More Bark, Less Bite

IS ANIMAL-ASSISTED THERAPY USEFUL IN IMPROVING INPATIENT COMFORT OUTCOMES?

Pets, particularly dogs, are often seen on the pediatric ward for playtime with patients. Does evidence suggest that they have a positive effect on measurable outcomes?

The study.

This randomized controlled trial sought to determine if canine animal-assisted therapy improved pain scores and patient satisfaction in adults undergoing elective knee and hip arthroplasties. Patients assigned to the treatment group were visited daily for 3 days by a certified pet therapy dog for 15 minutes before physical therapy sessions. Outcomes were determined by using a validated visual analog scale (VAS) for pain and the Hospital Consumer Assessment of Healthcare Providers and Systems survey from the Centers for Medicare and Medicaid Services to measure patient satisfaction.

The key findings.

A total of 72 patients were randomized to treatment and control groups, with 36 in each group. Those undergoing animal-assisted therapy had lower VAS scores. After the first session, the treatment group (VAS 5.2, SD 1.4, 95% confidence interval [CI] 4.71–5.64) had an average VAS pain score 2.0 U lower than that of the control group (VAS 7.2, SD 1.4, 95% CI 6.71–7.3, \(P < .001\)). The final VAS score difference at day 3 was 2.4 U (\(P < .001\)).

Compared with the control group, the treatment group had a higher proportion of top box scores in surveys for nursing communication (92%, 95% CI 78%–98%, vs 69%, 95% CI 52%–84%, \(P = .035\)), and for pain management (94%, 95% CI 81%–99%, vs 72%, 95% CI 55%–86%, \(P = .024\)). Overall hospital rating was found to be significantly higher in the treatment group compared with the control group (9.6, SD 0.7, 95% CI 9.3–9.8, vs 8.6, SD 0.9, 95% CI 8.3–8.9, \(P < .001\)).

No patients dropped out of the study, and no patients opted for less than the maximum amount of time engaged in pet therapy. And most importantly, no animals were harmed in this study!

Why do we care?

Animal-assisted therapy is increasingly popular, but has not been assessed with high-quality studies, especially in pediatrics. This study specifically examines postoperative adults by using 1 very hard-working dog, thus we cannot extrapolate...
it too far. However, it is a great example of improving outcomes with a nonpharmacological approach and of studying the outcome with validated measures. Perhaps proof of such positive effects could be used to justify the use of animal-assisted therapy to hospitals in the future.

Straight from the author’s mouth…

“It was a very rewarding experience and it was fun to study this form of intervention in a systematic way. In pursuing publication, 2 very real limitations needed to be discussed. The first is that the external validity of any study like this is markedly limited. There is no doubt that the experience of a single surgeon with a single dog cannot be extrapolated to all of our arthroplasty patients. The second is that the patients electing to enroll in the study were inherently self-selecting, introducing its own bias. However, the latter point may not be a detriment at all. In a field where mobilization and mobility is often why we do surgery, identifying patients who want to seek this alternative therapy is quite beneficial and offering it to them can only help their recovery.”


CAN KETAMINE BE ADDED TO OUR PAIN MANAGEMENT ARMAMENTARIUM?

Opiates, nonsteroidal antiinflammatory drugs, and acetaminophen (and perhaps dogs) are our mainstay therapies for children in pain. Ketamine is well known and used for its anesthetic properties in children for procedures, but can subanesthetic and subdissociative doses be used to treat pain as well?

The study.

This randomized controlled study evaluated the effects of intravenous (IV) 0.5 mg/kg ketamine, 0.5 mg/kg rectal ketamine, 2 mg/kg local peritonsillar ketamine, and the control of 2 mg/kg IV tramadol (an opiate not recommended for use in children in the United States) in children aged 5 to 15 years undergoing tonsillectomy in Turkey. Each of the 4 groups had 30 patients assigned. A blinded observer rated pain levels by using the Children’s Hospital of Eastern Ontario’s Pain Scale at minutes 15, 30, and 60, and at hours 2, 6, 12, and 24. This pain scale has a maximum pain score of 10. A blinded observer also rated sedation level by using the Wilson sedation scale at the same times.

The key findings.

All routes of ketamine provided effective pain control compared with IV tramadol. Pain scores were not statistically significant except for IV ketamine, which provided more effective pain control only at hour 6 (pain score of 5.19, SD 1.03, \(P = .045\)) and hour 24 (pain score of 4.86, SD 0.91, \(P = .01\)). There was no significant difference in the sedation score.

Why do we care?

Caring for hospitalized children often involves managing postoperative children, children with multiple comorbidities, and children in significant pain. Our usual pain therapies each have potential side effects and potential contraindications. We may hesitate ordering opiates for a child who has respiratory compromise or for a child with hypoactive intestines after an appendectomy. We may withhold nonsteroidal antiinflammatory drugs from a child because of bleeding risk, renal disease, or fear of gastric disease. Ketamine may be another pain medication that can be used alone or in conjunction with what we have now. A 2015 study in the American Journal of Emergency Medicine compared low-dose ketamine versus morphine for acute pain in adult patients in an emergency department and found that the 2 medications were comparable for pain relief.1 Maybe you shouldn’t order that dose just yet, but look forward to more studies investigating the role of ketamine for treating acute pain in children.


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