

7 Summary

A scientific evaluation of the current available evidence in the literature of veterinary medicine – demonstrated in the area of physiology and pathology of reproductive veterinary medicine

Veterinarians are required to make their decisions based on current academic research. In his decision making process in the daily veterinary practice the veterinarian should be driven by objective and scientifically proven information.

While in human medicine intensive examination of appraising available literature has been conducted in the course of evidence-based medicine (EBM), a systematical work up and appraisal of scientific publication has not been carried out in veterinary medicine yet.

The objective of this project was to search for published literature on reproduction in dogs and evaluate it in regard to evidence. For this purpose a literature research on the internet based databases PubMed and Vet-CD as well as in the bibliographies of obtained articles was conducted. For appraising the literature 40 criteria in the categories material and methodology, study design, statistics, presentation and information content, practical applicability and conclusions were developed. Subsequently the criteria were integrated in a questionnaire. This questionnaire, results of the literature appraisal and further information dealing with evidence-based veterinary medicine will be available online in the near future.

The search of veterinary literature of high evidence was difficult. Out of 287 appraised publications only 90 could be classified as clinical trials (31,4 %). The remaining 197 publications (68,6 %) were case reports or contained information based on personal experience. Metaanalyses could not be found in the literature of reproduction in dogs. In half of the cases (49,8 %) generally accepted and science-based conclusions could not be legitimately drawn by the collected data.

For the field of reproduction in dogs this project discovered evidence deficits. Obviously, there is demand for more clinical trials of a higher quality.

It has to be assumed that also in other areas of veterinary medicine decisions are often based on sources of doubtful evidence. Consequently, veterinary decisions in some cases seem to be related to insecurity compared to human medicine. In the future well conducted trials should be the standard for veterinary research. We should strive intensively to increase well conducted clinical trials in veterinary medicine. A broad basis of high quality primary literature is the foundation of metaanalyses (systematic reviews). Similar to the Cochrane Library in humane medicine, electronically available databases as a source for searching the current best veterinary evidence are required to support an evidence-based veterinary medicine.