International Continence Society

August 22-26, 1999

29th Annual Meeting

eting Denver, Colorado USA

Category No. 1 Video Demonstration

300

Ref. No.

Abstract Reproduction Form B-1

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Title (type in CAPITAL LETTERS) **VESICAL PACEMAKER: IS IT POSSIBLE ?**

Aims of study - To evaluate the results of tripolar stimulation of the sacral roots on dogs and identify the factors that could modify the response of nerve fibers stimulation.

Material and Method - Fifteen male dogs were utilized in this experiment. An electrode was implanted through the laminectomia between L7 e S2. The bipolar electrode was implanted in 2 animals, in the others the tripolar. The influence on the field of stimulation was evaluated on 2 dogs in these ways: clean field; with blood; saline solution. In the last experiment the result of the stimulation is evaluated in 48 hours periods.

Results - Six experiments were performed to stablish the methodology. There were an answer to the electrostimulation of the sacral roots in 9 dogs. In two dogs the bipolar electrode was utilized, observing the bladder contraction and the external sphincter. In the cases where the tripolar electrode was implanted the contraction of the bladder and the non-contraction of external sphincter or a contraction with low amplitude was verified. The influence of the field is important on the results of the electrostimulation, decreasing the answer when the field of the stimuli is full with blood and worsen with the saline solution. In the 48 hour experiment, it was necessary to raise the current to promote the contraction of the bladder, and with this intensity a similar contraction to the bipolar electrodes was obtained.

Conclusion - The use of the tripolar electrodes promoted contraction of the bladder with or without a small contraction of the external sphincter. Local alterations like edema, field of stimuli with blood or saline solution modify the result to the electrostimulation.