CMHD Pathology Report

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Mouse Genetics Project
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ReportID: Report Date: June 18, 2013
Pathologist: Dr. H. Adissu

CMHD LabID: N13-247

Relevant History:
Phenotype:
decreased body weight
decreased lean body mass
decreased body weight
hypoalbuminemia
decreased circulating total protein level
decreased circulating insulin level
preweaning lethality
embryonic lethality

AnimalID: M00366775 (Male)

Histopathology Findings:

liver (MA:0000358)

Histopath Description:
moderate lipidosis

Morphological Diagnosis:
Distribution: multifocal; **Severity:** mild;

Definitive Diagnosis:
hepatic lipidosis

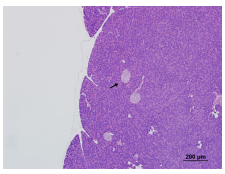
pancreatic islet (MA:0000127)

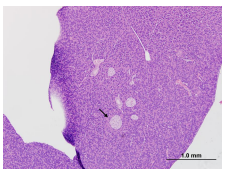
Histopath Description:
Normal

Morphological Diagnosis:
Severity: no lesions;

Definitive Diagnosis:
Normal

Histopathology Comments:
images included


Pancreatic islet, normal, 10x, HE


Pancreatic islet, Wt control, normal, 10x, HE

lymph node (MA:0000139)

Histopath Description:
One of the superficial lymph nodes is enlarged more than two-fold. Its architecture is altered by large numbers of monomorphic lymphocytes that fill and distend all the sinuses and elevate the

capsule. The neoplastic cells have generally a scant amount of eosinophilic cytoplasm, medium sized round central nucleus with granular chromatin, and single variably distinct amphophilic nucleoli. Mitotic figures are (less than 1/HPF).

Definitive Diagnosis:
Lymphoma

Histopathology Comments:
The lesion is suggestive of an early lymphoma of the mesenteric lymph node.

brain (MA:0000168)

Histopath Description:
There is mild dilation of the lateral ventricles

Morphological Diagnosis:
Distribution: bilateral; **Severity:** mild;

Definitive Diagnosis:
Dilation of the brain ventricles

Histopathology Comments:
Mild dilation of the lateral ventricles is a background condition in mice of C57BL/6N background (Brayton et al., 2004).

AnimalID: M00371886 (Male)

Tissue Preservation and Staining:
Liver not present for analysis

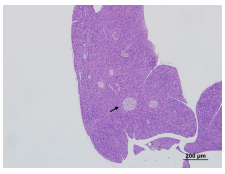
Histopathology Findings:

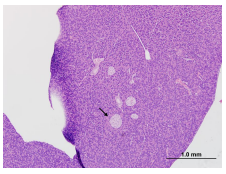
pancreatic islet (MA:0000127)

Histopath Description:
normal

Morphological Diagnosis:
Severity: no lesions;

Definitive Diagnosis:
Normal


Pancreatic islet, normal, 10x, HE


Pancreatic islet, Wt control, normal, 10x, HE

brain (MA:0000168)

Histopath Description:
There is mild dilation of the lateral ventricles

Morphological Diagnosis:
Distribution: bilateral; **Severity:** mild;

Definitive Diagnosis:
Dilation of the brain ventricles

Histopathology Comments:
Mild dilation of the lateral ventricles is a background condition in mice of C57BL/6N background (Brayton et al., 2004).

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.

AnimalID: M00366777 (Female)

Histopathology Findings:

liver (MA:0000358)

Histopath Description:
moderate lipidosis

Morphological Diagnosis:
Distribution: multifocal; **Severity:** mild;

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.

brain (MA:0000168)

Histopath Description:
There is mild dilation of the lateral ventricles

Morphological Diagnosis:
Distribution: bilateral; **Severity:** mild;

Definitive Diagnosis:
Dilation of the brain ventricles

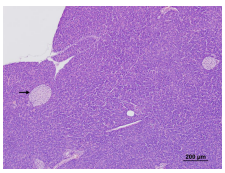
Histopathology Comments:
Mild dilation of the lateral ventricles is a background condition in mice of C57BL/6N background (Brayton et al., 2004).

pancreatic islet (MA:0000127)

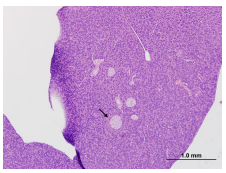
Histopath Description:
normal

Morphological Diagnosis:
Severity: no lesions;

Definitive Diagnosis:
Normal



Pancreatic islet, normal, 10x, HE



Pancreatic islet, Wt control, normal, 10x, HE

AnimalID: M00366776 (Female)

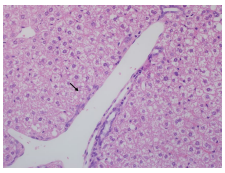
Histopathology Findings:

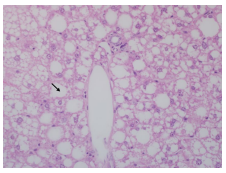
liver (MA:0000358)

Histopath Description:
very mininal lipidosis

Morphological Diagnosis:
Distribution: multifocal; **Severity:** mild;

Definitive Diagnosis:
hepatic lipidosis, minimal


Liver, WT control. Severe lipidosis, 40x, HE


Liver, minimal lipidosis, 40x, HE

brain (MA:0000168)

Histopath Description:
There is mild dilation of the lateral ventricles

Morphological Diagnosis:
Distribution: bilateral; **Severity:** mild;

Definitive Diagnosis:
Dilation of the brain ventricles

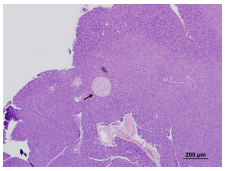
Histopathology Comments:
Mild dilation of the lateral ventricles is a background condition in mice of C57BL/6N background (Brayton et al., 2004).

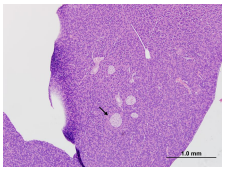
pancreatic islet (MA:0000127)

Histopath Description:
normal

Morphological Diagnosis:
Severity: no lesions;

Definitive Diagnosis:
Normal


Pancreatic islet, normal, 10x, HE


Pancreatic islet, Wt control, normal, 10x, HE

Report Summary and Recommendation:
There is minimal lipidosis in one of the female mice consistent with decreased body weight in this line. The liver is not available for the other female mice. The absence of lipidosis in the female mouse may be explained by the decreased circulating total protein level in female mice in this line as hepatic lipoprotein synthesis depends on protein availability. We did not see any lesion to explain low protein levels. The kidneys are histologically normal and there is no evidence of glomerulopathy or protein loss in the tubules. No abnormality is noted in the pancreatic islets to explain low insulin level. We also did not observe histological correlate to the rest of the clinical phenotypes. Analysis of embryos and preweaning animals may help determine cause of embryonic and preweaning mortality.

Line summary: Minimal lipidosis