



CMHD Pathology Report



CMHD Pathology Core

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ReportID: Report Date: not completed
Pathologist: Dr. H. Adissu

Mouse Genetics Project

Wellcome Trust Sanger
Institute
Wellcome Trust Genome
Campus
Hinxton, Cambridge
CB10 1SA
UK

CMHD LabID: N13-243

Relevant History:

increased heart weight
decreased erythrocyte cell number
decreased hemoglobin content
decreased circulating alkaline phosphatase level
decreased circulating creatine kinase level
decreased circulating aspartate transaminase level
increased lean body mass
preweaning lethality
embryonic lethality

AnimalID: M00334237 (Male)

Histopathology Findings:

liver (MA:0000358)

Histopath Description:

severe lipidosis

Morphological Diagnosis:

Distribution: diffuse; **Severity:** severe; **MPATH Diagnosis:** steatosis MPATH:622

Definitive Diagnosis:

Hepatic lipidosis

lymph node (MA:0000139)

Histopath Description:

The mesenteric lymph node is enlarged (greater than three-fold). There are multiple follicles with large germinal centers. The sinuses contain large numbers of mature lymphocytes.

Morphological Diagnosis:

Duration: Sub-acute; **Distribution:** Diffuse; **Severity:** moderate; **MPATH Diagnosis:** hyperplasia MPATH:134

Definitive Diagnosis:

Lymphoid hyperplasia.

Histopathology Comments:

The changes in the mesenteric lymph node are suggestive of draining of a regional inflammatory process. However, such a process was not observed in the tissues examined.

kidney (MA:0000368)

Histopath Description:

There are multifocal small perivascular aggregates of mononuclear inflammatory cells at the corticomedullary junction.

Morphological Diagnosis:

Duration: Chronic-active; **Distribution:** Focal; **Severity:** mild; **MPATH Diagnosis:** inflammation MPATH:212

Definitive Diagnosis:

Focal perivascular inflammatory aggregate.

Histopathology Comments:

This is a common incidental and insignificant lesion in mice

salivary gland (MA:0000346)**Histopath Description:**

There are multifocal perivascular mononuclear inflammatory cell aggregates.

Morphological Diagnosis:

Distribution: multifocal; **Severity:** mild;

Definitive Diagnosis:

Interstitial inflammatory aggregates

knee (MA:0000046)**Histopath Description:**

The overall subgross anatomical organization of the femur, tibia, and the knee joint are within normal limits. Histologically, there is focal fissure and fraying (fibrillation) the tibial articular cartilage.

Morphological Diagnosis:

Duration: chronic; **Distribution:** focally extensive; **Severity:** mild; **MPATH Diagnosis:** degenerative change MPATH:14

Definitive Diagnosis:

Mild fibrillation and fissure of the superficial zone of femoral articular cartilage - consistent with low grade degenerative joint disease (DJD)

Histopathology Comments:

The histological changes within the superficial articular cartilage are indicative of early and very mild DJD. The lesions are likely age-associated. DJD occurs in all inbred strains of mice as part of the aging process.

AnimalID: M00334238 (Male)**Histopathology Findings:****kidney (MA:0000368)****Histopath Description:**

There are multifocal small perivascular aggregates of mononuclear inflammatory cells at the corticomedullary junction.

Morphological Diagnosis:

Duration: Chronic-active; **Distribution:** Focal; **Severity:** mild; **MPATH Diagnosis:** inflammation MPATH:212

Definitive Diagnosis:

Focal perivascular inflammatory aggregate.

Histopathology Comments:

This is a common incidental and insignificant lesion in mice

salivary gland (MA:0000346)**Histopath Description:**

There are multifocal perivascular mononuclear inflammatory cell aggregates.

Morphological Diagnosis:

Distribution: multifocal; **Severity:** mild;

Definitive Diagnosis:

Interstitial inflammatory aggregates

AnimalID: M00338508 (Female)**Histopathology Findings:****lymph node (MA:0000139)****Histopath Description:**

The mesenteric lymph node is enlarged (greater than three-fold). There are multiple follicles with

large germinal centers. The sinuses contain large numbers of mature lymphocytes.

Morphological Diagnosis:

Duration: Sub-acute; **Distribution:** Diffuse; **Severity:** moderate; **MPATH Diagnosis:** hyperplasia MPATH:134

Definitive Diagnosis:

Lymphoid hyperplasia.

Histopathology Comments:

The changes in the mesenteric lymph node are suggestive of draining of a regional inflammatory process. However, such a process was not observed in the tissues examined.

heart (MA:0000072)

Histopath Description:

The right ventricular free wall is thickened. The RV to LV ration is 1:2 compared to wt controls (1:3 to 1:3.5)

Morphological Diagnosis:

Distribution: diffuse; **Severity:** moderate;

Definitive Diagnosis:

Left ventricular hypertrophy

Histopathology Comments:

There are no extracardiac lesions observed to suggest secondary hypertrophy

AnimalID: M00335649 (Female)

Histopathology Findings:

liver (MA:0000358)

Histopath Description:

severe lipidosis

Morphological Diagnosis:

Distribution: diffuse; **Severity:** severe; **MPATH Diagnosis:** steatosis MPATH:622

Definitive Diagnosis:

Hepatic lipidosis

stomach (MA:0000353)

Histopath Description:

moderate neutrophilic gastritis

Morphological Diagnosis:

Distribution: multifocal to coalescing; **Severity:** moderate;

Definitive Diagnosis:

Gastritis, neutrophilic

Report Summary and Recommendation:

Increased right ventricular thickness in one mouse may explain the increased heart weight in this line. No lesions were found to explain the other clinical phenotypes. Most lesions in this line are attributable to diet or strain background.