

# VET BIOSIST™ CASE REPORT

## The Lurcher Cross “Shadow” Success Story

*Clinical Case presentation of VET BIOSIST™ used to enhance skin regeneration. Case “Shadow” Jewel.  
Recorded on behalf of Mr P.D. Pearson BVSc, MRCVS  
Castle Veterinary Group,  
Cornwall, UK*

### Day 1

A 5 year old Lurcher Cross Collie dog presented with a severely degloved right lower anterior hock involving metatarsals, tendon and bone with a wound area approximately 18cm x 7cm (7x 2.5 inches). Under anaesthesia the wound was cleaned with dilute chlorhexidine solution, necrotic tissue debrided then dressed with an aqueous dermal gel and non-adhesive dressing. The patient was hospitalised until it was clear that viable treatment options were restricted to amputation or scar tissue and retraction which would severely restrict use of the limb or to try to regenerate a nearly unsalvageable hock using VET BIOSIST™ evaluation samples provided by COOK VETERINARY PRODUCTS.

### Day 6

VET BIOSIST™ sheet was used for the first time at the clinic. There was no exudate, skin contraction had commenced and the web of the foot was infected. The wound was cleaned with dilute chlorhexidine solution and necrotic tissue was debrided before applying a single layer of two VET BIOSIST™ sheets, each 100mm x 70mm, end to end with a 1cm overlap. The sheets were sutured opposed to the skin edge, with interrupted 4.0 absorbable monofilament sutures at 5-10mm intervals, kept hydrated and protected by a gel (Aloe Vera). A damaged metatarsal was amputated and small pieces of unused sheet were cut into fragments, hydrated, and packed into the infected web of the foot around the point of amputation. A non-adhesive dressing (Allevyn by Smith & Nephew) and an outer elastic adhesive bandage were applied, changed first daily then every three days.

### Day 21

VET BIOSIST™ was incorporated and indistinguishable from the regenerating tissue in the wound. There was no



Result of VET BIOSIST™ treatment 21 days after injury.

infection and fine highly vascularised granulation tissue was well established over traumatised muscle, tendon and bone with minimal skin contraction. Epithelialisation at the edge of the wound had regenerated 5-10mm of normal looking skin with hair growing from the edge of the wound reducing the wound area by 10-15%. The webbed area of the foot had healed with no infection, allowing the dog to walk on the bandaged leg. The dog was discharged and had the dressings changed at the clinic as an outpatient.

### Day 51

The wound area was reduced by 40-45%, with normal looking skin and hair, without scar tissue, 45 days after the sheets were applied and limb function seemed to be normal. Only the small skinless area remaining was dressed using the same regime every 4 - 5 days.

### Day 60

The skinless area remaining is only a “hairline” expanding into an area the size of a thumb nail near the foot. Full recovery was achieved about 70 days after the date of the injury. ■

# Internal Use of *VET BIOSIST*<sup>™</sup> in Canine Tumor Resection

*Clinical Case presentation of VET BIOSIST<sup>™</sup> used internally:  
Case number AMC 10782A, 26/8/98  
Dr David Crossely*

An 11 year old 27kg cross labrador dog presented with a swelling over the left frontal sinus.

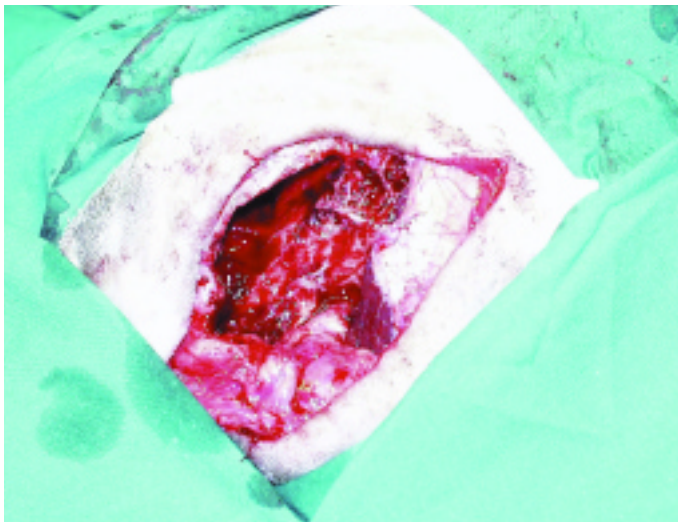
Surgical exploration revealed an expansile mass, which on histological examination, proved to be a transitional cell carcinoma. Surgical debulking was performed in the hope of having a palliative effect. This included excision of the medial wall of the orbit and all bone overlying the frontal sinus.



*Skin sutured closed over VET BIOSIST<sup>™</sup> patch.*

The skin incision was sutured closed in the normal manner.

Healing during the first three weeks is noticeably better than expected as there is minimal deformity compared to conventional closure of this kind of wound. Tissue regeneration has maintained the shape of the frontal region and provided an orbital rim holding the skin in an almost normal position. Healing progressed quickly with the *VET BIOSIST*<sup>™</sup> patch preventing air moving into the sinus and affecting the skin. ■

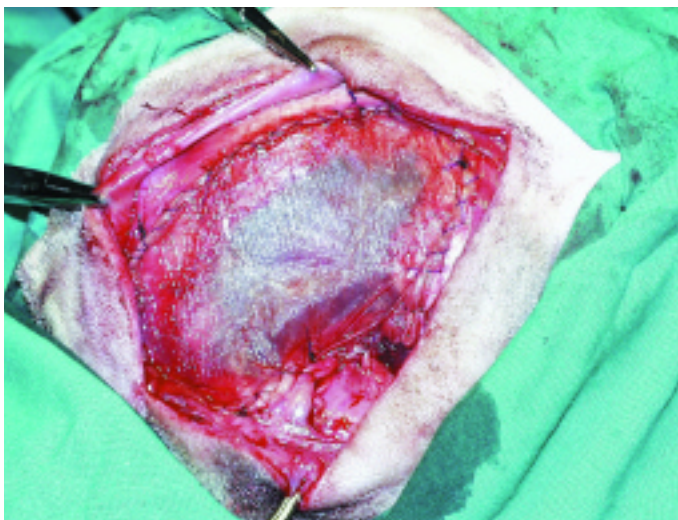


*Frontal sinus exposed.*

A single sheet of *VET BIOSIST*<sup>™</sup> was trimmed to be larger than the shape of the defect, rehydrated and secured at the perimeter as a patch using 2 metric interrupted PDS<sup>®</sup> (Ethicon) continuous sutures.



*Normal skin profile.*



*VET BIOSIST<sup>™</sup> sutured over the defect.*

**COOK<sup>®</sup>**  
**VETERINARY PRODUCTS**

Visit the NEW  
COOK VETERINARY PRODUCTS website at:  
**www.cookvet.com**





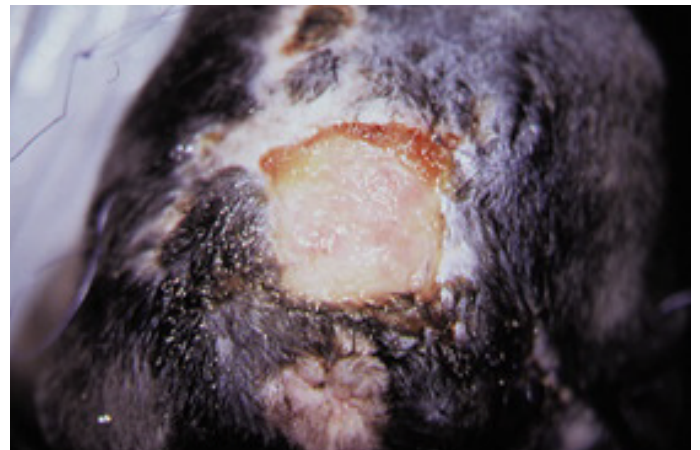
# External Use of *VET BIOSIST*<sup>™</sup> in Feline Delayed Skin Closure

*Clinical Case presentation of VET BIOSIST<sup>™</sup> used externally: Case "Georgie" Robbie. Reported by Robert Hardie, DVM, Queen Mother Hospital, Royal Veterinary College, Hatfield. U.K.*

Granulation tissue developing in the wound bed was extensive but irregular because of difficulties maintaining the sheets adherence to the tissue. (Fenestrating and suturing the sheet to the middle of the defect is now known to minimise this complication.)



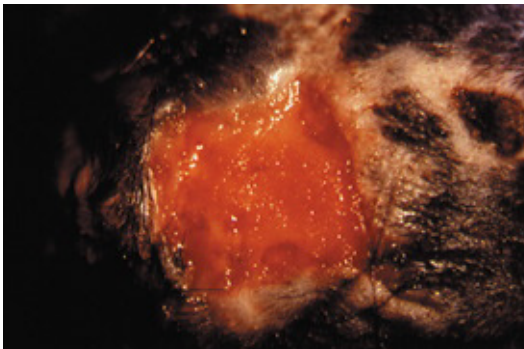
*Delayed Closure after tail removal.*



*13 days after initial treatment.*

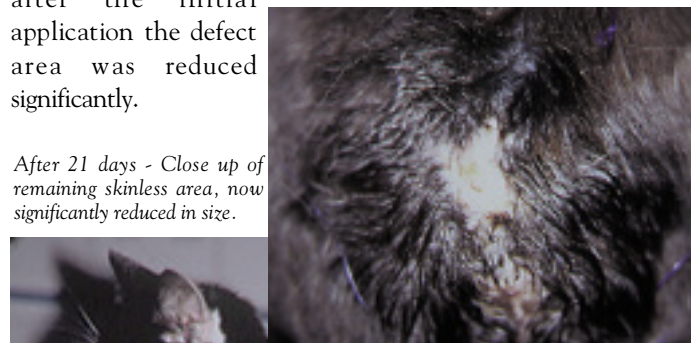
Georgie, a six year old domestic short haired, spayed, female cat was previously treated for extensive skin necrosis posterior to the rectum near the tail, caused by chronic discharge from an untreated rectal fistula. Delayed closure involving removal of the tail left a scarred and necrotic defect approximately 10 - 12 square cm in area.

Simultaneously, 5-10mm of normal looking skin and hair regrowth followed epithelialisation at the edges of the defect. Skin contraction appeared to remain retarded and 13 days after the initial application the defect area was reduced significantly.



*Close up of defect.*

The defect was thoroughly cleaned and debrided before applying a *VET BIOSIST*<sup>™</sup> sheet, as though it was a skin graft. The lyophilised sterile sheet of SIS was trimmed to be slightly larger than the area of the defect, hydrated with saline and sutured with interrupted absorbable monofilament sutures at 5-10mm intervals. During the first three days, saline wetted cotton gauze and petroleum impregnated dressings adhered to the partially incorporated *VET BIOSIST*<sup>™</sup> graft and well vascularised granulation tissue causing the edges of the graft to lift off the wound bed during dressing changes. After reapplying *VET BIOSIST*<sup>™</sup> to these areas and covering with hydrated non-adhesive dressings and a protective bandage, the outer layers of dressing and bandage were well secured to the peripheral skin with several stay sutures.



*After 21 days - Close up of remaining skinless area, now significantly reduced in size.*



*At 21 days - patient was discharged and made a full recovery after 2 - 3 weeks.*

At 21 days after initial application, the skinless area had reduced to the size of a thumb nail and the patient was discharged from hospital. A total recovery was achieved after another two to three weeks. ■