Epidemiology of dog bite, a potential source of rabies in Guilan, north of Iran

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Objective: To determine epidemiological aspects of dog bite in Guilan Province, north of Iran.

Methods: An analytical cross-sectional study was conducted on 1 643 cases of dog bites who presented at rabies vaccination centers in Guilan, Iran from June 2011 to May 2012. Data including demographic characteristics of dog bite cases, characteristics of biting dog, treatment and preventive measures carried out, and dog bite incident circumstances were collected. Independent t-test, ANOVA, Fisher exact test and chi-esquare test were used.

Results: Dog bite incidences in men and Women were 179.4 and 55 in 100000 populations, respectively. Incidences in urban and rural were 72.8 and 181.9 in 1.00 000 populations, respectively. The highest percentage of victims (20.1%) was in 20-29 years old age group. Majority of dogs (92%) were owned. Victims in the
highest percentage (26.6%) were dog owners. Most of dog bites were occurred in houses (58.5%). Entering to the dog’s guarding territory was the most common circumstances (27.6%). Injuries most commonly involved the lower extremities (51%). Rabies vaccine, rabies immunoglobulin, tetanus vaccine and tetanus immunoglobulin were administered for 100%, 23.2%, 74.8%, and 9.1%, respectively. There were significant differences between men and women in term of area and place of bite incidence and dog ownership (P < 0.05). Mean age differences among categories of dog ownership, dog bite circumstance, and bitted site of body were significant (P < 0.05).

**Conclusions:** Designing comprehensive educational programs to reduce dog bite incidence based on gender and age of target groups can be useful.

**Keywords:** Epidemiology, Dog bite, Rabies