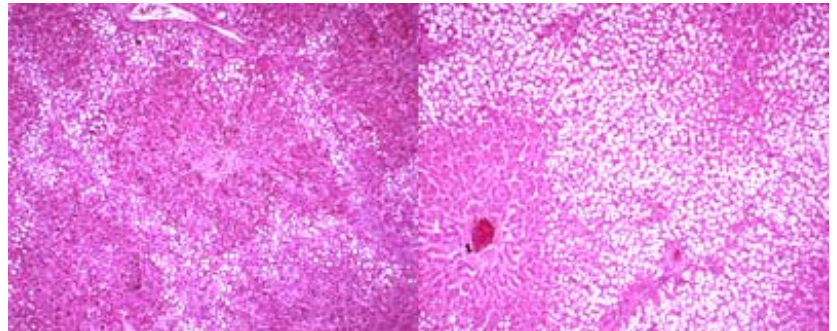


Fatty liver syndrome of stags in rutting season

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With the end of rutting season of fallow and red deer now and then single individuals are observed comprising marked deterioration of body condition and abnormal behaviour in combination with neurological symptoms. Most often these animals will die spontaneously or will be killed because of their severe condition.

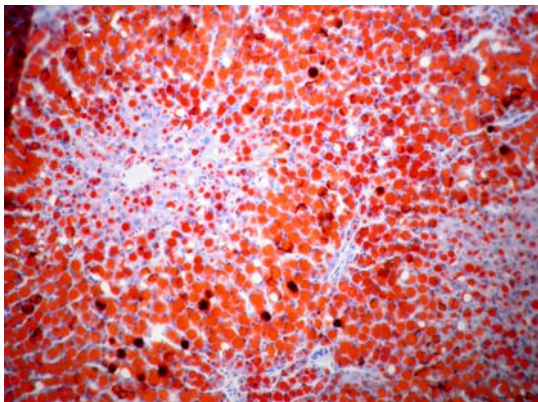
At necropsy and subsequent patho-histological examination extensive fatty degeneration of the liver cells is found. Early stages consist of small to large fat vacuoles in the periportal region of the liver lobules. Depending on the severity of degeneration, the size of vacuoles will increase and later in severe cases



Geringgradige (links) und hochgradige (rechts) fettige Degeneration von Leberzellen; HE, 100fach.

proceed to a panlobular distribution involving almost the entire hepatocytes.

In a study with old adult rut stags of fallow deer a 7- to 20times higher fat content of the liver was measured compared to female animals or stags outside of rutting season (SCHÄFER et al., 1990). This so called fatty liver syndrome or fat mobilisation syndrome has its analogy to the fatty liver syndrome in dairy cows. Due to the post partum onset of lactation cows can develop a deficit in their energy requirements, which the metabolism tries to meet by extensive lipolysis resulting consequently in a systemic ketosis.



Severe fatty degeneration of hepatocytes; Sudan-Red, x100.

Investigations of the IZW regarding the occurrence of fatty liver syndrome in male Cervinae within rutting season a sporadic incidence of this disease was noted in free-ranging deer, whereas in captive deer the syndrome occurred in 14,5 % of the examined animals (WISSER und STRAUSS, 1994).

In cooperation with the faculty of forestry of the university of Dresden further investigations in regard to the fatty liver syndrome in free-ranging deer are performed to elucidate the morphological changes being responsible for the neurological symptoms.

References:

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