Title: Enhanced human-animal interaction to decrease stress of veterinary visits in pet dogs

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Abstract: In response to stressful stimuli, arginine vasopressin (AVP) and corticotropin releasing hormone activate the hypothalamic pituitary adrenal axis to stimulate cortisol secretion. Studies have shown cortisol as an effective stress indicator in dogs. However, studies on AVP as a central stress marker are scarce. Veterinary visits can be stressful for pets due to novel environment, separation from owner, presence of strangers and other stimuli. In the current study, we investigate if enhanced human interaction (EHI) decreases the stress associated with veterinary visits in pet dogs. We measured plasma AVP, cortisol, and physiological parameters e.g. heart rate, respiratory rate, body temperature, and separation anxiety score in healthy dogs dropped off for physical examination immediately after drop-off (pre-exam) and 60-minutes later (post-exam). The EHI group received had two, 5-minute walks with petting, and extra petting in the kennel during their 60-minute stay at PHC. The control group did not receive human interaction when kept in kennel. Post-exam plasma cortisol levels decreased in both groups, but the difference was not significant. Post-exam plasma AVP levels in the control group were significantly higher. The change in the EHI group was not significant indicating that AVP is a more sensitive measure of stress than cortisol. There was no significant change in heart rate and body temperature. In conclusion, enhanced human-animal interaction in the form of short walks and petting, decreases veterinary visit related stress in dogs as measured by plasma AVP levels.

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