

suddenly, from the fibrinous mass having been carried forcibly upwards into the infundibulum, and from the arrest in the arterial circulation necessarily resulting from so great an obstruction.

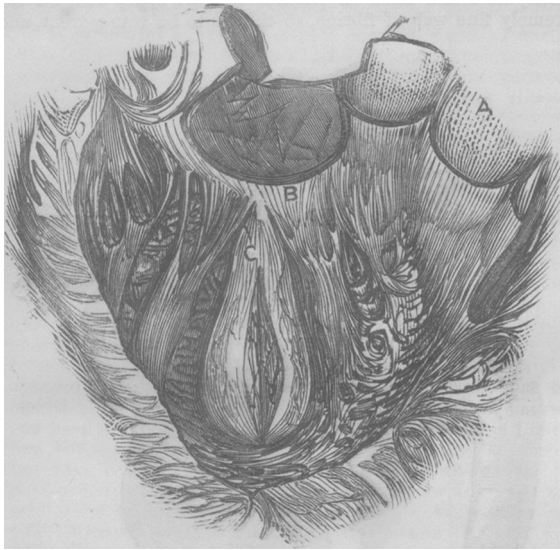


Fig. 6.—Organic Adhesion of a Fibrinous Concretion to the Heart. A. Portion of Aortic Valves; B. Mitral Valve; C. Concretion.

Such, then, are the broad anatomical characters of the fibrinous deposits met with in the heart and great vessels adjoining the heart. I called the first of these varieties a static formation, because it is produced from blood at rest. The remainder, one and all, differ from the static product in that they are the result of a dynamic force; that is to say, they are formed from blood in motion.*

[To be continued.]

* I am indebted to the artistic skill of Mr. Orrin Smith for the excellent woodcuts (except the last) by which the above remarks are illustrated.

Original Communications.

REMARKS ON ACUTE MANIA.

By FREDERICK NEEDHAM, Esq., Superintendent of the Lunatic Hospital, York.

OF all the varied forms of mental disorder which claim the attention of the practical psychologist, none is so extensively diffused as mania, and none consequently so frequently requires the exercise of the medical art. Moreover, no variety of mania is in the same degree amenable to judicious treatment with the acute form, the subspecies of which, with their treatment, form the subject of this paper.

I do not purpose here giving any very minute description of the symptoms of acute mania, other than those which especially illustrate the object I have in view; neither shall I offer any opinion respecting the class of mental faculties which is chiefly and primarily affected by it. I shall simply describe certain heads, with the symptoms peculiar to each, under which I believe all cases of acute mania may be satisfactorily and clearly arranged, and urge certain principles of treatment—modified, of course, according to the peculiarities of individual cases—which I have found to be most successful in arresting the progress of disease, and restoring mental health.

Acute mania, I think, naturally divides itself into three varieties:—1, sthenic; 2, asthenic; and 3, what I would term subacute persistent.

I. *Acute Sthenic Mania*, which invariably occurs in strong, healthy, and robust persons, with considerable vital power and a vigorous circulatory system, commences, as in all the varieties, in many different ways—by irregularities in the affections, by gloom and despondency, or even occasionally by long con-

tinued stupor, combined with sleeplessness, depraved secretions, and sometimes febrile disturbance. These symptoms continue, one or all of them, for an indefinite period, and are succeeded by the fully developed disease, which exhibits, according to the temperament or other condition of the case, many different phases. There will be one or all of the following:—great incoherence of ideas and in conversation; violent excitement in manner and gesture; loud, obscene, and disgusting language; total disregard of decency and cleanliness; and numerous ridiculous hallucinations or illusions. The case will possess, too, the physical symptoms of sthenic excitement; heat of head, and of the surface generally; flushed face; injected conjunctiva; frequently, though not always, contracted pupils; a foul and red, but *not* dry tongue; constipated bowels; scanty and high coloured urine, which affords a copious deposit; together with a full, bounding, and generally frequent pulse—frequent, often irrespective of the muscular exertion which is being used by the patient. In this condition, depletion is evidently needed to lower the circulation and moderate the excitement; but bleeding is, with the very rarest exceptions, utterly inadmissible. I do not here wish to be understood as referring to the local abstraction of blood by leeches; indeed, the adoption of this measure is frequently attended by the happiest results.

If bleeding be out of the question, what are we to do? The hot bath will equalise the circulation, but it frequently fails in reducing the violence of the maniacal symptoms, and is not unattended by danger of sudden and fatal syncope. The remedy upon which I chiefly rely, and from which, judiciously used, I have seen the greatest amount of benefit derived, is tartarised antimony—a drug which has, I think, fallen undeservedly into disrepute, from the class of cases in which it should be used not being clearly defined. It seems to answer only in those cases where you have the full pulse and injected conjunctiva, and other signs of sthenic excitement; where, in fact, you not only have excessive nervous action, but increased nervous power also. My plan in its administration is to give at first a brisk purgative, consisting of three grains of calomel and a drop of croton oil, and to follow this by a grain of tartar emetic in an ounce of water, repeated every three hours, until the bowels are affected; the dose being increased, if the patient be tolerant of it. I have given eight or ten grains without the slightest apparent effect being produced by the remedy, other than the abatement of the excitement. The object in its use is not to produce nausea or sickness, for when these occur early in its administration, I should expect but little benefit from it; as Dr. Bucknill observes, in the admirable work on psychology, written by himself and Dr. Tuke: “The benefit to be derived from it appears to bear a close relation to the tolerance which the patient has for it.” My great aim in its administration is to procure a free and copious action of the bowels. Here, I am aware, I differ from many who use the medicine; but I have, with no exception, found that marked benefit has resulted only in those cases where this effect has been produced. A gentle action should be kept up by gradually diminished doses of the drug; and after the bowels have copiously answered a few times, a full opiate at bed-time, from fifty minims to one fluidrachm of the tincture of opium, will generally have the happiest results in procuring sleep and allaying cerebral irritability. Of course, in the subsequent management of the case, such modification in the treatment will be demanded as seems to be requisite.

II. *Acute Asthenic Mania*. The second variety differs essentially from that which has just been under consideration, although possessing many of the same general symptoms. Here the type is diametrically opposite, and the treatment consequently is far different.

As regards the mental symptoms, there is little change. It is chiefly in the physical signs that the distinction consists.

The incoherence in conversation and in ideas evidently exists as strongly in the one variety as in the other; there are the same violent excitement, and the same delusive fancies, but these are combined here with a feeble condition of the physical system, and deficient nervous power.

In place of the hot head and flushed face, we have, commonly, a cold, clammy surface, and some degree of pallor. In lieu of the injected conjunctiva and contracted pupils, we find a conjunctiva pale and exsanguine, and frequently dilated pupils.

The tongue, which in the former variety was red and moist, is here pale, flabby, and not unfrequently brown and dry. The bowels are often relaxed, and the urine pale and in fair quantity, whilst the pulse, so far from being full and bounding,

is, although often quick, feeble, "watery," and in most instances irritable.

We have thus a set of symptoms of a directly opposite character, and dependent, as Dr. Tuke observes, upon "excessive nervous action with deficient nervous power." With these indications, therefore, we should never, of course, for a moment dream of depletion. Our treatment must necessarily be stimulant and sustaining, otherwise, by still further diminishing nervous force, we shall materially increase the already existing nervous irritability.

In this class of cases, I know of no more valuable remedy than opium combined with some diffusible stimulant, administered after any cerebral congestion shall have been removed by aperients, the use of the *warm* bath, etc. Perhaps the nicest form for administration is the tincture, in doses of half a drachm, with twenty minims of the compound spirit of sulphuric ether, every four hours. This usually procures sleep after a short time, and whilst diminishing the extreme irritability of the brain and nervous system, increases in a remarkable manner the general power of the system.

In many cases, we have a most valuable remedy in brandy, and I have seen a full dose (3 ounces), which acts secondarily as a powerful sedative, produce the most marked benefit to the patients, by procuring sleep and diminishing the excitement to a degree which *à priori* could hardly be imagined.

It is requisite, however, to repeat the caution respecting the period for using these remedies. If applied before the local hyperæmia of the brain be somewhat removed, the probability is we shall only add fuel to the flame, and consequently, instead of relieving the symptoms, render them far more severe.

One mode of equalising the circulation and inducing weariness, is frequently adopted with success, allowing two attendants, each hold of an arm, to walk the patient for a considerable distance, at a rapid pace. By this means, the surface of the body becomes heated, and there is a feeling of weariness induced which aids considerably the action of any anodyne remedy.

During the progress of these cases of asthenic mania, the greatest care must be taken that the patient have a liberal and frequent supply of nutritious food administered to him, as it is chiefly, I believe, in this variety that those alarming cases occur where the sufferer dies most suddenly, after a furious maniacal paroxysm.

III. The third variety of acute mania, upon which I purpose making a few remarks, is what I have termed *Subacute Persistent Mania*. In this class of cases, the symptoms frequently, at the onset, assume considerable acuteness and severity; but these rapidly disappear, and give place to symptoms of much less intensity. There may be here an equal degree of incoherence, yet there is considerably less of the violent excitement and clamorous denunciation than in either of the varieties to which I have referred.

The head is generally cool, save during the temporary exacerbations, which occur at uncertain periods; the conjunctiva is frequently bloodshot, but there is an absence of the bright red colour of the sthenic variety; the pupils are often irregular; the eyelid occasionally droops; the tongue is white and clammy, or occasionally dry and streaked with brown; the bowels costive; urine frequently scanty and ammoniacal; the pulse quick and feeble; and the general appearance is indicative of ill health and cachexia.

But the principal feature in this form is the *persistence* of the symptoms, uninfluenced, apparently, by any plan of treatment which may be adopted. The patient goes on from day to day with these subacute symptoms exhibiting themselves, and his case presents really no special indications of treatment; indeed, even where these do arise, but little benefit seems to result from the remedies used.

In this form of mania, I believe, there is commonly organic, cerebral, or at all events visceral change; and thus death is a frequent result, not so commonly, however, during or immediately after a violent paroxysm as in the second variety, but rather from *gradual* exhaustion, and occasionally by a distinct paralytic seizure.

The ordinary stimulants and support seem to be utterly inefficacious in relieving this gradual sinking, and it appears to be in some measure irrespective also of the degree of severity of the mental symptoms.

The treatment would consist in endeavouring to support the powers of life by generous diet; using counterirritation to the head; giving, cautiously, occasional opiates, and generally temporising, rather than using any vigorous treatment, the

only effect of which would be, by lowering the already failing vital energy, to expedite, what so frequently occurs, a fatal termination.

On referring to my case-book, I find several instances which will illustrate each form of the disease which I have described, I will select one belonging to each of the three varieties.

CASE I. *Acute Sthenic Mania*. Mr. D., a farmer, aged 66, strong, robust, and healthy, was admitted May 13, 1858, labouring under acute sthenic mania. He was incoherent, violently excited, singing, shouting, and furiously striking everyone around him. The head was hot, the face flushed, the conjunctiva injected and bright red, the pupils were somewhat contracted, the tongue was large and red, the bowels were confined, the urine was scanty and high coloured. Pulse 96, full and bounding. He had no appetite for food, but would drink constantly. He made use of the most obscene and disgusting language, and was utterly unable to follow any one train of ideas for long together; the intellectual evidently suffering equally with the emotional faculties. It was evening when he was admitted, so he was put to bed, and a powder, consisting of three grains of calomel and a drop of croton-oil, was given immediately, with a draught, containing two grains of tartar emetic in an ounce of distilled water. He shouted and sang during the greater part of the night; but towards morning his bowels were copiously relieved by the medicines. When I saw him at nine o'clock in the morning, the head was cooler, the face less flushed, the conjunctiva less injected, and the excitement had considerably abated. He was sent out into the yard with two attendants, who were ordered to keep him walking, at a quick pace, for two hours, to bring him back into the house, and administer another draught. The effect of this was to keep up the copious purging; and, to make a long story short, in a week from admission he was comparatively well, and returned home, quite recovered, in nine weeks.

CASE II. *Acute Asthenic Mania*. Mrs. T., aged 38, the wife of an artisan, was admitted September 10, 1859, labouring under acute mania, of the asthenic variety. She was most incoherent and irrational; she could not carry on, even for a moment, any connected conversation, but was continually dancing about the room, singing and shouting in the most excited manner, throwing her face also into the most ludicrous contortions. The head was cool, the pupils were dilated, the face pale, the conjunctiva uninjected, the general surface was moist and perspiring, the tongue was white and pale, the bowels were irregular, the urine was in sufficient quantity, but pale. Pulse 110, feeble, and without power. There was evidently, in this case, but little physical strength. She was ordered to have 30 minims of the solution of hydrochlorate of morphia, and 20 minims of sulphuric ether, each night on going to bed, and a draught three times a day, containing six grains of ammonio-citrate of iron, half a drachm of aromatic spirit of ammonia, and an ounce of infusion of calumba; to have, also, two glasses of port wine, and as much beef-tea and nourishment as she could be made to take, daily. On September 17, I find recorded—"The excitement materially decreased, and the general health much improved. Ordered to continue the remedies, and take the opiate twice in the day". By the 30th of September, the excitement had all passed away. She could eat and sleep well, and was, indeed, convalescent. She left the house, quite recovered, on November 10.

CASE III. *Subacute Persistent Mania*. Mr. H., a master-builder, was admitted November 12, 1858, manifesting all the symptoms of acute mania. Intense incoherence and excitement, restlessness, sleeplessness, violence in manner and language, inattention to common cleanliness and decorum, combined with a cool head, uninjected conjunctiva, brown and dry tongue, hardly any appetite, constipated bowels, foetid urine. Pulse 96, weak and compressible. The pupils were irregular, the right being somewhat contracted. He was ordered to be taken round the airing-ground, between two attendants, for a considerable time, to have an aperient powder; and, after the action of the bowels, a draught, containing two ounces of brandy and forty minims of the solution of morphia. In the morning he was somewhat quieter, and his pulse had improved slightly in power and regularity. This treatment was continued for several days, with varying effect; other modes were also adopted. He was allowed an unlimited quantity of beef-tea, and eight ounces of wine, daily. Counterirritation was applied to the head; but, in spite of all, he gradually became exhausted, the symptoms having speedily become much less acute, and died one month after admission.

A *post mortem* examination discovered in the brain traces of foregone subacute inflammation; and there were also, in the lungs, the remains of previous inflammatory action.

ON THE TREATMENT OF SCALDS OF THE GLOTTIS.

By JOHN SLOANE, M.D., Leicester.

DURING a residence of seven years and a half in two large county hospitals, I have seen six cases of scald of the glottis in children, from attempts to drink boiling water from the spout of a kettle. As, in five of these cases, the untoward symptoms which result from this injury appeared to me to be effectually controlled by the treatment adopted, I believe I shall do some service by directing the attention of the profession to it. I shall briefly describe all the cases which have fallen under my observation.

CASE I. *Scald of the Glottis succeeded by urgent Dyspnœa: Tracheotomy: Pneumonia: Death.* Dec. 27th, 1852. Robert Johnson, aged 3 years, of Radford, was admitted into the General Hospital, Nottingham, under the care of Mr. Eddison. The child was stated to have very recently attempted to drink boiling water from the spout of a kettle. The breathing was easy. The mucous membrane of the mouth was congested, and over the posterior parts there was a number of white patches. He was ordered to take every two hours a teaspoonful of a saline mixture containing one-sixteenth of a grain of tartar emetic; also every two hours a grain of calomel; an hour to intervene between the dose of the mixture and the powder. About three hours after admission, rapidly increasing dyspnœa came on, with crowing inspiration and some lividity of lips and countenance. He was ordered to have the air which he breathed saturated with steam. This was accomplished by putting the child in a small ward, in which water was boiled in an open vessel, the steam from which escaped into the apartment. Six hours after admission, the dyspnœa having become very urgent, Mr. Eddison performed tracheotomy, making the opening in the upper rings of the windpipe. A tube having been inserted, a considerable quantity of tough mucus was expelled, and in a few minutes the patient was asleep. Flannels, wrung out of hot water, were placed over the opening; and the medicines were omitted.

Dec. 28th. He slept soundly during the night. Some mucous râles were audible over the chest. On attempting to swallow a little tea, it was returned by the nares. He was ordered to have injections of beef-tea every six hours.

Dec. 29th. The patient swallows greedily. The mucous râles are diminished. The enemata were omitted. He was ordered to have beef-tea and a mixture of tea and milk.

Dec. 31st. The tube was removed. Moist crepitation was heard all over the chest. He takes his beef-tea well.

Jan. 6th, 1853. He progressed favourably till last night, when the effusion into the bronchi became much increased, accompanied with considerable dyspnœa. Steam was constantly poured into the room, apparently with much benefit.

Jan. 7th. He was much better.

Jan. 10th. The dyspnœa increased very much in the night. The opening was enlarged downwards, without relief. He died to-day.

The dissection revealed considerable congestion of the epiglottis, larynx, trachea, and bronchial tubes, with splenisation of the middle lobe of the right lung, and of the antero-inferior border of the left. The lower lobe of the right lung was much congested, and did not crepitate on pressure. A copious effusion of mucus was found in the bronchial tubes.

CASE II. *Scald of the Glottis: Urgent Dyspnœa: Recovery.* March 24th, 1854. Robert Payne, aged 2 years, was admitted into the General Hospital, Nottingham, having an hour previously attempted to drink boiling water from the spout of a kettle. On admission, his breathing was slightly croupy in character. He was ordered to take a grain of calomel every hour; and a saline mixture, containing one-sixteenth of a grain of tartar emetic, every two hours. About three hours after admission, four leeches were applied to the front of the neck. About four hours after he was brought to the hospital, the dyspnœa had become very urgent, and Mr. White was consulted about the propriety of performing tracheotomy. He refused to sanction this operation, stating that death almost invariably resulted; whereas cases submitted to the treatment being carried out in this child frequently recovered. Twelve hours after the accident had happened, Mr. White, the house-

surgeon, was called to see the boy; and the breathing was then so very difficult that Mr. White considered him in a hopeless state. He, however, shortly after began to improve; and, on the 26th, the breathing was still crowing, but much easier than on the preceding day. On the 29th, he was discharged, quite well.

CASE III. *Scald of the Glottis: Dyspnœa: Recovery.* March 15th, 1856. Sarah Collins, aged 3, was admitted into the Leicester Infirmary, under the care of Mr. Paget, having five minutes previously attempted to swallow some boiling water from the spout of a kettle. Some grey patches were visible on the inside of the mouth. The breathing, on admission, was quite easy. She was merely ordered to take a little saline mixture every two hours. At midnight, six hours after admission, I was called to see her; and the breathing was now difficult and noisy. There was no lividity of the lips, or of the countenance. She was ordered to have three leeches over the larynx, to take a grain of calomel every hour, and one-twelfth of a grain of tartar emetic with each dose of the mixture.

March 16th. She was sick after the first doses of the antimony. The dose was therefore diminished to one-sixteenth of a grain. The child was allowed beef-tea and milk *ad libitum*.

Nothing worthy of note subsequently occurred; and, on the 18th, she was discharged cured.

CASE IV. *Scald of Glottis: Dyspnœa: Recovery.* Jan. 13th, 1858. S. Johnson, aged 2½ years, was admitted into the Leicester Infirmary, under the care of Mr. Paget. The patient, a healthy boy, about an hour before admission drank some boiling water from the spout of a tea-kettle. The water was "steaming hot". He spat it out, and rolled on the floor, screaming. On admission, his breathing was easy. His mouth was not examined. He was ordered to take a grain of calomel every hour, and one-sixteenth of a grain of tartar emetic in a saline mixture every two hours. He was admitted at six o'clock in the evening.

Jan. 14th. I saw him at midnight. His breathing was then slightly laboured and noisy. Between one and two o'clock this morning, he began to vomit; and, during the next four hours, he vomited three times. About six o'clock, the bowels were well cleared out. After my midnight visit, the mother informs me that his breathing became gradually more noisy and laboured till about six, when it was quite croupy. He then began to improve; and his breathing at noon this day was perfectly easy. In the evening, he was discharged cured.

CASE V. *Scald of the Glottis: Treatment by Calomel and Antimony: Dyspnœa thirty hours after the Accident, the Calomel having been previously omitted: Recovery.* March 20th. Alice Hill, aged 3, was admitted into the Leicester Infirmary, under the care of Mr. Paget, having drunk some boiling water from the spout of a tea-kettle. She had been always a healthy child, but, for a week previously to the accident, was rather "feverish", although able to go to school. The child was ordered the calomel and antimony, as in the preceding case.

March 21st. The breathing is perfectly easy, and the child seems quite well. After the medicine had been taken twelve hours, it caused sickness. For urgent reasons, the mother was allowed to remove her child from the Infirmary. The calomel was omitted, but the antimony was continued.

March 22nd. At twelve o'clock last night the breathing began to be laboured, and it has since been gradually becoming worse. The respirations are forty in the minute, loudly sighing, sometimes slightly crowing. The eyelids are half closed, the head is moved forwards with each inspiration. There is no lividity of the countenance; no cough. She has had no antimony since three o'clock this morning, as her supply of medicine had become exhausted. She was readmitted. The calomel and antimony were repeated, as at first.

March 23rd. The breathing this morning was perfectly easy: She remained in the Infirmary for seven days longer, on account of an attack of diarrhœa. She was then discharged, cured.

CASE VI. *Scald of the Glottis: Dyspnœa: Recovery.* November 28th. Elizabeth Smith, aged 3½ years, was admitted yesterday into the Leicester Infirmary, under the care of Mr. Paget. She is a healthy, well developed child, who had had no previous illness. Yesterday, she attempted to swallow boiling water from the spout of a kettle. She began to have noisy breathing about five hours afterwards. When she was brought to the Infirmary, four hours after the commencement of the dyspnœa, the breathing was slightly crowing, and difficult. Three leeches were ordered to be applied at the upper part of the sternum, and a grain of calomel was prescribed, to be