apes. The skull was remarkably thin in one case, contradicting Vogt's statement that it is thickened in such conditions, and in another case (25 years of age) all the sutures, even the spheno-basilar, remained open, thus weakening Virchow's hypothesis, which ascribes microcephalic deformity to premature closing of the sutures. The peculiarities noticed in the rest of the body were, some of them, simian in character, as the increased length of the fore-arm and phalanges, and the great development of the external ear; but most of them seem to point rather to the negro race (yellow colour of the skin, prognathism, square shape of ear, retreating chin). One of these idiots resembled an ape in his habits, but the rest did not, and another (who had received the nick-name of the "man-rabbit") had many of the habits of rodents, although it appeared that he had had no opportunity of imitating them; thus he stamped with one foot when frightened or when beginning to walk, he would not sit down, but propped himself in a corner of the room; his favourite food was uncooked green vegetables, which he ate like a rabbit.

Dr. Raggi describes a form of *Keratitis* as frequent in cachetic lunatics, particularly in cases of pellagra which are tending to a fatal issue. An opacity is perceived on the cornea, which in a few days spreads through its whole thickness; softening follows, when the aqueous humour escapes, and the iris projects; both eyes are usually affected in succession, without any apparent pain. He looks upon this affection as "neuro-paralytic," produced in the same manner as the corneal ulceration which follows experimental section of the trifacial. Since in this artificially produced keratitis protection of the eyes preserves them from destruction, he has tried keeping them firmly closed by bandaging, in the first appearance of the disease, and he finds it the only serviceable treatment. He might have supported his practice by Trousseau's precisely similar experience of the ulcerative keratitis which occurs during the course of enteric fever.

We have received the prospectus of a new periodical, the "Rivista Sperimentale di Freniatria e di Medicina Legale," which is to be published every two months at the Asylum of Reggio-Emilia, under the direction of Professor Livi, whose name has been frequently mentioned in these pages. It will be devoted to the practical study of insanity and of forensic medicine; the staff of contributors appears to be a very strong one, and we trust, therefore, that it may have a long career of usefulness before it. J. R. G.

---

4. *American Retrospect.*

By Joseph J. Brown, M.B., M.R.C.P.E., Assistant Physician Royal Edinburgh Asylum.

American Journal of Insanity (July).—Dr. John P. Gray gives a condensed account of his pathological and microscopical investigations of 52 cases of insanity. He states that the vessels, nerve cells, and

https://doi.org/10.1192/bjp.21.93.143 Published online by Cambridge University Press

neuroglia undergo changes before marked impairment of the nerve conducting element can be detected. Increase of interstitial matter, multiplication of connective fibres, and diminution of connective nuclei, are prominent features of change. In chronic cases the increase of neuroglia takes place more in the gray matter than in the white, and is more marked in the anterior regions of the brain. This increase may be in connection with the capillaries, or more generally it occurs in localised regions, and circumscribed in walls formed by condensed minute connective fibres. These masses are granular, friable, and ultimately may become serous. They originate in the interstitial elements, and by mechanical pressure cause absorption of cells and fibres. The cavities thus formed constitute the Gruyère cheese appearance, and are to be distinguished from cavities formed by hemorrhage, by the absence of blood-staining of the surrounding tissues, and by their non-connection with vessels. In general paresis the first changes begin in the vessels, thus accounting for epileptiform attacks. The change is first noticed in small portions of the adventitious coat of the arterioles and larger capillaries, and may go on to involve ultimately the whole circumference of the vessels. The nerve elements next to the vessels become affected by multiplication of connective fibres and molecular granulations. In epileptic insanity pigmentation of the multipolar cells was a well-marked and constant lesion. In an acute case of syphilitic insanity profound fatty degeneration was observed besides the other lesions of acute insanity. In every instance the capillary system was affected, and appeared to be so primarily, though this was best observed in the epileptic and syphilitic cases. The fundamental elements were atrophy, and a hypoplasm; but in acute cases the atrophy occurs more rapidly, and without the formation of lymph, thus indicating the non-inflammatory character of the process. The Doctor next discusses colloid degeneration, and goes on to state that his investigations prove what most pathologists recognise—that the lesion in insanity commences first in the vessels, and secondarily the cells, fibres, and neuroglia become affected in consequence of the disturbed nutrition. In support of this view the author quotes a case of mania of a few days' duration, where granular masses (corresponding to the granule cell of the Germans) were observed both on the inner lining of the vessel and between the wall and the lining to an extent sufficient to cause thrombosis. In another case of longer duration this condition was seen to a still greater extent, not only being confined to the vessels, but scattered through the brain substance, and assuming the form of colloid bodies. The amyloid bodies formed in chronic insanity, and situated along the course of the vessels, furnish another proof of where the lesion first commenced. These changes interfere with the blood supply, consequently we have the other elements becoming affected. Should these granular bodies become absorbed recovery takes place, but if, on the other hand, they do not get absorbed, or if they increase,

https://doi.org/10.1192/bjp.21.93.143 Published online by Cambridge University Press

then chronic insanity is the result. Dr. Gray also points out the great similarity of the histological changes in the different forms of insanity, and from this fact is inclined to think that we have most likely only one diathesis to contend with, manifesting itself under different phases in its progress and results. From his observations he concludes that insanity is a physical disease of the brain, and that the mental phenomena are symptoms; also that the variety and changes of these symptoms are to be explained, not by the variety of the lesions, but by the special parts of the cerebral centres affected.

The October number of this journal contains a full report of the proceedings of the Association of Superintendents, and amongst various papers read is one by Dr. Ranny on "The Use of Restraint in the Treatment of the Insane." He is fully of opinion that without the use of moderate restraint it would be impossible to manage an asylum with any comfort or credit, and this view was fully approved by the majority of the Association. The Doctor states:—

> With strong inclinations towards non-restraint, or to the least practical use of restraint, it has not seemed to be quite wise, although possible, to dispense with it altogether. Every now and then cases arise, in the treatment of which it proves to be a valuable, if not indispensable auxiliary in the treatment. In active mania, so common a form of insanity in this country, characterised by violent, destructive, and mischievous propensities, and a remarkable insensibility to moral influences, personal kindness, and everything that may be done for their welfare, as well as to almost every sense of delicacy and refinement, we may see, after weeks of useless effort in all other directions, upon the application of some mild form of restraint—the camisole, or a strong linen frock with continuous sleeves, or the use of the crib bed—the boisterous state exchanged for one of great composure, the attention more easily attracted into healthier channels, the mental operations become more coherent, and physical reaction more natural, while the brain and nervous system get the needed rest, the physical functions are better performed, and thus a state of progressive improvement inaugurated. In the case of suicidal patients, such restraint as is implied in the use of the covered bed, or crib, seems to me eminently appropriate at night, and affords a full equivalent for watching, or other supervision, and it is less liable to abridge sleep than any other measures, affording the needed security.

The Association discussed the beneficial effects of various medicinal remedies, and from what can be learnt of the different opinions of the members chloral hydrate seems to be their favourite hypnotic, though regarding the safety of its administration some gentlemen are very dubious. The Rhamnus Frangula is also a medicine much used, its action being laxative and tonic; Dr. Andrews uses a fluid extract of the drug, and finds it most beneficial in cases of habitual constipation.

The Psychological and Medico-Legal Journal for August.—Dr. Hammond [on Morbid Impulse] relates a series of very interesting and illustrative cases, and states that Morbid Impulse may arise, 1st. from *suggestion*; under this division he quotes a case of a gentleman destroying the dresses of several people with sulphuric

https://doi.org/10.1192/bjp.21.93.143 Published online by Cambridge University Press

acid, the destroyer acknowledging that the handsome dress acts much as a red cloth does to an infuriated bull. 2nd.—The impulse may arise from *imitation;* this cause is a very pregnant source of Morbid Impulse and is well illustrated by the case of the medical student committing suicide by wounding the femoral artery, and being imitated by Horace Wells, suggestion being the cause of the first, imitation that of the second. 3rd.—The Impulse may be due to *habit.* Under this division the author says, that after a morbid impulse has once been felt or yielded to it becomes more difficult to control, and he goes on to quote the case of a lady, who, after experiencing pleasure in seeing a shoe burn in the fire, felt an uncontrollable impulse to burn something else, and gradually yielded to the desire until she became most destructive and ruinous. 4th.—Hereditary tendency is a cause not so much in its direct transmission, but the children of parents suffering from some form of nervous disease, may manifest the hereditary taint in the form of morbid impulse. Regarding the treatment, Dr. Hammond finds that in some cases where impressions stronger in their influence than the morbid impulse can be made upon the minds of the affected individuals the impulse is subdued. Judicious discipline is also believed to be a most beneficial form of treatment, more particularly in homicidal impulse. The morbid impulse may also in some cases be overcome by some analogous but harmless occupation in which the impulse expends itself.

The same Journal for July contains an article by Dr. Hammond, on the effects of alcohol on the nervous system, in which he demonstrates by experiments on himself and on dogs its physiological effects, which are briefly summed up under three heads, viz:—

1st. Period of excitation—uncertainty in the movements, acceleration of the pulse and of respiration, contraction of the pupils. 2nd. Period of perversion. Muscular paralysis, beginning in the posterior extremities; irregularity of pulse and respiration; dilatation of the pupils. 3rd. Period of collapse,—complete paralysis of motion, anæsthesia, feebleness of the pulse and of respiration, stoppage of respiration and of the heart's action; death.

He believes alcohol to be a food, in that it retards the destruction of the tissues; and also demonstrates that it has an affinity not only for the brain and spinal cord, but also for the nerves of the body, and having this special affinity for the nervous system, its abuse leads to diseases of the most varied nature. Acute alcoholism, the author states, is of two varieties, the one is due to blood poisoning from excessive use of the article; the other results from the sudden withdrawal of it, when the system has become habituated to large doses. In the first form we have frequently convulsions occurring, which we do not find in the second. Regarding the treatment of the first variety, stimulants ought not to be given, but good diet, and such remedies as will act on the excretory organs, to eliminate the

https://doi.org/10.1192/bjp.21.93.143 Published online by Cambridge University Press

poison from the system; while in the second variety, moderate stimulation is beneficial, by means of alcohol, opium, or both combined.

Chronic alcoholism is divided into four groups; the first is characterised by tremor and unsteadiness of the upper extremities, subsequently the lower extremities, and then the muscles of the trunk, the phenomena being most marked in the morning. This type corresponds to Huss' paralytic form of chronic alcoholism. The 2nd group is the anæsthetic form, and is distinguished by perverted or lost sensibility, first of the extremities, afterwards of the trunk. With the anæsthesia there is also more or less loss of motor power. The affection is frequently only found on one side of the body, and the author gives an illustrative case, where paralysis of sensation of one half of the tongue existed, while that of the other half was normal. The 3rd form is characterised by convulsions, generally accompanied by impaired sensibility and tremor as well. The 4th and last variety is characterised by hyperæsthesia of the skin and other special organs of sense. Though in all the forms we may have anomalous symptoms yet the intellectual qualities rarely remain intact; thus, we have delusions, illusions and impulses of the most dangerous nature, accompanied by headache, vertigo, sleeplessness, &c., all of which give evidence of the extent to which the nervous system is affected. The author then relates a series of pathological conditions the result of excessive use of alcohol, and concludes his paper by some remarks on the value of alcohol as a medicine, when used with care and caution.

The October number of this journal contains a short paper by Dr. Hammond on the action of sulphate of quinine on the intra-cranial circulation. From experiments on himself and on animals, sufficient facts are obtained to prove that this drug causes cerebral hyperæmia. As the experiments are of much interest and value we give them fully:—

I resolved to take quinine myself, and to have my friend Dr. Roosa, whose abilities, as an opthalmologist and aurist, are indisputable, examine the fundus of the eye and the tympanum before administration of the quinine, and during the continuance of its effects. The report in his own words is as follows:—

Vision normal - - - -	$\frac{20}{20}$
Refraction - - - - -	Emmetropic
Pulse - - - - - -	90

Ocular conjunctivæ white, decidedly free from hypæmia, Palpebral congested at outer and inner canthus. Has no tinnitus aurium. Membrana tympani entirely free from evidence of vessels. No congestion along handle of malleus. Opthalmoscopic examination of both eyes reveals a remarkable clear optic papilla on both sides. Arteries and veins, vertical and horizontal vessels clearly cut, and whole popilla sharply defined, rather paler than congested.

Took grains x sulphate of quinine at 8.30. p.m. At 9 p.m. ocular conjunctiva is congested at outer and inner canthus. Palpebral conjunctiva markedly congested over whole surface. No change in optic papillæ or drum heads. 9.15. Surface of optic papilla pinkish; arterial vessels seem more distinct. No change in appearance of drum heads, no tinnitus aurium. 10. Head feels full, left ear rings; auricles burn; face is decidedly flushed; auricles red, especially lobe of right, where

https://doi.org/10.1192/bjp.21.93.143 Published online by Cambridge University Press

there is localized congestion that is so marked as to resemble an ecchymosis. There is now a vessel along each malleus; optic papillæ are pinkish. Pulse 84 and fuller. 10.30. p.m. Right drum head is very much injected along handle of malleus and upper margin. Left less so, but yet injected. Both papillæ very pink, left more so than right. Face flushed, eyes suffused, ocular conjunctiva decidedly congested. Slight head-ache; tinnitus in both ears. 11. Redness of auricle diminishing, especially the circumscribed spot on lobe of left one; face still flushed, tinnitus continues; no headache; feels exhilarated. Drum heads still injected along malleus; not more so, however, rather less; optic papillæ have a decidedly pinkish hue; no more lateral vessels seen, however; right is especially pink; tinnitus still continues; vision normal.

To determine the question with even greater certainty the doctor says—

I trephined a medium-sized dog, and screwed a cephalo-hæmometer into the opening in the skull made by the trephine, so that the fluid in the glass tube stood at zero. I then introduced into the cellular tissue two grains of sulphate of quinine, dissolved in water acidulated with sulphuric acid. This was done at half-past 3 o'clock p.m. At 3.35 the fluid had risen one degree on the scale. ($= \frac{1}{10}$ inch.) It continued to rise gradually but steadily, till at 4.10. it had passed over ten degrees ($= 1$ inch of the tube). At 4.30., one hour after injection of the quinine, the fluid was at $+ 15°$. It continued at this point till 5.10., when it began to fall, and at 8.15. was at zero. It remained stationary for over an hour, at no time falling to the minus division of the scale. The stage of excitement scarcely lasted 15 minutes. It was succeeded by a state of sedation, during which the salivation was excessive, and the animal appeared very much as if under the influence of a full dose of alcohol. As the normal condition of the dog was regained, the fluid fell in the tube, and reached zero almost simultaneously with the disappearance of the symptoms of intoxication. I repeated the experiment on different dogs with variable doses of quinine, from two grains to fifteen, in all four times, and invariably with the result of a steady rise of the fluid in the tube as the effect of the drug increased, and its fall to the zero as the influence wore off. At no time did the fluid reach a lower point than that at which it stood before the administration of the quinine.

PART IV.—NOTES AND NEWS.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

A Quarterly Meeting was held on the 27th ult., in the Rooms of the Royal Medical and Chirurgical Society; Dr. ROGERS, the President, was in the chair.

POST-MORTEM EXAMINATIONS IN NEWGATE.

The Secretary, Dr. W. RHYS WILLIAMS mentioned that he had applied to one of the Surgeons of Newgate for permission to examine the brain and spinal cord of a man hanged for murder, in whose case the plea of insanity had been set up. The answer was, that the Surgeon himself was willing to allow it, but there was an order from the Secretary of State that no post-mortem examination of criminals who were hanged should be made.

Dr. MAUDSLEY thought it possible that this regulation might apply to outsiders only, and that Mr. Gibson, the Surgeon of Newgate, might make an examination if he thought fit. In the case to which Dr. Williams referred, it was not likely that the brain or spinal cord would have shown anything. He (Dr. Maudsley) had a long conversation with the man, and could find no sign of insanity about him, and no evidence whatever of insanity in the account which he gave of the circumstances

https://doi.org/10.1192/bjp.21.93.143 Published online by Cambridge University Press