

With Improved Owner Compliance and a Better Understanding of the Physiology of Inactivity, Can Spinal Cord Injury Therapy Become More than Just Crate Rest?

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Short Communication

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DESCRIPTION

The prescription of rest following spinal cord injury across species is commonplace. It is intuitive that following a major injury or surgical fixation it may be best to “to take it easy.” After all, no one would argue that a person recovering from spinal cord injury should avoid doing something outlandish like sky-diving or running a marathon, but perhaps something more mundane or even “typical” like ascending a flight of stairs or even walking on slippery floors should also be avoided in the initial stages of recovery. In our canine patients who undergo spinal trauma, the average owner recognizes that immediately following injury their pet should not jump out of a car or off of a couch. But many times the act of jumping up on his or her owner’s leg as a greeting or allowing his or her pet to race toward the door following a doorbell ring are not recognized to be contraindicated following spinal cord injury. The vertebral column plays a critical role in supporting the body and in functional movement in both humans and our veterinary species. Thus, it only makes sense that it should be rested following injury to encourage healing...right?

But, is there a contraindication to being too “careful” following spinal cord injury. Generally, we veterinarians tend to be overly cautious with our four-legged clients. One reason is our inability to communicate directly with our patients (i.e. the individual who has actually suffered from the spinal cord injury). Instead, we are communicating with our patient’s caretaker. In this vein, our relationship is more akin to that of a pediatric neurosurgeon and his or her patient. The medical doctor speaks to the parents of his or her pediatric patient. When it comes to rehabilitating dogs after a spinal cord injury, the lack of direct communication makes doing harm more of a reality; it is much easier to “overdo” it when it comes to rehabilitating a family member than oneself. We can stop doing an exercise when it hurts or tell our doctor there is an issue. This is much more difficulty when it comes to a pediatric patient or a canine. As a result, we tend to be overly cautious, instructing owners to perform STRICT cage rest following spinal cord injury and only allowing the patient time out of the kennel to void three to four times per day. The result of being overly cautious is the loss of the vertebral column’s supportive structures -muscle, joint, and cartilage and bone health compromised by strict bed rest.

We also worry that an owner will take too many liberties in the post injury period. That they will only do a small percentage of what is asked of them. That compliance with our at home treatments and rehabilitation protocols will be poor. It is well known that humans patients do not adhere to doctor’s instructions-according to the World Health Organization only 50% of people suffering from chronic illness adhere to prescribed treatments, for example ^[1]. We also know that the willingness to participate in rehabilitation following spinal cord injury is instrumental in successful rehabilitation in human patients ^[2,4]. Similarly, owner compliance in veterinary medicine is low ^[3]. If we veterinarians, expect compliance and participation to be poor, then we overcompensate when prescribing at home exercises and therapies. We tend towards being overly cautious with at home activities; pets are condemned to crate rest and inactivity. Hopefully, a healthy balance between participation and compliance can be reached allowing for a foundation of trust to emerge between veterinarians, their canine patients and human clients that will allow for therapy and exercise routines following spinal cord injury to become more than just condemnation to a crate.

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