>
<td>Fat</td>
<td>0.009</td>
</tr>
<tr>
<td>Albunen</td>
<td>10.210</td>
</tr>
<tr>
<td>Casein</td>
<td>5.620</td>
</tr>
<tr>
<td>Haematin</td>
<td>0.352</td>
</tr>
<tr>
<td>Excretnes</td>
<td>S</td>
</tr>
<tr>
<td>Loss</td>
<td>1.391</td>
</tr>
</tbody>
</table>

In this analysis the small proportion of fibrin, and the large relative quantity of Albunen and Casein, are remarkable. Of in certain cases this increased fluidity of the blood would exist such a condition would no doubt favour its escape from the vessels, any cause moreover which would produce congestion.
of the head and face might tend if long enough continued to dilate the vessels and parietal sinuses to weaken their walls. The connection between the circulation of the head and ears is an intimate one as shown by their increased vascularity and redness during cerebral congestion, and their pallor during syncope. In chronic cases of insanity, the tendency to cerebral congestion and flushings is, of course, a well-known fact; and under repeated stimulation it is reasonable to suppose that the vessels of the ear would gradually become dilated. Then defective nerve influence whether inhibitory or otherwise may be a direct agent in the production of disturbances in the circulation and respiration. Inhibition of the Vaso-Motor Centre in the Medulla would cause through the Sympathetic dilatation of the blood vessels. Strong emotion would doubtless be a very frequent cause of such Vaso Motor failure. Preparations from exudations within the Brain, or even ossific deposits within the cranial sinuses might also have an effect. But too much importance must not be attached to this as far as the specific lesion of Othaeumatoma is concerned, for that is essentially a separation of cartilage and perichondrium, and not a mere subcutaneous extravasation of blood. This separation of Perichondrium from Cartilage is indeed one of the most difficult points to explain in the pathology of Othaeumatoma. It seems however most reasonable to consider it as due in the first instance to malnutrition. This induces a series of degenerative changes which culminate in disintegration of the cartilage cells, with thinning and partial separations of the nutrient-perichondrium. In searching for an explanation of the undoubted fact that Othaeumatoma are confined practically to the insane and are but rarely seen in some persons suffering from exhausting maladies.
Forms of mental disease in which ophthalmomata occur.
those which involve interference with the circulatory or nervous systems, it may be suggested that insane patients are placed so to speak in a category by themselves. In no other disease do we meet with the same nervous rigth and exhaustion; the same abnormal vascularity of head; the same proneness of the ear to injury; and the same lesion of the blood which the analyses of F. H. H. seem to indicate. In the actual development of the lesion we may assume that the blood is first retarded and at length arrested in the Capillaries of the perichondrium. This arrest is favoured by debility of the auricular repels, by their peculiar distribution, and by their exposure to external agencies, such as cold and injury. Arrest of circulation is equivalent to arrest of nutrition which would be followed as a direct consequence by softening of the cartilage, separation of the perichondrium, and effusion from the unruptured vessels.

**Forms of mental disease in which Othaeumatoma occur.**

The idiopathic form of Othaeumatoma is not associated exclusively with any one form of mental disease. It should be looked on rather as the outward and visible sign of some deep-seated and serious disturbance in the nervous centres generally. Such disturbance may give rise to well marked general dyspasia. Hence such swelling might in priori be looked for in insane patients presenting other symptoms of lowered vitality. Among the latter, may be mentioned Anaemia, general prostration, a tendency to extravasation of blood on slightest causes &c. In many of these patients as met with in Lunatic Asylums the body may not be wasted; although it often is. Food may be multitudinous or even voraciously taken, but assimilating
power is bad. Such symptoms are best seen in those conditions of mental aberration which are especially subacute and chronic in their nature. In statistics of 119 cases given by various writers (vide page 14) I have found that 95 were of the male, and only 24 of the female sex. In 54 cases the left ear alone was involved, in 30 cases the right; and in 35 both ears were affected. In the majority of the cases chronic mania or general Paralysis is seen to be the form of disease; but it is not very uncommon in acute mania and melancholia. In dementia it is rare. Four of the cases mentioned are said to have occurred in same persons; but in at least two of them there is a history of hereditary taint. Hunt (American Journal of Insanity, 1870) gives statistics of 24 cases with a careful analysis of the same. One only occurred in the female sex. In 15 cases the cyst ruptured; and in 4 absorption took place. In one case both ears were attacked; in one rupture occurred, in the other absorption. In the other case it is not stated what took place. He concludes that othæmatoma is almost entirely confined to the male, that it occurs in those forms of insanity which are incurable, also that in the great majority of cases the cyst undergoes rupture rather than absorption.

Schwanth (quoted by Fischer &c) affirmed that the affection was equally common in both sexes. In this however he is opposed by most observers, nor from the analysis of the cases Schwan collected can I accept his views. Hulin (These de Strasbourg, 1864) in 62 cases found 52 in men, and 10 only in women. In explanation of this fact, that it is more common in men than women, it may be stated that general Paralysis is almost entirely confined to the former sex. And the risk of their exposure to violence is also greater. It is most frequent between the age of 30 and 40, and is not a peculiarity of old age.
<table>
<thead>
<tr>
<th>Author</th>
<th>Male</th>
<th>Female</th>
<th>Ear Affected</th>
</tr>
</thead>
</table>
| Lennox Browne, Mania Acute
  " Chronic
  General Paralysis
  Dementia
  Epilepsy
  Macnaghten Jones, Mania Acute
  Subacute
  Relapsing
  Acute Mania
  Epilepsy
  Dementia
  Inebriety
  Hux, General Paralysis
  Mania Acute
  " Chronic
  Melancholia
  Dementia
| 2   | 4    | 8 1 3 10 |
| Lennox Browne, Mania Acute
  " Chronic
  General Paralysis
  Dementia
  Epilepsy
  Macnaghten Jones, Mania Acute
  Subacute
  Relapsing
  Acute Mania
  Epilepsy
  Dementia
  Inebriety
  Hux, General Paralysis
  Mania Acute
  " Chronic
  Melancholia
  Dementia
| 16  | 5    | 6 7 1 3 |
| Stigg, 21 Cases
  Petit, Mania
  Dementia
  General Paralysis
  Cossey, Chronic Mania
  Dementia
  Roissin, General Paralysis
  Arlidge, Mania
  Friedwaich, Dementia
  Clouston
  Hoarder
  Younghoe, "ane
  Turnbull, do
  Lessen, do
  Wilde, do |
| 2   | 1    | 2 1 8 25 |

| Total | 95  | 24  | 30  | 84  | 35  |
Influence of Othematoma on Prognosis.
Influence of Othematoma on Prognosis.

Most writers are of opinion that the occurrence of Othematoma is a bad prognosis. Sir A. Allison remarks that in his long experience he never saw a case recover. His observations already recorded bear out this statement. Dr. Savage of the Bethlehem Hospital says that "in that institution he has never seen a case in which it occurred recover". On the other hand Dr. Lawes says in his clinical lectures that he has only "seen three cases recover out of over eighty cases of Haematoma Muralis" and this great authority in describing the case of a patient suffering from Acute Mania, and in whose case Haematoma had threatened, states, that "he was only one out of about six cases that I have seen where recovery took place after a Haematoma had formed or even been threatened in any degree." Macraughan Jones in referring to his own 15 recorded cases states that 5 have been discharged cured and that there is the prospect of a recovery of a 6th. Hence though an unfavourable prognostic the development of an Othematoma should not be looked on as one of the characteristics of a hopeless lunatic.
Treatment.

Macnaughton-Jones writes page 165 and he argues in an article in his handbook of ear diseases suggests surgical treat-
ment; recommending evacuation of the contents of the
luminae with subsequent compression. The difficulty of
dealing with the elaps of patients in which such luminae
appear must in the great majority of cases prevent any
such interference. It is also to be feared that any such
pressure as could be applied to the ear would be powerless to
prevent the lumina refilling; the contents of which
might then flow into the adjacent of air under so suffuration
and greater mischief follow than if the luminae had
not been originally interfered with. Surgical treatment
in one way or another is indeed recommended by all
the older authors. Tavendale attaches great importance
to constitutional treatment. The diet should be
nourishing and easy of assimilation; while arsenic
should be taken internally. For local measures removal
of the secretion with a soft sponge; and then dusting
on Lycopodium. Of late years however all these
methods of treatment have been more or less super-
seceded by that recommended by Dr. Heaver of the
Carmarthen Asylum (Journal of Mental Science 1876, p. 91).
He advocates the early application of blistering fluid to the
inner surface of the diseased ear; and quotes six cases
in which the best results had followed its use.
Conclusions.

It cannot be said that the cause of oedema of the brain has yet been definitely settled. Some observers consider these effusions of blood to be spontaneous, and symptomatic of either disturbance in the cranial circulation, or of present injurious or inflammatory changes in the brain. The former views are confirmed by the fact that Haemorrhage in all respects similar to those met with in the insane, are also found in some persons. Where so found it is generally in persons who while subject to injury of the brain, are also liable to have their circulation disturbed by violent efforts causing congestion, as in convulsions, and epochs.

In insane persons there is probably a condition of cartilage softening and degeneration coupled with a hyperplasia of the brain which diminishes its elasticity and conduces to tearing of the parts, and to extravasation of blood.

As regards the question of violence as a cause of oedema among the insane, it is certain that there are many cases which cannot thus be explained. No these therefore we are forced to conclude that the pathological changes which precede the formation of the lesions are due to the influence of cerebral disease inducing disturbances in circulation and nutrition. An observation of Gerson Seguier lends support to this view. In a communication made to the Academy of Science on March 16, 1869, he states that he noticed haemorrhages of the ears in two guinea pigs suffering from lesions of the pituitary bodies; and he noted that injury of these bodies could even produce dysencephalous. Hence it may be taken as at least probable that in individuals with brain disease certain structural changes may take place in the brain which may predispose it to haemorrhage.

Page 28.
Clinical Cases.

Under this heading are recorded a few cases of Haematuria, which have come under the author's personal observation, with the view of obtaining further information upon the subject of Haematuria Circulares containing a number of questions had been sent to most of the leading English Asylums. The answers returned were however so meagre and unsatisfactory as to be quite valueless for the purpose of compiling reliable statistics.

Case One.

A man aged 29 came under my observation in November 1885. Patient was of fair, well-built, and apparently in perfect health. Occupation that of managing clerk in a large commercial house, and necessitated perfect mental health. There was no personal or family history of insanity of any kind; nor could a careful physical examination detect functional or organic mischief in any organ. When seen first the tumour occupied the whole upper and outer aspect of the left auricle. It extended upwards to the border of the field, occupied the ridge of the antral, filled in great part of the cavity but did not involve the meatus. Nothing normal on both sides; and no tumours or other subjective symptoms was complained of. Tumour ovoid, about size of pigeon's egg, and of a dusky purplish colour, which could
the nuchal part by pressure. The skin was not tense or shining, nor was the tumour painful. There were no symptoms of constitutional disturbance. No elevation of temperature. Patient stated that the tumour fully developed itself in a night, but that for three days before he had felt the ear hot and uncomfortable. Immediately he noticed it he consulted his usual medical attendant, who punctured it and drew off a drachm or so of blood. The tumour subsequently refilled, and at time of this visit was in no wise diminished. As it seemed useless to again puncture stimulating lotions were prescribed, and prepare by means of a coin and bandage during sleep. The continuous current was also applied daily. This was continued for about 3 weeks, when the tumour gradually subsided. At time of last visit there was still a distinct thickening of the integuments, and bandage, but no deformity.

Case Two.

Mr. N. aged 35. Carpenter. For the last five years has suffered from chronic mania with acute exacerbations. Appetite and nutrition fairly good. Tumour developed between evening and morning visit to the wards. No prodromal stage. It extended downwards and laterally from the tumour of the helix to the meatus. Centrally obscure fluctuation was perceptible. Temperature of external ear 99.4°, and painful on pressure. No alteration in general health. No treatment was adopted and the tumour remained practically stationary for about 15 days, when it began to visibly diminish in size and consistence. The livid purple colour retreated from the edges.
of the tumour to its centre, changing through yellow to white. In about a month from the first appearance of the othaeumatoma, the parts had regained their normal appearance, save for a certain amount of thickening, and nodosity.

Case Three.

Name K. Aged 48. An emaciated and cachectic subject, suffering from Active Melancholia. In May 1866 without previous warning a large Haematoma became developed on the left Auricle. It was much larger than in the preceding case filling up the cavity of the Auricle, and partially blocking up the meatus. Pain and other phenomena were marked; hearing considerably reduced. Maximum development was attained in about 4 days; and it did not sensibly diminish for six weeks. It then commenced to shrivel and as far as the effusion was concerned had disappeared in about five months; the rational ear however did not recover its former aspect, but remained during life shrivelled and misshapen; the upper part of the Concha being thrown into folds. The patient died in the early part of 1866; and the following post-mortem changes were noticed in the affected ear. Integument over Wepas and Antitragus normal; but somewhat furrowed and thinned. Labula and external meatus same as in opposite ear. Fossa of Concha shallower, upper part of Concha shrivelled and bent on itself. It felt shotty to touch. A horizontal incision perpendicular to the plane of the Auricle, and about quarter of one inch above meatus, shewed that the cartilage was much thicker than in the healthy ear.
A cross section of the incision showed a series of layers from within outwards composed of:

1. Thin and subjacent tissue thickened and adherent to

2. A layer of cartilage apparently normal in structure.

3. At the level of Conchia and limited to it another layer thicker than the preceding formed through fibrous tissue, red in colour, and apparently a neoplasm.

4. Most externally and in contact with the latter an irregular line of white fibrous material continuous anteriorly and posteriorly with the red layer just mentioned.

5. The skin of the external surface of the Conchia

Briefly the incision showed two lines of cartilage with an intervening space filled with an amorphous and friable material interspersed with nodules of fibrous tissue. The lines of cartilage were both covered on their external aspect by skin. From the relative arrangement and position of these layers it was evident that the cartilaginous layer beneath the integument on the external surface of the Conchia was not due to an unfolding of the primitive cartilage but really a new tissue formation due to plastic expansion from the surface of the Perichondrium, after it had been separated from its normal support.
Case four.

M.T. Aged 34. A strongly built woman suffering from Subacute Mania. In June 1884 during visit to the board patient requested me to look at her ear, which she said felt very painful. enquiry elicited the fact that she had been struck on the same ear with a slipper on the previous day. The whole ear was heightened in colour, and the temperature sensibly raised. The pulsation in the Carotid and Auricular Kepels seemed to be much accentuated. No sign of an Haematoma forming; but upon the following morning a small one was found in the form of a blister. Applied blistering fluid to inner surface of Prima. Result: size and markings spar well preserved; the part which had been affected remaining slightly thickened.