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Prevalence of *Staphylococcus aureus* associated with multi-drug resistance in some hospitals in Limbe Health District in the South West Region of Cameroon

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Nosocomial and community-acquired *Staphylococcus aureus* infections are significant burdens to our health care systems. These infections are associated with significant morbidity and mortality, increased length of hospitalization and increase treatment costs. A study on *Staphylococcus aureus* was carried out with a view to isolating, determining the prevalence and antibiotic sensitivity pattern of the isolates present in clinical and environmental samples in Limbe Health District. The results obtained indicated that 231 samples examined (104 environmental, 102 from patients and 25 from health workers), 85(36.8%) were positive for *Staphylococcus aureus*. Fifty three (41.7%) and thirty-two (30.8%) represented positive cases from clinical and environmental samples respectively. Of the clinical samples examined, gentile secretions (68.2%) had the highest isolation rate while furniture had the highest isolation rate (40.6%) of *S. aureus* in environmental samples. Females were more predisposed to infection as well as individuals of the age group 31-40years. Results of antibiotic sensitivity tests carried out showed that vancomycin was most effective (100% susceptible) closely followed by ofloxacin (71.8% susceptible). Isolates exhibited complete resistance (100%) to ampicillin, bacitacin and penicillin. Marked resistance was also observed in methicillin (94.1% resistance), gentamicin (83.5% resistance) and oxacillin (75.3% resistance). Twenty-one antibiotypes were identified. A composite biochemical-antimicrobial profile revealed five biotypes (I, II, III, IV and V) with biotype I being the most frequently encountered, biotype II had the highest occurrence of seven antibiotypes while biotypes IV and V had the least number of antibiotypes (two each). The multiple resistances observed are not surprising as multi-drug resistant strains are steady increasing over the years. As such, hospital infection control strategies will have to be redefined and community approaches developed to reduce transmission.

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In vivo antimalarial activities of extracts of *Newbouldia laevis* and *Cocos nucifera* against *Plasmodium berghei*

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Malaria caused by the parasite - *P. falciparum* is an acute disease which kills an estimated 863,000 people per year according to WHO report. Malaria chemotherapy failure is beginning to give medical practitioners a concern. The continuing spread of multi-drug resistant *P. falciparum*-malaria now poses a major threat to the tropics. Natural-products are the source of the two most important drugs currently available to treat severe falciparum-malaria, quinine and artemisinin derivatives. The development of these two important-drugs and utilization of many plants traditionally in various part of the world triggered the search for new, effective antimalarial drugs of natural origin. In this study, Swiss-albino mice ranging from 25-35 g of weight were used. The mice were randomly assigned into treatments and controls (negative and positive-control) with five mice per group. *Plasmodium-berghei* obtained from Nigeria Institute of Medical Research, Lagos were used as donors. Each mouse received 0.1 ml of diluted-blood containing 1×10^6 *P. berghei* infected erythrocyte by intraperitoneal-route. Three hours after inoculation of the parasite, the mice in the three treatment groups received the extracts of *Newbouldia laevis* and *Cocos nucifera* in doses of 200, 400, 600 mg/kg orally for four consecutive days, while the negative and the positive control received normal-saline and 25 mg/kg chloroquine phosphate orally daily for four consecutive days. On the fifth day, blood sample was collected from tail snip of each mouse, thin smears were prepared, stained with 10%- Giemsa solution and examined under microscope with an oil immersion objective of 100x magnification power to evaluate percentage suppression. The extract treated mice (200, 400, 600 mg/kg) showed decreased parasitemia level to a highly significant level ($p < 0.05$).

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