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FEMORAL ARTERY LACERATION FOLLOWING DOG BITE INJURY IN A SMALL-BREED DOG: A CASE REPORT

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Abstract: Bite wounds are one of the top three causes of trauma in dogs, with an overrepresentation of small-breed intact males. Depending on the severity and the location of the wounds, they can be minor or can lead to serious and life-threatening complications. This report aims to highlight the importance of detailed examination and careful monitoring of a patient presented with bite wounds, despite the first clinical appearance. A 4-year-old intact male Jack Russel Terrier was presented to the Emergency Clinic of FMV Cluj-Napoca after being bitten by another dog. It presented two skin wounds, one in the right inguinal region, where the femoral artery was exposed and the other one on the right thigh. Surgical debridement, Penrose drain application and a Tie-Over bandage were performed in the inguinal area, as well as prescrotal orchiectomy. Two days later the patient's clinical status deteriorated and active bleeding signs were observed from the inguinal wound site. At a closer inspection the source of haemorrhage was found to be a laceration of the femoral artery. The artery was clamped and limb amputation from the hip was performed. During hospitalization, the dog developed further complications and received blood transfusion and intensive care treatment, including conservative management of the thigh wound that became necrotic. After 9 days from presentation, the general health of the patient improved and it was discharged with ambulatory treatment for the wound. Thirty-six days later it was considered to be completely healed. In conclusion, this report underlines the potential for seemingly minor bite wounds to mask severe underlying injuries, emphasizing the critical need for thorough initial assessment, vigilant monitoring for delayed complications and prompt, aggressive intervention when necessary.

• Introduction

Dog bite wounds are among the most common traumatic injuries in dogs, particularly affecting small-breed intact males. Although these wounds may initially appear minor, they often mask extensive subcutaneous and muscular trauma due to the unique anatomy of canine skin. Bite wounds are considered contaminated and factors like devitalized tissue, dead space and poor blood supply promote bacterial proliferation. A thorough clinical evaluation and close monitoring are essential to identify potentially life-threatening complications early and guide appropriate intervention.

• Materials and methods

Case description:

A 4-year-old intact male Jack Russel Terrier was presented to the Emergency Clinic of FMV Cluj-Napoca after being bitten by another dog. It presented two skin wounds, one in the right inguinal region, where the femoral artery was exposed and the other one on the right thigh. Surgical debridement, Penrose drain application and a Tie-Over bandage were performed in the inguinal area, as well as prescrotal orchiectomy [Fig. 1]. Two days later the patient's clinical status deteriorated and active bleeding signs were observed from the inguinal wound site. At a closer inspection the source of haemorrhage was found to be a laceration of the femoral artery [Fig. 2]. The artery was clamped and limb amputation from the hip was performed. During hospitalization, the dog developed further complications and received blood transfusion and intensive care treatment, including conservative management of the thigh wound that became necrotic. After 9 days from presentation, the general health of the patient improved and it was discharged with ambulatory treatment for the wound.



Fig. 2 Laceration of the femoral artery secured with a hemostatic clamp

• Results and discussion

Following discharge, the patient was brought in daily for ambulatory wound care, which included lavage, antisepsia, and bandage replacement. Thirty-six days after discharge the patient was considered fully recovered, with no residual hematomas, normal hematological and biochemical values, and a completely healed wound [Fig. 3].



Fig. 1 Penrose drain and the Tie-Over bandage in the inguinal wound



Fig. 3 Progress of healing on the right thigh wound: (A) Day 5; (B) Day 12; (C) Day 17; (D) Day 24; (E) Day 36

• Conclusions

