

CMHD Pathology Core

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CMHD Pathology Report

Principle Investigator: Dr. Colin McKerlie ICSIG

Institute: Sick Kids

Address:

ReportID: Report Date: November 23,

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Pathologist: H. Adissu



Mouse Genetics Project

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Mouse Portal Europhenome

CMHD LabID: N11-384

AnimalID: M00208695 Tbd52I2 hom

Histopathology Findings:

thymus (MA:0000142)

Histopath Description:

There is a 150 um diameter epithelial inclusion cyst within the thymus

Morphological Diagnosis:

Distribution: Focal; Severity: mild; MPATH Diagnosis: developmental and structural

abnormality MPATH:55

Definitive Diagnosis:

Focal epithelial inclusion cyst

lymph node (MA:0000139)

Histopath Description:

The mesenteric lymph node is enlarged (nearly 3x normal). There is a diffuse and marked increase in the paracortical and medullary areas and cellularity; these cells are organized as prominent chords, and they are larger and blast-like. Lymphoid follicles are increased in size and some have germinal centers.

Morphological Diagnosis:

Distribution: Diffuse; Severity: mild; MPATH Diagnosis: hyperplasia MPATH:134

Definitive Diagnosis:

Lymphoid hyperplasia

liver (MA:0000358)

Histopath Description:

There is diffuse hepatic lipidosis.

Morphological Diagnosis:

Distribution: Diffuse; Severity: moderate; MPATH Diagnosis: lipid deposition MPATH:42

Definitive Diagnosis:

Hepatic lipidosis

Histopathology Comments:

Hepatocellular vacuolar change of variable degree suggestive of lipidosis is present in all mice from WTSI, consistent with high lipid diet. See a representative image of diffuse hepatocellular lipidosis (Snip1 WT M00383263).

AnimalID: M00208230 Tbd52I2 hom

Histopathology Findings:

liver (MA:0000358)

Histopath Description:

The overall hepatic lobular architecture is normal. Nearly 20-30% of hepatocytes contain large (8-12 um in diameter) intracytoplasmic clear vacuoles (macrovesicular lipid).

Morphological Diagnosis:

Distribution: Multifocal; Severity: mild; MPATH Diagnosis: lipid deposition MPATH:42

Definitive Diagnosis:

Hepatic lipidosis

Histopathology Comments:

Hepatocellular vacuolar change of variable degree suggestive of lipidosis is present in all mice from WTSI, consistent with high lipid diet.

eye (MA:0000261)

Histopath Description:

One of the eyes is markedly hypoplastic (micropathalmic); it is composed of a cavity lined by a thick layer of pigmented structure (undeveloped choroid) surrounded by a thick collagenous capsule.

Morphological Diagnosis:

Distribution: Unilateral; **Severity:** extreme; **MPATH Diagnosis:** developmental and structural abnormality MPATH:55

Definitive Diagnosis:

Microphtalmia, unilateral

Histopathology Comments:

Microphtalmiaand other ocular defects are noted as incidental lesion in C57BL6/B6 mice.

lymph node (MA:0000139)

Histopath Description:

The mesenteric lymph node is enlarged (nearly 3x normal). There is a diffuse and marked increase in the paracortical and medullary areas and cellularity; these cells are organized as prominent chords, and they are larger and blast-like. Lymphoid follicles are increased in size and some have germinal centers.

Morphological Diagnosis:

Distribution: Diffuse; Severity: mild; MPATH Diagnosis: hyperplasia MPATH:134

Definitive Diagnosis:

Lymphoid hyperplasia

AnimalID: M00201843 Tbd52I2 hom

Histopathology Findings:

eye (MA:0000261)

Histopath Description:

One of the eyes is markedly hypoplastic (micropathalmic); it is composed of a cavity lined by a thick layer of pigmented structure (undeveloped choroid) surrounded by a thick collagenous capsule.

Morphological Diagnosis:

Distribution: Unilateral; **Severity:** extreme; **MPATH Diagnosis:** developmental and structural abnormality MPATH:55

Definitive Diagnosis:

Microphtalmia, unilateral

Histopathology Comments:

Microphtalmiaand other ocular defects are noted as incidental lesion in C57BL6/B6 mice.

lymph node (MA:0000139)

Histopath Description:

The architecture of two superficial cervical lymph nodes is altered by the presence of large numbers of monomorphic lymphocytes filling and distending all the sinuses and elevating 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.

Morphological Diagnosis:

Distribution: Diffuse; **MPATH Diagnosis:** lymphoma [obsolete use MPATH:516 or 535] MPATH:343

Definitive Diagnosis:

Lymphoma

liver (MA:0000358)

Histopath Description:

The overall hepatic lobular architecture is normal. Nearly 70% of hepatocytes contain large (8-12 um in diameter) intracytoplasmic clear vacuoles (macrovesicular lipid).

Morphological Diagnosis:

Distribution: Multifocal; Severity: moderate; MPATH Diagnosis: lipid deposition MPATH:42

Definitive Diagnosis:

Hepatic lipidosis

Histopathology Comments:

Hepatocellular vacuolar change of variable degree suggestive of lipidosis is present in all mice from WTSI, consistent with high lipid diet.

AnimalID: M00201942 Tbd52I2 hom

Histopathology Findings:

adrenal gland (MA:0000116)

Histopath Description:

In one of the adrenal glands, there is a focally extensive stream of subcapsular spindle cell proliferation that segmentally desplaces the superfical cortical layer.

Morphological Diagnosis:

Distribution: Focal; Severity: mild; MPATH Diagnosis: hyperplasia MPATH:134

Definitive Diagnosis:

Spindle cell hyperplasia.

Histopathology Comments:

Proliferation of subcortical spindle cells, with displacement of the cortex, is common in mice of all ages. The function of these cells is not known.

salivary gland (MA:0000346)

Histopath Description:

There are multiple apoptotic bodies within the glanular epithelium of the sibmandibular salivary gland.

Morphological Diagnosis:

Distribution: Multifocal; Severity: mild; MPATH Diagnosis: apoptosis MPATH:3

Definitive Diagnosis:

Glandular epithelial apoptosis/necrosis

Histopathology Comments:

The lesion is uncommon and the cause is not evident.

Report Summary and Recommendation:

Liver: Lipid depletion - MPATH: 52