Clinical Notes and Cases.

Lilliputian Hallucinations.[1] By Dr. LEROY, of the Maison Blanche, Asile du Département de la Seine. Communicated by G. W. B. JAMES, M.C., M.D.Lond., D.P.M.Lond.

LAST November, while on a visit to Paris, I was kindly received at the Maison Blanche, one of the hospitals of the Département de la Seine, by Dr. Leroy, who showed to me a considerable number of his patients. Some of them raised the subject of hallucinations, and Dr. Leroy demonstrated one case in which the hallucinations were of a somewhat unusual type, and before I left gave me a short article, the substance of which he begged me to communicate to the Medico-Psychological Association. Dr. Leroy is particularly anxious to hear if similar observations have been made by his English colleagues, and I hope to be able to forward to him some remarks from those present at this meeting.

Leroy first called attention to what he terms Lilliputian hallucinations in 1909. Since that date he has made several communications to French medico-psychological societies describing cases in which this type of hallucination has occurred.

The patient sees small figures, men and women, about 20 cm. in height. The figures are almost always dressed in bright colours: for example the breeches of the men are yellow and the coats are red or blue; the women wear brightly coloured shawls. The figures are in some cases accompanied by animals, generally horses, whose size corresponds to that of the other figures. They may occur singly or in small groups, but more commonly in considerable numbers, some patients describing actual orderly processions, marching two by two. The figures appear to talk together, grimace, and even play hide and seek among the articles of furniture in the room. Their reality is a striking feature of the hallucinations; the patient seems to be actually viewing the country of Lilliput, whence Leroy's descriptive title. The duration of the hallucinations varies. Commonly they last half an hour or thereabouts. Leroy cited a case in which the figures appeared daily for over two years. Aural hallucinations do not appear to accompany the visual disturbance.

Leroy has observed that the condition occurs most commonly in patients suffering from alcoholism, drug toxæmias, senile dementia, and, less commonly, general paresis.

In contrast to the alarming nature of most toxic visual hallucinations, with their accompanying psychic state of fear, or at least anxiety,

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these Lilliputians arouse interest and amusement in the patient, only rarely producing apprehension. The patient is obviously absorbed, laughs from time to time, and will describe the hallucinations to others without hesitation.

Two typical cases follow:

The first, a young alcoholic woman, escaped one evening from the house of her friends in order to visit the curé of the village. On her way she found herself surrounded by a crowd of small persons, gaily dressed, and frolicking along the road and the walls of the houses bordering the road. When she reached the presbytery the figures even attempted to prevent her ringing the bell. This patient was not afraid, and exhibited these hallucinations repeatedly during her illness. The appearance of the Lilliputians followed a period of acute alcoholic delirium in which the typical fearful visual hallucinations had occurred.

The second case described is that of an elderly man, who had an old rheumatic cardiac lesion, and suffered also from albuminuria. This man described a procession of little figures, from 15 to 20 cm. in height, who, dressed in their best clothes, marched in procession through his room, entering by the window and leaving by the wall paper. They generally appeared in the evening, and sometimes at night. The patient was amused by them, laughed at them, and occasionally pursued them with his stick. In the closing months of his life this case developed ideas of reference and exhibited some anxiety about the hallucinations.

Leroy states that similar hallucinations are recorded in *The Life of the Saints*, as occurring to St. Macaire, who lived in the fourth century. This man appears to have mortified himself to excess, so that he was probably suffering from the toxins of starvation.

To summarise, then, Leroy reports the characters of the so-called Lilliputian hallucinations as small, very vivid visual hallucinations, usually of living figures about 20 cm. in height. The figures are gaily coloured, active, may occur singly but more often in large numbers. They are to be observed in toxic states accompanied by mental confusion, and are agreeable to the patient, in striking contrast to the usual terrifying visual hallucinations seen, for example, in alcoholism.

Note.—Members of the Association who have made observations of similar hallucinations are requested to forward them to Dr. James, Moorcroft House, Hillingdon, Middlesex, who undertakes to translate them and forward them to Dr. Leroy.

The Arneth Count in Insanity. By Eric Ponder, M.B., Ch.B.Edin.
(From the Department of Physiology, University of Edinburgh.)

Cooke (1) has made a study of the changes in the Arneth count met with in tuberculosis, and records the fact that in many diseases of an infective nature there is a "left-hand dislocation" of the count such as is found in tuberculosis. He further records that such a "dislocation" occurs in cases of insanity, and he gives counts derived from cases of locomotor ataxy, general paralysis, epilepsy, imbecility, and senile dementia. The cases considered are only twelve in number.

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Cooke remarks that this change in the count in insanity requires further explanation. It appears that the first thing necessary is not explanation, but amplification.

In this paper will be considered the results of Arneth counts made in 417 cases of insanity. These results will be treated statistically. No explanation of the deviations from the normal will be offered.

The method of making the count was that recommended by Cooke; this method has been found satisfactory, consistent results being obtained after some experience. The blood was drawn from the ear; the stain used was Giemsa. The count was based on the observation of 100 polymorphs.

Instead of giving, for any case, the Arneth count in full—*i.e.*, the numbers of cells with 1, 2, 3, 4 and 5 lobes to the nucleus respectively—it is convenient, when dealing with large numbers of cases, to express the count as a single number. There are two ways of doing this: one by calculating the "index" of Bushnell and Trucholtz, and the other by using the "phagocytic index" of Hamilton Black (2). The latter index is based on his observation that the phagocytic powers of cells with 1, 2, 3, 4 and more lobes to the nucleus are in the ratios 10 : 18 : 22 : 25 : 25. The "index" is obtained by multiplying the number of cells with a one-lobed nucleus by 10, the number with a two-lobed nucleus by 18, the number with a three-lobed nucleus by 22, and the number with nuclei more complex by 25, the number of cells observed being 100. The normal index may be taken as about 2,000. This index is a function of the count, and its variations may be studied instead of variations in the count itself, thus obviating the difficulty of dealing with the five sets of figures of which the count is composed. Indices obtained in this way will therefore be used in this paper throughout.

The cases studied were 417 cases of insanity, patients in the Monmouthshire County Asylum, Abergavenny. All were males. They are divided as follows:

(1) Into groups depending on the presence or absence of tubercular infection; and (2) into groups according to the nature of the mental condition.

(1) Since it is very difficult to decide which cases were infected with tuberculosis and which were not, the method adopted was to classify as tubercular all patients suffering from the disease in an active condition, and all who, during their residence in the institution, had been known to show signs or symptoms of the disease. Some of the tubercular group are thus cases of quiescent tuberculosis.

(2) The classification according to mental condition was made according to the system laid down by the Board of Control of England.

The mean of the indices (M) for each group is given, and also the

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highest (e_h) and the lowest (e_l) extreme met with in the group. The standard deviation (σ) and the co-efficient of the variation (C) for each group is given. The probable error of the mean (E_n) is $\frac{\sigma \times 0{\cdot}6745}{\sqrt{n}}$, when n is the number of cases in the group. The value of $3E_n$ is also expressed for each group, since differences between means, greater than this value, are of significance. It has been thought unnecessary to give the value of E_σ.

The result obtained from the study of the 417 cases is given in Table I.

In Table I the result in normal cases is inserted for comparative purposes, and is based upon Cook's normal cases.

Table II is obtained from Table I, and expresses the means and probable errors in order of magnitude, in tubercular and non-tubercular cases respectively. Table III gives the means, etc., for tubercular and non-tubercular cases, irrespective of mental condition, and shows the effect of the tubercular factor. Table IV gives a comparison between the mean of the non-tubercular melancholic and maniacal cases (*i.e.*, the recent cases), and the mean of the other non-tubercular cases of insanity (the chronic cases).

The tables are largely self-explanatory.

TABLE I.

	n.	e_h.	e_l.	M.	σ.	C.	E_n.	$3E_n$.
Normal cases = 60.	60	2163	1820	2007	71·25	3·5	6·2	18·6
Congenital cases = 34.								
Not tubercular . .	23	1769	1395	1550	116·1	7·5	16·3	48·9
Tubercular . .	11	1476	1276	1406	60·96	4·3	12·4	37·2
Dementia præcox = 33.								
Not tubercular . .	24	1679	1390	1530	92·51	6·0	12·74	38·22
Tubercular . .	9	1546	1320	1418	72·47	5·1	16·3	48·9
Mania = 10.								
Not tubercular . .	8	1685	1516	1615	66·85	4·1	15·9	47·7
Tubercular . .	2	1657	1372	1464	151·1	10·3	72·17	216·5
Melancholia = 24.								
Not tubercular . .	12	1749	1520	1615	71·31	4·4	13·9	41·7
Tubercular . .	12	1591	1331	1452	85·43	5·8	16·8	50·4
Epilepsy = 32.								
Not tubercular . .	24	1818	1399	1558	94·9	6·0	13·08	39·24
Tubercular . .	8	1404	1319	1354	30·3	2·23	7·2	21·6
General paralysis = 23.								
Not tubercular . .	18	1723	1375	1506	83·43	5·4	13·24	39·72
Tubercular . .	5	1407	1385	1394	7·68	0·55	2·29	6·87
Paranoia = 62.								
Not tubercular . .	46	1770	1352	1563	96·51	6·09	9·57	28·7
Tubercular . .	16	1552	1144	1380	92·76	6·7	15·6	46·8
Dementia = 199.								
Not tubercular . .	155	1794	1250	1513	120·5	7·9	6·53	19·59
Tubercular . .	44	1492	1139	1358	94·95	6·9	9·64	28·92
	n.	e_h.	e_l.	M.	σ.	C.	E_n.	$3E_n$.

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TABLE II.

According to mental condition.	Not tubercular.			Tubercular.		
	M.	E_n.	$3E_n$.	*M.*	E_n.	$3E_n$.
Mania	1615	15·9	47·7	1464	72·17	216·5
Melancholia	1615	13·89	41·67	1452	16·8	50·4
Paranoia	1563	9·57	28·71	1380	15·6	46·8
Epilepsy	1558	13·08	39·24	1354	7·2	21·6
Congenital	1550	16·3	48·9	1406	12·4	37·2
Dementia præcox	1530	12·74	38·22	1418	16·3	48·9
Dementia	1513	6·53	19·59	1358	9·64	28·92
General paralysis	1506	13·24	39·72	1394	2·29	6·87

TABLE III.

	Normal.	Not tubercular.	Tubercular.
n	60	310	107
M	2007	1556	1403
σ	17·25	38·85	39·01
E_n	6·2	9·27	9·30
$3E^n$	18·6	27·81	27·9

TABLE IV.—*Non-tubercular cases*, 310.

	n.	*M.*	σ.	E_n.	$3E_n$.
All cases except mania and melancholia	290	1530	91.8	3·5	10·5
Manias and melancholias	20	1615	68	14·3	42·9

Difference of means = 85. $3E_n$ = 53·4.

To these tables may be added two short tables, conveniently considered separately—a table of the indices of patients who died and who were examined for tubercle *post-mortem*, and a table of indices of patients who were discharged recovered.

TABLE V.—*Cases of Death* (*not included in* 417 *cases*).

Index.	*Post-mortem* notes.	Mental condition.
1788	No tubercle found. Aortic disease	Paranoia.
1500	Tubercular pneumonia	Paranoia.
1400	No tuberculosis	General paralysis.
1346	Tubercular pneumonia	Dementia.
1331	Miliary tuberculosis	Dementia.
1276	No tubercle	General paralysis.
1252	Tubercular pneumonia	Dementia.
1168	Miliary tubercle	Dementia.

TABLE VI.—"*Recovery*" *Cases* (*not included in* 417 *cases*).

Mental state.	Index on admission.	Index on discharge.	Tubercle.	Notes.
Mania	1440	1899	No	Recovered.
General paralysis	1480	1507	No	Improved.
Epilepsy	1818	1962	No	Improved.
Epilepsy	1523	1716	No	Improved.
Dementia præcox	1332	1526	T.B. hip	Improved.
Melancholia	1444	1742	N	Recovered.

DISCUSSION.

It is obvious that in insanity there is a marked "dislocation of the Arneth count to the left," the tendency being for the polymorphs to

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be possessed of a simple nucleus rather than of one divided into several lobes. The figures given above confirm Cooke's observation. The " dislocation " met with in insanity is not caused by tuberculosis; in cases of mental derangement where no tuberculosis exists, the dislocation is well marked (Table III); if tuberculosis be present the amount of this left-handed dislocation of the count is increased.

When cases of insanity are grouped according to mental condition, the values of the means of the indices of the various groups do not differ greatly except in the case of melancholia and mania—*i.e.*, the " recent " cases—as opposed to those of long standing (Tables II, IV). That the difference between the mean of the non-tubercular maniacal and melancholic cases differs from the mean of the other non-tubercular cases by more than three times the probable error justifies the consideration of maniacal and melancholic cases as a group apart, in which the Arneth count is less dislocated than in other types of insanity.

Table II, column 2, bears this out.

Table V confirms the statement that a dislocation of the Arneth count can exist in insanity in absence of tubercle.

Table VI shows that an improvement of mental condition may be accompanied by a return of the Arneth count towards normal.

Conclusions.

(1) In various forms of insanity the Arneth count shows a left-handed dislocation. This dislocation is not due to tuberculosis.

(2) The dislocation is greater in amount if tuberculosis is co-existent with the insanity.

(3) Cases of recent mania and recent melancholia show a less marked dislocation of the count than do cases of other forms of insanity.

(4) Improvement in the mental condition may be accompanied by a change of the Arneth count in the direction of normality.

References.

(1) Cooke, W. E.—*The Arneth Count*, 1914.

(2) Hamilton Black.—*Brit. Med. Journ.*, January 18th, 1913.

Recent Medico-Legal Cases.

[The Editors request that members will oblige by sending full newspaper reports of all cases of interest as published by the local press at the time of the assizes.]

Rex *v.* Ronald True.

Reported by Dr. M. Hamblin Smith.

The case of Rex *v.* Ronald True, tried at the Central Criminal Court in May, before Mr. Justice McCardie, raised in an acute form

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