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Nerve blocks in sheep

Wagner and colleagues evaluated the effects of locally anesthetizing the sciatic and femoral nerves in sheep undergoing stifle surgery. Heart rate, mean arterial blood pressure and end-tidal isoflurane were recorded while sheep were anesthetized. At some of the observed time points, the mean heart rate in the sheep that had received no nerve blocks was significantly higher than in the sheep that had received the nerve blocks. Postoperatively, each sheep was assigned scores for comfort and attitude, movement, flock behavior, feeding behavior and appetite and respiratory rate. The authors noted no undesirable effects of this local anesthesia. However, under the conditions of this study, beneficial effects of the nerve blocks were minimal or not readily apparent.

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Side effects of control treatment

Routine laboratory procedures are stressful for animals but are necessary in many pre-clinical studies. Drude *et al.* show that multiple injections of cyclodextrin increased plasma corticosterone concentrations in female mice. Male mice that had received a single injection of saline had an increased glucocorticoid response to a second saline injection. Female mice that had been exposed to an acute psychological stress session had a decreased glucocorticoid response to a second homotypic stressor. In contrast, multiple psychological stress sessions lead to increased glucocorticoid release in female mice. Acute injection(s) of saline in male mice and of cyclodextrin in female mice led to transient lymphocytopenia. Further analysis showed that repeated stress–induced lymphocytopenia is glucocorticoid-dependent. Drude and colleagues conclude that laboratory stress can affect physiological parameters in mice, potentially altering study results.

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