Standardization of an immunochemistry staining to detect amyloid material in domestic species

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Objectives
- To review the current knowledge of the amyloidosis in domestic and wild animals.
- To investigate the current knowledge of the amyloidosis as a potentially transmissible disease.
- To standardize an immunochemistry staining to detect amyloid material.
- To evaluate the immunochemistry staining in different domestic and wild species.

Materials and methods

Selection of the species
- Falco peregrinus, Gazella dorcas, Bos primigenius, Capra aegagrus, Ovis aries, Felis silvestris and Canis lupus

Selection of the organs
- Kidney, spleen and liver

Histopathologic techniques
- Hematoxylin/eosin
- Congo Red
- Immunochemistry
  - Non-commercial rabbit polyclonal antibody
  - Mouse monoclonal antibody anti-Amyloid A Component
  - Rabbit polyclonal antibody anti- Amyloid Precursor Protein (APP)

Conclusions
- Pathogenesis and clinical signs of amyloidosis vary in the different animal species, depending on the cause. Congo Red is still the most used stain to diagnose amyloidosis.
- A transmission between species has been proved However, the infection by ingestion of contaminate meat is unlikely.
- The best antibody to detect amyloid material is a non-commercial polyclonal rabbit antibody developed by the University of Zaragoza. The best results are obtained with a 1:2000 titer.
- The immunochemistry technique was only effective in Bos primigenius, Capra aegagrus and Ovis aries.

References
3. Gruys E. Protein folding pathology in domestic animals Journal of Zhejiang University 2004; 5(10): 1226-1238