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Answer: Right superficial femoral puncture from dog bite

The incidence of vascular injury following dog bite has been reported to be about 11.6%, majority of which occurs in the extremities (9.3%).¹ The puncture mark on the skin can be small and in most cases sealed by the time the victim present for medical attention. Any history of initial bleeding particularly of arterial spurt immediately after the dog bite should warrant a careful examination of the wound and even an angiogram if the suspicion of vascular injury is high, although only 28% of routine angiograms of suspected vascular injury following dog bite demonstrated significant arterial vascular injuries.²

Delay in seeking treatment as in this case or a missed diagnosis of vascular injury resulting from a dog bite, may lead to the formation of a pseudoaneurysm (Figure 1) as in this case or more commonly an occlusion of the vessel. Infection risk is in the order of 3-17%.³

Management of any dog attacked victims must include an initial primary survey for any immediate life threatening injuries, and all wounds should be examined carefully for any skin loss, joint penetration, and tendon, nerve or vascular injuries. Treatment will include thorough cleansing of all wounds and wound debridement performed if required.⁴ Tetanus injection should be given. However, only 10.5% of vascular injury requires an immediate operation to repair the punctured vessel. Antibiotics should be given



Figure 1: Right femoral angiogram showing contrast media filling up a large pseudoaneurysm sac. All SFA and profunda femoris vessels are patent with good distal filling.

only on indication such as hand wounds, puncture deep wounds and in immune compromised patients.³ For this case, the patient underwent urgent repair of the punctured right distal SFA and excision of the pseudoaneurysm successfully. He was also given tetanus shot and covered with antibiotics cefuroxime and metronidazole for 1 week.

REFERENCES

- 1: Benfield R, Plurad DS, Lam L, Talving P, Green DJ, Putty B, et al. The epidemiology of dog attacks in an urban environment and the risk of vascular injury. *Am Surg.* 2010 Feb;76(2):203-5.
- 2: Snyder KB, Pentecost MJ. Clinical and angiographic findings in extremity arterial injuries secondary to dog bites. *Ann Emerg Med.* 1990 Sep;19(9):983-6.
- 3: de Melker HE, de Melker RA. [Dog bites: publications on risk factors, infections, antibiotics and primary wound closure]. *Ned Tijdschr Geneesk.* 1996 Mar 30;140(13):709-13.
- 4: Young S. Dog attacks. *Aust Fam Physician.* 1997 Dec;26(12):1375-7.