Treatment of Burnt Wildlife

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Introduction

The role of vets is to assess, provide initial treatment, dispense medication and perform follow-ups on burnt wildlife. Wildlife likely to be brought in include koalas, ringtail possums and kangaroos. Reptiles and echidna are often only found some days later. These notes will focus on marsupials.

1. **Assess the burns**

   Burns to greater than the feet and a small part of the face have a guarded prognosis. Euthanasia is indicated for extensive burns, aged animals, burns to genitalia, eyeball rupture (from the heat), broken limbs/paralysis (from accidental trauma).

2. **Assess the depth of the burns**

   a. Superficial – blisters, redness, painful

   b. Superficial partial thickness: blisters, redness, painful, brisk bleeding on pin prick. Will heal in 2 weeks

   c. Deep partial thickness: blotchy skin, reduced pain, hair loss, slow bleed on pin prick. Will heal in 2 – 4 weeks

   d. Full thickness: not painful, not bleed, eschar- leathery skin present

3. **Assess the animal**

   Check for lactation status, age, presence of 1 testes (in koala) and concurrent disease – such as Chlamydia, skin infections (Sarcoptes) etc.

4. **Start fluids**

   Intravenous fluids can be given to koalas during treatment. However, subcutaneous fluids are simple, cheap and easy to give, and much less stressful. Aim to provide 10 – 15% of fluids bodyweight daily. This may be divided into 3-4% bodyweight 3 – 4 times daily. Continue fluids for a minimum of 5 days. Give fluids at each subsequent bandage change.

5. **Sedation/anaesthesia**

   Burns need to be assessed and treated under sedation/ anaesthesia.

   Koala – sedate with diazepam 0.5 – 1mg/kg IM, then mask with iso/02 or use alfaxan 1-2mg IM/IV. Zoletil can also be used (check Virbac for dose rate).

   Possums: sedate with diazepam 0.5 – 1mg/kg IM and mask down with iso/02.

6. **Treatment of burns**

   Soak burns for 10 minutes in 0.9% saline. Change the water as soon as it becomes dirty. After 10 minutes, necrotic tissue becomes white or flaking edges of skin are seen. This is gently debrided using scissors. Do not leave flaps of dead skin – they do not protect the burn but harbour bacteria. Iodine can be used for soaking burns.

   Apply Flamazine (Smith & nephew®) evenly over all burnt surfaces.

   Apply a non-adherent dressing – such as Melolin (Smith & Nephew®) to the burnt areas.

   Apply a bandage with Vetrap®/coplus® – work from the toes up. Bandages need to be light and firm, not tight. Bandages need to be changed every second day at the least frequency.

Flamazine (Smith & Nephew®) lasts only 24 hours and thus a balance between repeated sedation and bandage changes needs to be made.

6. Nutrition and nursing

Restarting these animals on appropriate nutrition is important. Electrolyte replacers can be given for the first 3 days in between feeds. Assist feeding with species-specific milk provides nutrition and fluids. Koalas must have access to 2kg of leaf which is sprayed with water several times daily.

Access to fresh water changed daily and more often if required.

7. Antibiotics

Antibiotics are indicated. The fluoquinolones are suitable as *Pseudomonas* aeruginosa is a common invader of burns in wildlife. Faecal flora often contaminate burns. Antibiotics should be given by injection for better activity and to preserve gut flora. Doses of enrofloxacin at 10mg/kg q12h 7-14d for possums and koalas have been used.

8. Analgesia

Pain relief has not been well-researched in Australian marsupials. Doses are suggestions for what appears to have worked in the past. Meloxicam is not effective in koalas. Alternatives include buprenorphine 0.02mg/kg SC q 12h or Tramadol 1-2mg/kg SC q 12h.

9. Vitamins

Vitamin supplementation may benefit. Both Vitamin C and E have been shown to play a role in the healing of burns. Vitamin B complex may also benefit as these animals present starving. Vitamin A plays a role in the formation of skin.

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References

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