

Reconstructive Front Limb Operation with Subcutaneous Implantation in the Lower Chest Region due to Tissue Loss in a Cocker Spaniel

Nidal Hassan*

Department of Veterinary Surgery, Vitallia Animal Hospital, Lebanon

***Corresponding Author:** Nidal Hassan, Department of Animal Science, Vitallia Animal Hospital, Lebanon.

Received: April 24, 2019; **Published:** May 21, 2019

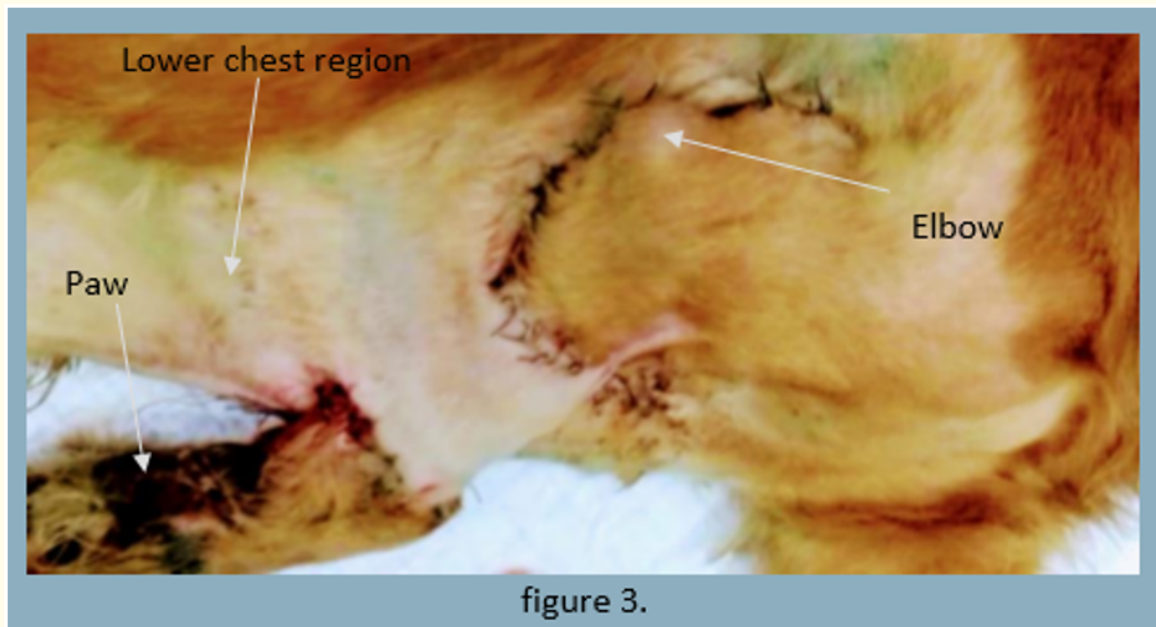
Martin, a 1 year old cocker spaniel was reported to different veterinary clinics across Lebanon with a wounded right front limb. The Dog was said to be attacked by two dogs and has been suffering for a month without proper treatment. Most veterinarians suggested amputation of the limb due to its severe inflammation but the owners refused to proceed with the surgery and contacted Dr. Nidal Hassan to check if the dog can be given another chance.

When the dog arrived to Dr. Nidal's clinic, it had a 9 cm long wound with an exposed ulna and radius. The extensor digitorum communis muscle was torn open and no skin coverage around the affected area as shown in figure 1 and 2.



The decision was taken to give the dog another chance by giving him a reconstructive limb surgery. The dog was prepared for surgery the same day it arrived to the clinic.

The surgical plan was to graft skin from the chest region into the affected area of the limb but the muscles were weak and not enough to cover the exposed part. Instead of doing the regular skin grafting, the exposed part of the limb was transplanted subcutaneously at the level of the lower chest where it was covered with protective skin and stitched for three weeks which helped the skin to reform and get attached to the limb while helping the muscles to heal and grow in a suitable protective environment, otherwise the dog's tendons and tissues would've rotted away as shown in figure 3.



The dog was hospitalized with heavy bandages in order to prevent self-harm.

Anesthesia protocol

- Sedation: Midazolam 0.20 mg/kg IM and Butrophenol 0.30 mg/kg IM.
- Induction: Propofol 1.00 mg/kg.
- Maintenance: Isoflurane.

After 3 weeks, the second operation took place where the limb was extracted from the lower chest with enough skin and muscle mass that have grown over the period of three weeks to cover the wounded part. The muscles and internal tissues regenerated covering the exposed bones and the swelling in the lower limb was significantly reduced which indicated new blood vessel neoformation as shown in figure 4. Extra skin flaps were excised with the limb from the lower chest region to cover the interior part.

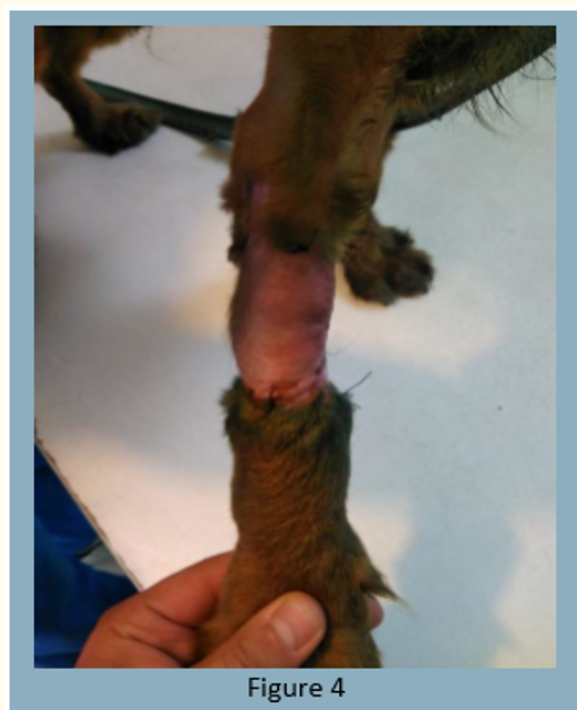




Figure 5
2 weeks after the second operation showing remarkable healing of the skin graft with hair growth.



figure 6.
2 weeks after the second operation showing a healed lower chest incision with scar tissue formation.

Volume 4 Issue 4 June 2019

©All rights reserved by Nidal Hassan.