Vertebrate Animal Bite/ Scratch Injuries and Management among Patients Reporting at Kakamega Provincial General Hospital,

Kelly Auma Nelima

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ABSTRACT

Animal and human bites are an important cause of morbidity, mortality and loss in person years. However, the public health importance of animal bites is under-estimated especially in developing countries where the true magnitude is unknown.

A cross-sectional study of vertebrate animal bites/scratch injuries and management of patients reporting at Kakamega Provincial General Hospital (PGH) in Western province of Kenya was carried out between 1stAugust to 31st October 2009. Data was collected using a semi-structured questionnaire and management practices observed. Locations of incidents were recorded using a hand-held Global Positioning System (GPS). In addition, hospital records on animal bites between 2006 and 2008 were analyzed to compare trends. *Epi-info 3.5.1* and Geographical Information System (GIS) mapping were used in data analysis.

During the study period, 207 bite patients were interviewed. Dog bites were constituted (71.5%), followed by bites from humans (16.8%), snakes (6.8%) and cats (3.4%). Dog bites were higher in children aged < 10 years (27.1%). Dogs of known ownership inflicted (91.9%) bites. Women aged 21-25 years were at increased risk of human bites. Anti-rabies vaccine was prescribed in 96.6% of the patients bitten by cats and dogs. Inadequate anti-rabies vaccine doses ranging between 1-3 was prescribed in 62.6% of the patients. Completion of prescribed anti-rabies vaccination course was significantly associated with age group 5-12, Kenya Expanded Program for Immunization (KEPI) as source of vaccine and being bitten on the upper extremities (p-value < 0.05). There were seasonal variations of animal bite injuries with peaks coinciding with breeding seasons of dogs. The bites clustered around Kakamega municipality declining away from the urban center.

Animal bites, especially dog bites are common in Kakamega and often affect children. Post-exposure treatment is inadequate and not in line with the national guidelines.

There is need to educate the community on dog ownership, safety around animals and management of bites. The Ministry of health should develop and disseminate management guidelines to health facilities at all levels. Use of spatial models to generate risk maps may be useful in control strategies.