



CMHD Pathology Report



CMHD Pathology Core

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Mouse Genetics Project

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CMHD LabID: N12-1514

Relevant History:

Phenotype:

decreased CD4-positive
decreased CD8-positive T cell number
increased susceptibility to bacterial infection
Homozygous fertile but increased incidence of pre-wean death. Hemizygous X homozygous matings have 48% (30/62) pre-wean death and hemizygous X heterozygous have 24% (29/119) pre-wean death.

AnimalID: M00351111

Tissue Preservation and Staining:

Lymph node not available in section

Histopathology Findings:

brown fat (MA:0000057)

Histopath Description:

There is focally extensive hyperplasia of brown fat infiltrated with low numbers of inflammatory cells (lymphocytes, macrophages and rare neutrophils)

Morphological Diagnosis:

Duration: Chronic-active; **Distribution:** Focal; **Severity:** mild; **MPATH Diagnosis:** steatitis
MPATH:636

Definitive Diagnosis:

Steatitis with hyperplasia

liver (MA:0000358)

Histopath Description:

Diffuse lipidosis

Morphological Diagnosis:

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

Definitive Diagnosis:

Diffuse hepatic steatosis

AnimalID: M00351110

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:** lymphoid

hyperplasia MPATH:147

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.

liver (MA:0000358)

Histopath Description:

Diffuse lipidosis

Morphological Diagnosis:

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

Definitive Diagnosis:

Diffuse hepatic steatosis

testis (MA:0000411)

Histopath Description:

There is a focally extensive vacuolar degeneration and atrophy of the seminiferous tubule

Morphological Diagnosis:

Distribution: focally extensive; **Severity:** mild;

Definitive Diagnosis:

Testicular degeneration and atrophy

AnimalID: M00310508

Histopathology Findings:

liver (MA:0000358)

Histopath Description:

Moderate lipidosis

Morphological Diagnosis:

Distribution: multifocal; **Severity:** moderate; **MPATH Diagnosis:** steatosis MPATH:622

Definitive Diagnosis:

Diffuse hepatic steatosis

adrenal gland (MA:0000116)

Histopath Description:

There is a small, well-circumscribed mass in the cortex. It is encapsulated by a thin layer of pale eosinophilic material and fusiform cells (connective tissue with fibroblasts) and is made of nests of polygonal cells interspersed by a very thin fibrovascular membrane. The architecture is reminiscent of the zona glomerulosa and zona fasciculate of the mature adrenal gland.

Morphological Diagnosis:

Distribution: focal;

Definitive Diagnosis:

accessory adrenal cortical tissue

thymus (MA:0000142)

Histopath Description:

There is a 150 um diameter epithelial cyst.

Morphological Diagnosis:

Distribution: focal; **MPATH Diagnosis:** cyst MPATH:62

Definitive Diagnosis:

Epithelial cyst

AnimalID: M00310507**Tissue Preservation and Staining:**

Lymph node not available in section

Histopathology Findings:**liver (MA:0000358)****Histopath Description:**

Diffuse lipidosis

Morphological Diagnosis:

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

Definitive Diagnosis:

Diffuse hepatic steatosis

retina (MA:0000276)**Histopath Description:**

There are multifocal indulation of the retinal layers

Morphological Diagnosis:

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

Definitive Diagnosis:

Retinal folding (dysplasia)

stomach (MA:0000353)**Histopath Description:**

mild neutrophilic gastritis

Morphological Diagnosis:

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

Definitive Diagnosis:

Neutrophilic gastritis

Report Summary and Recommendation:

Incidental lesions attributable to diet or strain background are observed in this line. There are no lesions to explain preweaning/embryonic lethality in this line. Analysis of hemolymphatic tissues did not reveal morphological correlate to decreased CD4-positive and CD8-positive T cell numbers and to the increased susceptibility to bacterial infection. The lymph node was not available for examination in two mice (M00351111 and M00310507).