

The day Jolie went stiff

One Friday in January a 12 week old kitten called Jolie arrived at our practice as an emergency. Her owner had noticed that over the last two days it had become increasingly difficult for her to walk. Just six weeks earlier she had been found homeless, with deformed forelegs that made her walk knuckled over on her wrists. Because she was walking on skin and not her footpads, she had big sores on her wrists when she was adopted. Her owner had braces made for the legs which had allowed the wounds to heal by the time we saw Jolie - but without braces she was still knuckling over.

On the initial examination, all her nerve function tests were normal. She was mentally alert but appeared stiffer than normal. We performed some blood tests to exclude other diseases that could cause mild stiffness and by the next day it was clear that she had tetanus. Tetanus is caused when a bacterium called *Clostridium tetani* enters a deep wound and releases a chemical called tetanus toxin. This binds to nerve endings and blocks the OFF switch for nerve impulses, resulting in severe muscle spasm every time the nerves are stimulated.

Jolie was given tetanus antitoxin intravenously. It was difficult getting hold of the antitoxin over a weekend but the pharmacists at Dora Nginza Hospital were absolute stars. Jolie's owner also helped, by collecting the treatment from the hospital. Tetanus antitoxin can only neutralize toxin that has not already bound to nerve endings so affected patients often take weeks to recover. Jolie was given antibiotics to kill any remaining bacteria releasing the tetanus toxin. A day later it became apparent that the muscles controlling the movement of her rib cage and diaphragm had become exhausted and she needed to receive oxygen.

She was on oxygen for three days before she had recovered sufficiently to breathe unaided. During this time she needed intensive nursing - monitoring her oxygen saturation, controlling her body temperature, making sure she weed and pooped, turning her to prevent pressure sores, cleaning her if she soiled herself and holding her up so she could feed and drink. Over the next two weeks she made a full recovery.

Tetanus is very rare in cats because their nerves don't easily bind the tetanus toxin. They are 7 200 times more resistant to tetanus than horses and 2 400 times more resistant than humans. The *Clostridium* bacteria live in the soil and we think Jolie got infected when she kept walking on her sore wrists. There can be a delay of several weeks between the bacterium entering the body and the signs of tetanus appearing - especially in cats. So much so that often the infected wound has actually healed.

We would really like to applaud Jolie's owners, who not only took in this damaged little tyke, but did everything they could to make sure she made it and was restored to health. Little animals like Jolie need special care and thanks to the facilities we have in our practice, we were able to not only give her the necessary medical care, but also to monitor her 24 hours a day.