

A 3 – year review of neurologic admissions in University College Hospital Ibadan, Nigeria

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Summary

A 3 year review of neurologic admissions into the adult medical wards at the UCH, Ibadan, Nigeria between January 1998 and December 2000 is presented. The study design involved the scrutiny of the records of all the neurological admissions, male and female to the medical ward. The identified cases were then classified and only cases confirmed as neurological were further analysed.

Stroke, predominantly non-hemorrhagic accounted for 50.4% of cases for the period of study. Stroke is therefore the most common cause of adult neurologic admissions on medical wards of UCH. Central nervous system infections, comprising mainly of tetanus and meningitis accounted for 14.2% (111) and 12.4% (97) of case respectively. The myelopathies were the cause of neurologic admissions in 8.1% (63) of cases followed by seizure disorders. Headache was the reason for admission in 0.9% (7) of cases.

Parkinsons disease, hypertensive encephalopathy, Guillian Barne syndrome, seasonal ataxic neuropathy, cavernous sinus thrombophlebitis, normal pressure hydrocephalus were rarely the cause of admission. Similarly, dystonia, and cerebral malaria recorded 0.13% (1) of cases each.

A case is made for the establishment of regional stroke units in Nigeria.

Keywords: *Neurologic, Admissions, Stroke Units.*

Résumé

Un bilan d'une durée de trois ans sur la neurologie d'hospitalisation dans la salle médicale des adultes à UCH, Ibadan, Nigeria entre janvier 1998 et décembre 2000 est l'objet de cet étude. Le plan de cet étude implique un examen minutieux des dossiers de toutes les admissions neurologiques, mâle et femme dans la salle médicale. Les cas identifiés ont été classifiés et seulement les cas confirmés étant neurologiques ont été analysés en détail.

L'attaque, non hémorragique est recensée d'une manière prédominante en 50,54% des cas pendant la période de cet étude. L'attaque est donc la cause la plus fréquente des admissions neurologiques des adultes dans la salle médicale à UCH. Des infections du système nerveux central, névraxe, composées principalement de tétanos et la méningite recensée en 14,2% soit (111) et 12,4% soit (97) des respectivement.

Les myelopathie étaient la cause des admissions neurologiques en 8,1% soit 63 des cas suivi par troubles de la crise. Mal de tête était responsable pour l'admission en 0,9% soit 7 des cas. La maladie de parkinson, encéphalopathie, liée à l'hypertension syndrome Guillain Barre, neuropathie ataxique saisonnière, le sinus de la thrombophlébite, la pression normale d'hydrocephalus étaient rarement les causes d'admission.

Pareillement, dystonie, et l'aludisme cérébral recensé en 0,13% soit (1) dans chaque cas. Donc, nous proposons la création d'un service régional d'attaque au Nigeria.

Introduction

University College Hospital (UCH) was established in 1957, while the neurology unit was created in 1964. It was designated the centre of excellence for neurosciences in 1986 by the Federal Government of Nigeria.

The last time a related survey was conducted was in 1971¹, a study, which actually looked at cases seen on the ward admission along with those seen at the outpatient departmental clinics.

The aim of this study is to review the neurologic cases admitted to the adult medical wards, from January 1998 to December 2002.

Materials and methods

A review of the hospital medical wards records for neurological admissions over 36-month period (January, 1998 and December 2000) was carried out at the Department of Medicine, University College Hospital, Ibadan, Nigeria. All the records of patients admitted to all the adult medical wards were reviewed. A table of cases as defined by the International Classification of Diseases² code was made. Only cases that were confirmed as neurologic problems were analysed.

A medline literature search was done on the trend of admission of neurologic cases.

Results

A total of 781 neurologic cases comprising of 468 males and 313 females (age range 133 – 68 years), indicating a male female ratio of 1.5:1, with a mean age of 48 ± 9.6 years were admitted on the adult medical wards of UCH, Ibadan, Nigeria between January 1998 and December 2000.

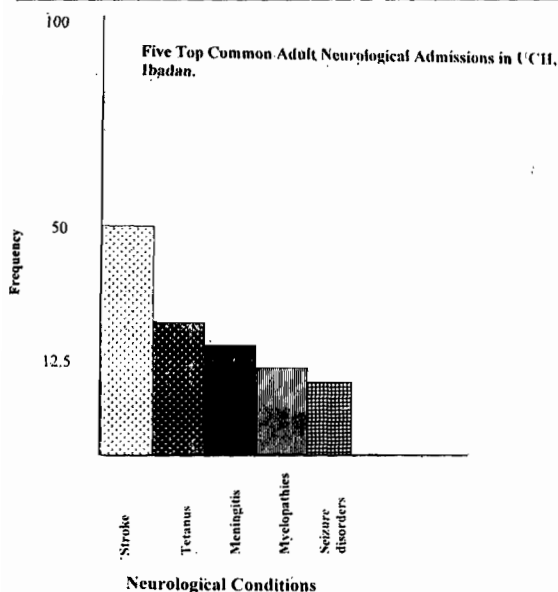
The total hospital admission during the period of study was 26,355 in-patients. Stroke accounted for 394 (50.4%) of all neurologic admissions and 2.96% of the total hospital admis-

Table 1 Characteristics of the five most common neurologic conditions

	Stroke	CNS infections Tetanus	Meningitis	Seizure Disorders	Myelo- pathies
Total	394	111	97	50	63
Male	234	92	47	31	39
Female	160	19	50	19	21
Peak age (decade)	6th	2-4th	2-4th	2-4th	3-4th

Table 2 Results of 3 year review of adult neurologic admissions in UCH, Ibadan January 1998 – December 2000

Neurological conditions	Numbers of cases	Percentages
Stroke/CVD	394	50.40%
Tetanus	111	14.20%
Meningitis	97	12.42%
Myelopathies	63	8.15%
Seizure disorder	50	6.40%
Headaches (unclassified)	7	0.90%
Transient ischaemic attack	6	0.77%
Motor neurone disease	5	0.04%
Parkinsons disease	4	0.50%
Hypertensive encephalopathy	4	0.50%
Gullian barre syndrome	4	0.50%
Ataxic neuropathy	4	0.50%
Cavenous thrombophlebitis	2	0.25%
Normal pressure hydrocephalus	2	0.25%
Dystonia	1	0.13%
Cerebral malaria	1	0.13%
Total	781	100%

**Fig. 1 Geographical illustration of table 2**

sions. (Table 2). Whereas tetanus and meningitis accounted for 111 (14.2%) and 97 (12.4%) respectively, seizure disorders constituted 50(6.4%) of the cases.

Myelopathies were responsible for the admissions of 63 (18.1%) cases. Headaches were the cause of admissions in 7(0.9%) cases while transient ischaemic attack (TIA) was the cause of admission in 6 (0.77%) cases. Motor neuron disease contributed 5(0.64%) cases.

Rare causes of neurologic admissions such as hypertensive encephalopathy 0.5%, Gullian Barre syndrome (0.5%), seasonal ataxic neuropathy 0.5%, while cavenous sinus thrombophlebitis and cerebral malaria were the cause of admission in 0.13% of cases each.

Discussion

Within a three-year period (January 1998 – December 2000) at the UCH, Ibadan, a total of 26,355 patients were admitted into the wards of the hospital Neurological diseases accounted for 781 of these patients. This represents 2.96% of the

total hospital admitted population during the period of study.

The contribution by stroke, more than half of total neurological cases admitted is remarkable. Stroke is has been shown to account for 0.9 – 4.0% of total hospital admissions and 2.8% – 4.5% in Africans⁵. It was reported to have also constituted 16% of total neurologic admissions in Ibadan, Nigeria¹. This study however recorded stroke, predominantly non-embolic ischaemic subtype, as contributing as much as 50.4% of neurological admissions.

Tetanus and meningitis still dominated the central nervous system infections next to stroke with 14.2% and 12.4% respectively. Between them they accounted for 26.6% of total neurologic admissions. Previous community-based studies in Africa, have mostly identified infections of the CNS as the most common neurological problem in black Africans^{1,3,4}. Myelopathies ranked 4th in this study with 8.15% (63) cases

The high number of cases seen as stroke in particular, tetanus, meningitis and myelopathies call for increase focus on these cases. With the recent advances in the understanding of the pathophysiology of stroke and the urgency now accorded the identification and management of case of stroke, there is need to review our current management strategy⁶. With the advent of terms such as “brain attack” to describe acute stroke, it is imperative we make up for our management deficiencies^{6,7}.

For the above reasons, a case is hereby made for the establishment of at least three regional stroke units in Nigeria. The stroke units have been shown to improve the outcome in cases of stroke compared to those managed on the general wards^{7,8,9,10}.

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