

## E80 Fatal Dog Attacks: An Eight-Year Study From 2009 to 2016 in Italy

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After attending this presentation, attendees will better understand the dog-bite phenomenon that is becoming increasingly important in regard to both political and public health issues with implications for human and animal welfare. This presentation will also evaluate the rise in occurrences of human fatalities caused by dogs in Italy.

This presentation will impact the forensic science community by providing scientific data from a well-controlled experiment, offering increased information for forensic investigation. An appropriate forensic approach should include an exhaustive analysis of the scene, the victim, and the dog.

Domesticated animals, particularly dogs, have provided companionship, labor, recreation, and entertainment for humans; however, as a result of the most diverse causes, this interaction has not been free of conflicts. The alarming statistics reported around the world reveal that dog attacks today represent a health hazard in which prevention strategies were not always successful.<sup>1, 2</sup> Most of the dogs involved in these events are known to the victim or belong to him/her.

Research identified a striking co-occurrence of multiple, controllable factors: (1) no able-bodied person being present to intervene; (2) the victim having no familiar relationship with the dogs; (3) the dogs owner failing to neuter/spay the dog; (4) a victim's compromised ability, whether based on age or physical condition, to manage their interactions with the dog; (5) the owner keeping dogs as resident dogs, rather than as family pets; (6) the owner's prior mismanagement of the dogs; and, (7) the owner's abuse or neglect of dogs. Four or more of these factors were present in 80.5% of cases; breed was not one of those factors.

This Dog Bite-Related Fatality (DBRF) study was based primarily on media reports that identified the number of fatal dog attacks, victims' sex and age, and the breed of the dogs in Italy.

This study found 19 DBRFs in Italy from 2009 to 2016 (2.37 cases per year); these data increase sharply in relation to a previous study that describes 32 DBRFs between 1984 to 2009, with a frequency of 1.28 cases per year.<sup>3</sup> The study found no significant difference based on victim's sex (8 women and 11 men). As previously described, the study confirms that dogs are known, or belong, to the victim (14 cases); in 4 of the other cases in which the victim did not know the dog, the aggression was conducted by mongrel dogs. As previously described, the victims are often more than 65 years of age (47.4%) or less than 5 years of age (42.1%). Finally, the study found no specific breed was more likely to injure a human over another breed.

Aggression causes are poorly known (for example, if the death is caused by the human aggressor to the dog or if it is an unexplained event). Certainly, when DBRF occurs, there are emotional implications in public opinion. This should promote the use of targeted studies, which are still lacking both internationally and, to a greater extent, nationally.

## **Reference(s):**

1. De Munnynck K., Van de Voorde W. Forensic approach of fatal dog attacks: a case report and literature review. *Int J Legal Med.* 2002;116(5):295–300.

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- <sup>2</sup> Salem N.H., Belhadj M., Aissaoui A., Mesrati M.A., Chadly A. Multidisciplinary approach to fatal dog attacks: a forensic case study. *J Forensic Leg Med.* 2013;20(6):763–766.
- 3. Ciceroni C., Gosticchi S. (2010). Indagine epidemiologica sulle aggressioni ad esito letale in Italia negli anni 1984-2009.

## Fatal Dog Attacks, Italian Cases, Dog

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