

Objectives: To compare haemoclips and ligatures, for occluding equine mesenteric vessels.

Methods: Ten portions of jejunum with associated mesenteric vessels were collected from 12 horses at a local abattoir and divided into two groups. In Group A, each mesenteric artery was ligated with three circumferential ligatures tied with a sliding knot with two overthrows. In Group B, each artery was occluded with application of three haemoclips. The procedures were performed by the same experienced surgeon. Intestinal length, construction time and leaking pressure were measured and compared between groups.

Results: The bowel length of specimens was 3.78 ± 0.43 m (mean \pm SD) in group A and 3.04 ± 0.83 m in group B. The difference was not significantly different ($p = 0.297$). The construction time was 7.03 ± 0.34 min (mean \pm SD) in group A and 2.40 ± 0.43 min in group B. The difference was highly significant ($p < 0.0001$). The leaking pressure was 1000 mmHg (750–1050) (median, IQ range) in group A and 1050 mmHg (800–1050) in group B. The difference was not significantly different ($p = 0.225$).

Conclusions: The haemostatic clips are a valid alternative to ligatures closed with sliding knots in providing vessel occlusion but are faster to apply.

Ethical animal research: No ethical approval required.

Source of funding: None.

Competing interests: None.

References

- Gandini, M., Giusto, G., Comino, F. and Pagliara, E. (2014) Parallel alternating sliding knots are effective for ligation of mesenteric arteries during resection and anastomosis of the equine jejunum. *BMC Vet Res.* **10**, Suppl. 1, S10.

98

INCOMPLETE ILEOCECAL BYPASS FOR ILEAL PATHOLOGY IN HORSES: 21 CASES (2012–2019)

Giusto G., Cerullo A. and Gandini M.

Department of Veterinary Sciences, University of Turin, L.go Paolo Braccini 2-5, Grugliasco (TO), Italy.

Email: gessica.giusto@unito.it

Background: Incomplete ileocecal bypass can be performed in cases in which an ileal dysfunction is suspected but resection of the diseased ileum is not necessary.

Objectives: To describe the clinical findings, the surgical technique, and the outcome of 21 cases of colic with ileal pathologies that underwent an incomplete ileocecal bypass.

Methods: Records of horses diagnosed with pathologies involving the ileum or ileocecal valve that underwent ileocecal anastomosis without resection were retrieved. Clinical (heart rate, duration of symptoms, presence of reflux, age, weight at arrival) and surgical (surgical pathology, duration of surgery, type of anastomosis) data were retrieved and analysed. Data on short-term survival and post-operative complications (colic, post-operative reflux, incisional infection, fever), length of hospital stay, and long-term follow-up were also obtained.

Results: A total of 21 horses met the criteria; 13 horses had ileal impaction (one with muscular hypertrophy), 5 horses had epiploic foramen entrapment, and 3 horses a strangulating lipoma. An incomplete ileocecal bypass was performed with a two-layer hand-sewn side-to-side technique in 19 cases

99

A NEW TRANSILLUMINATION TECHNIQUE FOR VESSEL IDENTIFICATION DURING RESECTION OF THE SMALL COLON

Giusto G. and Gandini M.

Department of Veterinary Sciences, University of Turin, L.go Paolo Braccini 2-5, Grugliasco (TO), Italy.

Email: gessica.giusto@unito.it

Background: Transillumination has been described in human surgery to improve vessel visualisation both using a surgical lamp or an endoscope, but has not been described in horses. Since the equine mesocolon contains a great amount of fat which restricts visualisation of the vessels, this method could be useful during small colon resection. In the method initially proposed, the assistant surgeon should hold the organ between the theatre lamp and the surgeon, while the latter bend to see the distribution of the supplying vessels. Thus the surgeon is in a non-optimal operating position while performing the dissection. Further, if applied to the mesocolon, there is risk to stretch the vessels while holding it up.

Objectives: To describe a new, simple technique of transillumination of the mesocolon to provide an improved surgical view during vessel ligation.

Methods: Six horses underwent resection and anastomosis of the descending colon. The assistant surgeon placed a smartphone with the torch turned on in a sterile glove and placed it on the surgical field with the light upwards. The portion of colon to be resected was then laid over the smartphone such as that the mesocolon was backlit facilitating the dissection, ligation and transection of vessels.

Results: The vessels were clearly and easily identified and dissected, ligated and transected without any non-essential damage to them. No complications related to the use of the new method were reported.

Conclusions: The transillumination technique proposed is simple, inexpensive and, compared to the use of a theatre lamp, allows the operator to stand in an optimal, upright position.

Ethical animal research: No ethical approval required.

Source of funding: None.

Competing interests: None.