

Data from a study of Guinea worm infection in northern Nigeria, 1971-1974

Title

Data from a study of Guinea worm infection in northern Nigeria, 1971-1974.

Alternative Title

La dracunculose au Nigeria du nord 1971-1974.

Data Creators / Authors

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Data contact:

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Data Description

This data collection contains (a) a listing of the demographic and clinical features of 563 patients with guinea worm infection collected over a period of four years (1971-1974) in northern Nigeria, (b) summary tables of the clinical features of patients with guinea worm including those with arthritis, (c) a listing of the bacteria cultured from guinea worm ulcers, and (d) a listing of the antibiotics used or treatment of guinea worm.

Data Collection Methods

Data on the clinical features of patients with guinea worm was collected in the field on paper case reporting forms. Data summaries were then prepared using Excel spreadsheets. Immunological results were recorded in laboratory notebooks and summaries prepared in Excel spreadsheets prior to analysis. Comparisons between groups were made using chi squared and Students t tests.

Geographic regions

The study was conducted in a group of villages near to the town of Malumfashi, northern Nigeria, which were part of the Malumfashi Endemic Diseases Research Project established through a partnership between the Institute of Health, Ahmadu Bello University (ABU) and the Liverpool School of Tropical Medicine.

Key dates

Weekly clinics were held in villages in the study area throughout the rainy seasons of 1971-1974, with visits alternating between villages each week. Guinea worm infection peaks during the rainy season.

Species:

Human population

Privacy:

All personal identifiers have been removed from the data files.

Ethics

The study was approved by the Director of Health Services, Ahmadu Bello University, the Paramount Chief for the study area (the Galadima of Malumfashi), and by village heads and their advisors. Oral, informed consent was obtained from study subjects for the collection of blood samples or for participation in skin testing.

Keywords

Guinea worm; Nigeria; morbidity; arthritis; immunology; eradication.

Language of written material

English

Project Information

Project

From 1971-74, a series of studies on guinea worm infection were conducted in a group of villages in Katsina State, northern Nigeria where the infection was highly endemic. These studies demonstrated the high rate of infection in affected communities, the frequent recurrence of the infection in some subjects and the long-standing disability that persisted in some infected individuals. Immunological studies in subjects with an active guinea worm infection showed a high level of immediate skin test positivity to adult worm and larval antigens, raised serum IgE levels and high titres of antibody to both adult and worm antigens. However, delayed skin test positivity and lymphocyte proliferation in response to adult worm antigen was not seen, indicating a down-regulation of Th1 type T cell responses to worm antigens, and a possible explanation for the frequency of recurrent infections.

Funder/Sponsor

Medical Research Council

Associated Roles

| Role | Forename | Surname | Unit | Institution |
|--|----------|-----------|---|--|
| Project leader and contact person | Brian | Greenwood | Faculty of Epidemiology and Population Health > Department of Disease Control | London School of Hygiene & Tropical Medicine |
| Researcher | Alice | Greenwood | Malumfashi Endemic Diseases Research Project | Ahmadu Bello University, Zaria, Nigeria. |
| Researcher | Andrew | Bradley | Malumfashi Endemic Diseases Research Project | Ahmadu Bello University, Zaria, Nigeria. |
| Researcher | Moses | Damisah | Department of Medicine | Ahmadu Bello University, Zaria, Nigeria. |
| Researcher | Kunle | Odulejo | Department of Medicine | Ahmadu Bello University, Zaria, Nigeria. |

File Description

| Filename | File type | Description |
|---|---------------|--|
| UserGuide.pdf | Adobe PDF/A | A user guide that describes the project and associated data |
| Table1.docx | Word document | Number of cases by individual village. |
| Table2.docx | Word document | Presentation of some of the statistical analyses undertaken. |
| 1_Individual_cases_by_year.xlsx | MS Excel file | Listing of individual cases by year with their main demographic and clinical features. |
| 2_Demographic_Clinical_Summary.xlsx | MS Excel file | Summary of the individual demographic and clinical features of the study participants by year. |
| 3_Worm_Emergence_Site.xlsx | MS Excel file | Summary of the site of worm emergence. |
| 4_Worm_Arthritis_Summary.xlsx | MS Excel file | Listing of individual cases of guinea worm arthritis. |
| 5_Definite-Possible_Arthritis_Cases.xlsx | MS Excel file | Summary of definite and possible cases of guinea worm arthritis. |
| 6_Definite-Arthritis_Cases.xls | MS Excel file | Summary of definite cases of guinea worm arthritis. |
| 7_Microbiology_Findings.xlsx | MS Excel file | Summary of the microbiological findings from ulcers at the site of guinea worm emergence. |
| 8_Antibiotic_Treatment_Summary.xlsx | MS Excel file | Summary of the antibiotic treatments given. |

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[Additional Information](#)

Individual case notes, additional work sheets, further details of immunological assays and a laboratory notebook holding details of immunological findings are held in the archives of the London School of Hygiene and Tropical Medicine.