Remarks on the Number of Lunatics and Idiots in Ireland.

"For Ireland the proportion of lunatics is, according to the present census returns, one in every 821 of the population, while, by the calculations made in 1851, it was only one in 1291; but, as already stated, we believe the returns for that period were somewhat deficient. Compared with other countries in Europe and America, we learn, on referring to the above table, that Ireland occupies, together with Nova Scotia, Sweden, and Bavaria, a medium proportion between the high rate of lunacy in Oldenburg, Prince Edward Island, and Denmark, the average of which countries is one in 477 of the population, and the proportion of those of Piedmont, Savoy, Holland, and Saxony, where the average ratio is one in every 1931. In Prussia and Hesse-Darmstadt there are no statistical returns of lunacy, but in the nineteen other countries, from which we have procured the information respecting lunatics afforded by that table,—with a total population of no less than 125,827,287, and embracing as great a variety of climate, geographical extent, ethnological character of race, diversity of occupation and social and moral condition, as it is at the present day possible to obtain,—we find that the number of the insane was 121,423, or one in every 1036 of the people of these countries that afforded returns of this class; and that the sexes were in the ratio of 100 males to 106·59 females.

"The table shows a return for Ireland of 7033 idiots, or 2127 more than was presented in 1851: the sexes on the present occasion being in the ratio of 100 males to 83·10 females. Of the total number, 5675 idiots, 3213 males and 2462 females were either wanderers, mendicants, or under the care of their friends. In 1851 there were 3562 idiots or imbeciles at large, so that there is an increased return of as many as 2113 of this afflicted class of the community compared with our former report. In asylums there were only 403 idiots on the 7th April, 1861; in prisons but 21, and in workhouses 934, instead of 1129, the amount afforded in 1851.

"The proportion of idiots to the population at large is, according to the present Census, one in 825, or almost identical with that of lunatics; but, in examining the distribution of this class, we observe some remarkable differences, especially in the cities of Kilkenny, Cork, and Limerick, where, while the proportion of lunacy is high, that of idiocy is very low.

"Of the twenty-one countries of which the vital statistics are given in the above table, only ten have afforded returns of idiocy; in these, with a population of 84,218,301, the proportion of idiots to the population is one in every 1262, and ranges from one in 269 in Savoy, to one in 2040 in Belgium."—*Ibid.*

On Fatty Degeneration in Insanity. By KENNETH M'LEOD, M.D. Edin.; Assistant Medical Officer of the Durham Lunatic Asylum.

('Transactions of Northumberland and Durham Medical Society.')

Dr. Kenneth M'Leod commenced his paper by an exordium on the theories of vitality and nutrition expounded by his teacher, Professor Laycock, and proceeds to introduce his subject with the following propositions:

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"I. The most recent and correct conception of nutrition consists in the notion of the definite units of which the body is composed—each according to endowment and relations, selecting and abstracting material requisite for its teleorganic changes ('deriving from the vessels nearest them, in accordance with their several special requirements, certain quantities of material,' Virchow). This view is strongly set out by Professor Virchow, reiterated throughout his work on cellular pathology, and specially treated of in Lectures IV and V.

"II. Certain relations and adaptations, and consequently certain forces, are necessary in order that these changes may occur properly, being always changes to a special end, according to structure and adapted relation.

"III. Some of these relations are mere relations of simple and definite contiguity, and when these are interrupted and the unit isolated, its proper changes cease, it dies quoad the organism, and becomes adapted to new conditions and amenable to the operation of new forces.

"IV. Other relations are established by means of the nervous system, which communicates to each unit and organ the force necessary to the proper teleorganic change in harmonious relation. When this is denied or abolished, the vitality of the unit is equally impaired, modified, or abolished. This proposition has been established by innumerable experiments.

"V. The integrity and healthy action of the higher portions of the nervous system is necessary, not only for the accomplishment of those ends to which its constitution and changes seem specially adapted and constructed, but also to the proper action and nutrition of all those unities which it unifies, embraces, harmonizes, and co-ordinates. When, therefore, the structure and functions of these centres, in accomplishing the adaptive designs of the organism, are healthy and unimpaired, the structure and functions of the included or subordinate units will be also healthy, and *vice versa*.

"This proposition I enunciate with confidence, and can admit of no modification or reservation. It contains the essence of the pathological doctrines which I advocate, and the proper place and function of that department of medicine which I cultivate.

"I may here also deprecate the futility and prejudice to practical science of considering the function of the brain to be any other than a teleorganic change of material, or a change to end according to the laws of life and existence; mental manifestations to be other than a consequence of these changes, or of attributing any thing which we cannot easily explain otherwise to an immaterial principle, or 'the mind,' assumed as a hypothesis for the occasion, and entitled to no other use than a convenient formula for expression."

Dr. M'Leod then asks the question, Does functional derangement or structural disease of the hemispherical ganglia influence the nutrition of the body, how and to what extent? In reply he refers to a table (not given) of the post-mortem appearances in 78 cases of various forms of insanity, and with reference to the particular subject of this paper observes:

"*The fatty degeneration*, to some degree or extent, I found in every case examined, involving the organs in the following succession: liver most frequently, kidney next, then heart, muscular system, brain, and lungs. I should not certainly have anticipated such a result, but it is no less certain than important and striking, that in *every case* this degeneration did, to a greater or lesser extent, in one or several organs or tissues exist. Of its degrees I have found every grade, and in the case of each organ I have attached in my table a number, one to ten, to signify that. The higher numbers are decidedly in the majority, in some cases many organs were involved in a very high degree, in others one was more especially affected;

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while in most cases it co-existed with some other form of degeneration, and in a few constituted the only pathological change. Such being the extent and degree to which this terrible disintegrating process prevailed, a few considerations as to its character will not be misplaced.

"I. As to *causation*, its occurrence is generally attributed to impaired vitality of a part, which is really next to saying nothing; but this at any rate is true, that when a particular unit, cell, or fibre, or organ does not, from whatever special cause, perform its proper function, and in doing so undergo its proper change, then it is prone to assume this degeneration or necrobiotic change, to become in reality dead to the organism, when its active operation is not required. When, therefore, its adapted relation to the organ is interfered with or abolished, then it degenerates. This statement is imperatively supported by the fact that when units or organs are no longer required to fulfil the designs of the organism they become fatty. The thymus gland is a notable instance, and the uterus after parturition another beautiful example. In pathology instances abound.

"Unused muscles in cases of anchylosis, and unexercised muscles in cases of paralysis, degenerate. In inflammation, cancer, and tubercle, a proliferation of cells takes place, and as they get more and more out of relation with the organism, fatty degeneration and disintegration ensues. The same is true of morbid growths. When, therefore, the co-ordinating nerve centres are deranged and diseased, and each unit of the body is thus out of adapted relation with the rest, and fails to receive its proper stimulus to adapted activity, is it extraordinary that, as Virchow phrases it, it should become a prey to chemical forces, and the subject of abnormal and degenerate change?

"II. As to its pathological nature and significance it is—

"1. Of simpler chemical constitution than any of the tissues it substitutes—a degradation in the scale of complexity.

"2. It is of simpler morphological character—a drop in capsule.

"3. It reduces complex and different tissues to this simple and similar form, abolishing structural distinctions and peculiarities, impairing and destroying function, and forming a stepping-stone to thorough abolition of both. It is perhaps the most typical and disastrous of the necrobiotic processes.

"4. It is essentially a disease of units—a histolysis of histological elements, and its true character can only be gained from a careful examination of microscopic elements in their various relations.

"5. Being a pathological process exactly similar to some physiological processes, it illustrates forcibly the great law in pathology, that morbid processes are really so only in respect of the relation they hold to the organism, so that one process which in certain relations is normal is in others abnormal and a disease.

"III. As to its results, they are very easily stated—death of the organism; first partial, then general.

"I think I have sufficiently demonstrated the fact that in insanity one great truth, perhaps the great and practical truth, is the tendency to imperfect nutrition and degeneration as an invariable concomitant and necessary consequence. The importance of using every endeavour to promote by hygienic, dietetic, and medicinal means, the nutrition of the body, becomes very apparent and imperative. I assert this most emphatically, because means prejudicial thereto—blistering, depletion, purging, starving, mercurials, antimonials, &c.—are still too often employed, and with the worst possible effect. It is a fact of daily experience besides, that the free and judicious exhibition of stimulants and nutrients are the principal agents in bringing about the recovery of the insane.

"We sometimes admit thin, pallid wretches, with large blister marks on

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nape of neck, leech bites on temple, red line on gums, whom we have to ply with wine, beef tea, and cod liver oil and iron, and we invariably find that as the flush of health again mantles the cheek, cerebral action becomes more healthy, and sanity returns. Of course other medicinal and moral means are employed: drugs, such as hydrocyanic acid, to restrain the excessive and deranged brain action, and moral means, to induce conduct and thought more in adaptation with circumstances; but the most efficient and powerful remedial agent is undoubtedly—NUTRITION."

On the Home Treatment of the Earlier Stages of Insanity. By GEORGE ROBINSON, M.D., F.R.C.P.

('The Lancet,' January 30.)

"IN considering, writes Dr. Robinson, the *general management* of insane persons treated at home it is desirable to keep in view two great principles —that the authority of the medical practitioner is here limited to *recommendations* as to the measures to be adopted for the patient's welfare and security, those measures having the full sanction and formal consent of the relatives; and that the great object of all special arrangements is to assimilate as far as practicable, in essential points, the conditions of an ordinary dwelling to those present in a modern institution for the reception of the insane. Of course there are many curative resources in a large asylum which cannot be extemporised or imitated in a private house; but the tendency of late years to invest the former with the cheerfulness and home comforts of the latter diminishes, in some degrees the difficulty of the task. And the same general therapeutic principles, the neglect of which has hitherto been the great opprobrium of all attempts at the home treatment of insanity, are, of course, equally applicable everywhere.

In the treatment of the earlier stages of insanity, therefore, as in purely bodily disease, attention to the hygienic conditions present, and to all those varied circumstances which influence the tenacity of life and the general comfort and well-being of the patient, is of at least equal importance with the medical agencies employed. I shall, therefore, very briefly notice, *seriatim* some of the more important of those therapeutic adjuncts.

The choice and arrangements of the *apartments* used by the patient deserve special attention, otherwise much of the benefit of medical treatment may be lost. As a general rule, it is desirable to have at least two rooms devoted to this particular purpose, and both should be selected with the view of ensuring, as far as possible, cheerfulness, quiet, warmth, and above all, perfect *ventilation*. The vitiated state of the secretions connected with the impaired bodily health always present in these cases, and the frequent tendency of insane persons to disregard all considerations of personal cleanliness, render this latter point one of paramount importance. The regulation of the *temperature* must also be attended to. In acute mania excessive heat is objectionable, and thus we often observe during the height of summer an unusual liability to cerebral excitement in persons of unsound mind. Whereas in melancholia the circulation is languid and the extremities are cold, so that greater warmth is required, and the heat of the rooms should be not much below 70°. In puerperal mania, a moderate temperature, and, if of recent occurrence, the avoidance of currents of cold air, or coldness of the feet, are the chief points to be observed in this respect.

The furniture should be as simple as is consistent with comfort; all loose dangerous articles and valuable ornaments being removed, large easy

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