INTRODUCTION
The anatomy of the equine gastrointestinal tract starts at the mouth and follows into the esophagus into the stomach. The terminal part of the stomach joins the small intestine which is the intestine: Current methods applicable to the horse. (Eds.), (pp. 416-453). Saint Louis: W.B. Saunders.

METHODOLOGY
Thirty-seven intestinal segments of the horse were used to compare the single layer continuous Appositional and single layer continuous Lembert techniques. The single layer continuous Appositional technique is a novel technique that we are purposing to compare it with the standard single layer continuous Lembert technique. Laboratory experiments was performed by immersing the sutured intestinal segments into a water bath and visualizing the formation of bubbles which indicated the leakage pressure, as well as the rupturing of the suture which indicated the bursting pressure. The time taken to execute the anastomoses, and the number of bites taken for each pattern, were recorded. Biomechanical testing was performed by immersing the sutured intestinal segments into a water bath and visualizing the formation of bubbles which indicated the leakage pressure, as well as the rupturing of the suture which indicated the bursting pressure. The results had demonstrated that the Appositional technique is a viable alternative to the Lembert technique for the purpose of end-to-end jejunojejunal anastomosis in the horse. This study is a set mark for future studies that can be done on the novel Appositional single layer continuous technique.

RESULTS
Jejunal segments (n=47) of 2 adult Arabian horses were tested. Subjects weighed approximately 450 kg. Horses were euthanized for reasons other than gastrointestinal disease. The difference in construction time between the Lembert group (mean, 24.23 min, n=19) and the Appositional group (mean, 21.74 min, n=18) were found to be statistically insignificant (P=0.3088). Leakage Pressure (P=0.3862) and Bursting Pressure (P=0.3135) measurements showed no statistically significant difference between the two groups. The number of bites (Lembert mean, 39 bites. Appositional mean, 35-22 bites) were also taken into consideration and verified no difference (P=0.1658).

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REFERENCES

ANATOMY OF THE EQUINE GASTROINTESTINAL TRACT

BACKGROUND:
The equine small intestine can be affected by a variety of disorders, which may require some form of bypass or anastomosis procedure. There are no published descriptions of the hand sewn end to end single layer simple continuous Appositional technique for equine jejunojejunal anastomosis.

OBJECTIVE:
To compare and evaluate differences in the single layer continuous Appositional and the single layer continuous Lembert with respect to construction time, leakage pressure and bursting pressure.

HYPOTHESIS:
We hypothesized that the time spent in the execution, leakage pressure and bursting pressure will be similar between the single layer continuous Lembert and the single layer simple continuous Appositional techniques. Since this is a pilot study, it is the first step to prove the efficacy of the Appositional technique by showing its similarity with the Lembert technique, considering the latter to be the gold standard.

METHODOLOGY:
Thirty-seven intestinal segments from two horses were used to compare the single layer continuous Appositional and single layer continuous Lembert techniques. The time taken to execute the anastomoses, and the number of bites taken for each pattern, were recorded. Biomechanical testing was performed to determine leakage pressure and bursting pressure.

RESULT:
The comparison in construction time between the Lembert group (mean, 24.23 min, n=19) and the Appositional group (mean, 21.74 min, n=18) were found to be statistically insignificant (P=0.3088). There were no also changes in leakage pressure (P=0.3862) and bursting pressure (P=0.3135) between the two groups.

CONCLUSION:
This study has demonstrated that the Appositional technique is a viable alternative to the Lembert technique, with respect to construction time, leakage and bursting pressures, for the purpose of end-to-end jejunojejunal anastomosis in the horse.