Equine Colic University Hospital for Large Animals, Copenhagen

Short-term survival and mortality rates is a poor indicator of surgical skills and quality of care

Christophersen, Mogens Teken; Dupont, Nana Hee; Berg-Sørensen, Kristina; Konnerup, Christel; Pihl, Tina Holberg; Andersen, Pia Haubro

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Background
Equine colic has a high incidence and mortality is high in the surgical cases. Survival is influenced by a lot of factors, of which only few are in our control and many we do not monitor.

Material & Methods

Retrospective study of 1588 acute GI-cases
Factors influencing Survival
Short Term Outcome and comparison with other Hospitals
How should future studies be designed?

Results

In the present study, the single largest risk for mortality was euthanasia, since 59% of all horses recommended for surgery were euthanized, either before surgery or on the operating table, and 159 (10%) of the horses were euthanized without the recommended surgical treatment. Interestingly, there was no relationship between severity of disease and euthanasia.

Discussion

The present study shows that factors lying beyond the control of the clinician may influence the outcome of the hospital service. The continuous improvement of diagnosis, treatment and clinical skills requires a systematic approach, described as clinical governance. The present study indicates that an agreed set of inclusion and exclusion criteria, including a predefined set of reasons for euthanasia, should be applied in retrospective studies if these studies are to be subjected to meta-analyses in the future, when comparing hospitals, techniques or surgeons. Also the analysis and development of risk stratification models – for example, using disease severity scores – could be a productive next step.

Conclusion

In conclusion, this retrospective study of equine colic outcomes, demonstrates that short-term survival rates were biased by the prevalence of euthanasia. The short term survival rates of these Danish horses with colic were similar or lower to those reported from other countries. Apart from variability of veterinary care, attitudes towards euthanasia vary among the countries, which may bias the outcomes. This study indicates that qualitative interview studies on owners’ attitudes towards animal suffering and euthanasia need to be conducted. Our opinion is that survival rates are not valid as sole indicators of quality of care in colic treatment due to selection bias.