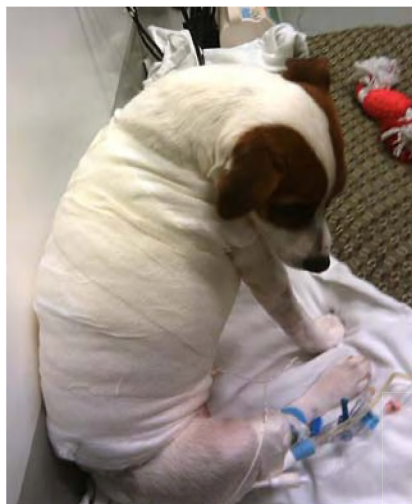




College News

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Accidentally poisoned and burned puppy recovers with skin flap surgery and honey



Melanie Miller and her Jack Russell terrier, Branson, were traveling the day after Thanksgiving when Miller noticed something was wrong. Usually jovial, the seven-month-old puppy seemed to fade, his eyes began twitching, and he started tremoring in the car. Miller rushed him to a nearby emergency veterinary hospital, where doctors delivered intravenous medicine just in time to get the seizures under control.

Spoiled fish turned out to be the culprit. Fish can spoil quickly, and Branson had eaten leftover fish that had apparently grown mold laden with neurotoxins. For hours the situation looked uncertain. As soon as they stopped the medicine the tremors would start again, but with care and patience the tremors finally passed.

Yet that was just the beginning of Branson's troubles.

"I noticed a large discolored patch on his belly that hadn't been there before," said Miller. "I wasn't sure what it could be--maybe a reaction to the medicine? It looked really painful and he didn't seem happy. When we got home to New York I brought him straight to Cornell."

Dr. Rebecca Kessler, third-year medicine resident, first saw the case. The oddly rectangular-shaped wound was worsening, turning black and leathery and starting to ooze. Kessler gave Branson pain medicine and antibiotics and took a skin biopsy. The results showed that Branson's skin had been burned.

Dr. Marc Hirshenson, third-year resident in small animal surgery, removed the dead skin before it could become infected. Using an innovative technique to discourage infection, Hirshenson also applied a special topical treatment called Manuka honey to help heal the wound. Well known for its antimicrobial properties, honey has been used by many cultures throughout history as a way to treat wounds and ward off infection. Manuka honey is produced by bees that feed on nectar from the manuka tree in New Zealand, and licensed wound-care products around the world use it as a special ingredient.

"There has been some evidence in humans that manuka honey is especially good for healing wounds," said Hirshenson.

Over the next four days the wound improved, developing "granulation tissue" to help itself heal, a sign of a healthy body recovering. But the burn covered such a large area that it looked unlikely that it would fully close without surgery.

To help close the wound and avoid complications, Hirshenson performed a difficult skin flap surgery alongside Associate Professor of surgery Dr. James Flanders.

“Dogs have extra skin around their flanks, and their skin is relatively elastic,” he said. “We were able to stretch this extra skin to cover the area around the abdomen where Branson’s skin had burned and stitch it together around the middle.”

With careful manipulation of the excess skin they were able to close the wound, and after some rest and recuperation Branson was on his way to a full recovery.

“Our job is to help the body heal itself,” said Hirshenson.

“Branson had an amazing attitude the whole time that really shined through. He put up with us for a long time, happy to let us handle him even when he was in pain, and was always enthusiastic about walking and eating. His demeanor contributed a lot to his recovery.”

Branson returned home in early December, where Miller reports he is back to his old self.

