

Meningococcal meningitis in sub-Saharan Africa: from the understanding of the dynamics of colonization and disease patterns to improved control

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The "meningitis belt" of sub-Saharan Africa records the highest incidence of meningococcal meningitis in the world. The disease occurs in epidemic cycles with devastating consequences. The mechanisms leading to the spread of clonal complexes of *Neisseria meningitidis* and to epidemics of disease are still unclear. Since colonization is the entry point to meningococcal meningitis the proposed study focuses on systematic long-term analysis of the relationship between meningococcal colonization and disease. The basic design is to analyze in two districts (one in Ghana and one in Burkina Faso) of the African meningitis belt (1) the dynamics of meningococcal nasopharyngeal colonization, (2) the cerebrospinal fluids of all suspected meningitis patients attending the district health services and (3) the clinical pattern of disease. The expected outcomes of the study are (1) improved prediction and control of epidemics of bacterial meningitis, (2) improved management of patients with bacterial meningitis, (3) improved understanding of the dynamics of colonization and disease and (4) clarification of features relevant for the development of improved vaccines.

Projektbeteiligte

PD Dr. Thomas Junghanss

Universität Heidelberg

Universitätsklinikum

Abteilung für Tropenhygiene und Öffentliches

Gesundheitswesen

Sektion Klinische Tropenmedizin

Heidelberg

Dr. Abraham Hodgson

Navrongo Health Research Centre

Navrongo

Ghana

Dr. Bocar Kouyaté

Nouna Health Research Center (CRSN)

Nouna

Burkina Faso

Prof. Dr. Gerd Pluschke

Swiss Tropical and Public Health

Institute TPH

Molecular Immunology Unit

Basel

Schweiz