Abstract
Objective—To evaluate the ability of various subjective and objective measurements to determine the presence and degree of postoperative pain in cats.

Design—Randomized controlled prospective clinical study.

Animals—18 healthy client-owned cats.

Procedure—Cats were randomly assigned to 3 groups of 6: control, tenectomy, and onychectomy. Jugular catheters were placed the day prior to surgery. All surgeries were performed by the same surgeon, and all observations were made by the same blinded trained observer. One hour prior to the surgery and at assigned intervals for 36 hours after surgery, heart rate, respiratory rate, and rectal temperature were measured. Scores were assigned for 3 interaction responses, including response to palpation, by use of simple descriptive scales, and to 2 pain assessments by use of visual analogue scales. Blood was collected to measures plasma β-endorphin and cortisol concentrations. Butorphanol was administered to all cats before surgery and to any cat subjectively assessed to be experiencing pain after surgery.

Results—Only visual analogue scores and response to palpation scores differed significantly between control and surgical groups.

Conclusions and Clinical Relevance—Determination of the presence of pain in cats can be made on the basis of observation and interaction by a trained observer. Physiologic measurements, including plasma cortisol and β-endorphin concentrations, did not differentiate between control cats and cats that underwent surgery.

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