MANAGING MIDLINE CELIOTOMY INCISIONS IN HORSES UTILIZING V.A.C.® THERAPY

Idaho Equine Hospital utilized V.A.C.® Therapy on midline celiotomy patients. Horses underwent exploratory laparotomies followed by immediate post operative application of V.A.C.® Therapy over the incisions for a total of 72 hours. The incidence of incisional infection was collected for up to 60 days post surgery.

INITIAL TREATMENT/APPLICATION OF V.A.C.® THERAPY

Exploratory laparotomies were performed by making full-thickness skin and subcutaneous tissue incisions followed by an incision through the linea alba. All patients received preoperative intravenous antibiotics. Post surgery, the linea alba, subcutaneous tissues, and skin were closed in layers with either suture or staples. A meshed non-adherent material (Adaptic®, Johnson & Johnson, Somerville, NJ) was placed over the length of the incision and extended approximately one inch on either side of the incision. A layer of foam (V.A.C.® Simplace™ Dressing) was then placed over the non-adherent layer and covered with a self-adhesive drape (V.A.C.® Drape). A 2.5 cm hole was cut in the center of the drape directly over the foam and a SensaT.R.A.C.™ Pad was placed over the opening. A layer of roll cotton was placed over the V.A.C.® Drape, and a belly band was placed around the patient’s abdomen. The patients were moved to a padded recovery stall and allowed to recover unassisted or with the aid of head and tail ropes based on the patient’s temperament (Figure 1). Following recovery after surgery, the belly band and roll cotton were removed, and the SensaT.R.A.C.™ Pad was connected to the V.A.C.® canister. V.A.C.® Therapy was then initiated on continuous mode at -125mmHg for 72 hours (Figure 2).

FOLLOW-UP

V.A.C.® Therapy was discontinued after 72 hours. The surgical site incisions were monitored twice daily until the patients were discharged from the hospital. Skin staples were removed at 14 days post surgery. Drainage, edema and infection, if present, were recorded at 24, 48, and 72 hours, and 7, 14, 21, 30, and 60 days post operatively.
CLASSIFICATIONS

Incisions were classified as “normal,” when there were no wound complications including drainage or marked edema at the surgical site, or as surgical site infections when there was persistent serosanguinous drainage collected either into the V.A.C.® Therapy canister during the 72 hours post surgery or following removal of V.A.C.® Therapy.

CLINICAL OUTCOMES/CONCLUSION

Clinical application on these patients showed that V.A.C.® Therapy was well tolerated and clinically applicable for augmentation of incision healing following midline celiotomy. A 0% infection rate was noted in these patients compared to surgical site infection rates of 17-23% typically found in patients whose celiotomy incisions are treated with standard therapies. Based on clinical observations, V.A.C.® Therapy remarkably reduced post operative edema and incision complications; however, statistical analysis and further studies will be needed to verify these data.

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Reference List


NOTE: As with any case study, the results and outcomes of this patient should not be interpreted as a guarantee or warranty of similar results. Individual results may vary, depending on the patient's circumstances and condition.

Please reference the V.A.C.® Therapy for Veterinary Use User Manual for specific indications, contraindications, safety information and detailed instructions for use.

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