



CMHD Pathology Report



CMHD Pathology Core

Toronto Centre for
Phenogenomics
25 Orde St. 3rd fl.
Toronto, Ont. M5T 3H7
Tel.(416) 586-8375
Fax (416) 586-5993

contact: Dr. Susan
Newbigging
email:
newbigging@lunenfeld.ca

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Pathologist: H. Adissu

Mouse Genetics Project

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

CMHD LabID: N11-193

Relevant History:

Decreased bone trabecular number

AnimalID: M00208252 Eif4e3 hom

Tissue Preservation and Staining:

There is artifactual separation of the dermis and hypodermis. Thyroid gland is not present in section. Tissues not present in submission: Calvarium, ears, tongue, Harderian gland, zymbal gland, nasal sinuses, teeth, gall bladder.

Histopathology Findings:

liver (MA:0000358)

Histopath Description:

The overall hepatic lobular architecture is normal. Diffusely, hepatocytes contain intracytoplasmic clear vacuoles (lipid). The lipid vacuoles within the midzonal and periportal regions are small (2-3 um in diameter) and surround a central nucleus (interpreted as microvesicular lipid). The lipid vacuoles within the portal areas are large (8-12 um in diameter) and displace the nucleus to the margin (macrovesicular lipid). There are rare perivascular mononuclear inflammatory cells.

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.

stomach (MA:0000353)

Histopath Description:

There are rare eosinophils and neutrophils within the deep lamina propria

Morphological Diagnosis:

Duration: Sub-acute; **Distribution:** Multifocal; **Severity:** mild; **MPATH Diagnosis:** inflammation MPATH:212

Definitive Diagnosis:

Gastritis, suppurative

Histopathology Comments:

This lesion is most commonly associated with Helicobacter infection. Further investigation is suggested using histochemistry (Silver stain) or colony fecal PCR.

Organ/Tissue Analyzed:

to be appended

AnimalID: M00208259 Eif4e3 hom

Tissue Preservation and Staining:

Tissues not present in submission: Calvarium, ears, tongue, Harderian gland, zymbal gland, nasal sinuses, teeth, gall bladder.

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

The overall hepatic lobular architecture is normal. Approximately 50% of hepatocytes within the midzonal region 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 lipidosi.

Histopathology Comments:

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

pancreas (MA:0000120)**Histopath Description:**

There is a focal aggregate of mononuclear inflammatory cells within the interlobular interstitium.

Morphological Diagnosis:

Distribution: Focal; **Severity:** mild; **MPATH Diagnosis:** inflammation MPATH:212

Definitive Diagnosis:

focal mononuclear inflammatory aggregate

Organ/Tissue Analyzed:

to be appended

AnimalID: M00220446 Eif4e3 hom**Tissue Preservation and Staining:**

There is artifactual separation of dermis and subcutis. Tissues not present in submission: Calvarium, ears, tongue, Harderian gland, zymbal gland, nasal sinuses, teeth, gall bladder.

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

The overall hepatic lobular architecture is normal. Approximately 50% of hepatocytes within the midzonal region 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 lipidosi.

Histopathology Comments:

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

Organ/Tissue Analyzed:

to be appended

AnimalID: M00220452 Eif4e3 hom**Tissue Preservation and Staining:**

There is artifactual separation of the dermis and hypodermis. Tissues not present in submission: Calvarium, ears, tongue, Harderian gland, zymbal gland, nasal sinuses, teeth, gall bladder.

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.

pancreas (MA:0000120)**Histopath Description:**

There are rare single necrotic exocrine epithelial cells. Few mononuclear inflammatory cells are present in association with these necrotic cells.

Morphological Diagnosis:

Duration: Sub-acute; **Distribution:** Multifocal; **Severity:** mild; **MPATH Diagnosis:** necrosis MPATH:4

Definitive Diagnosis:

Single exocrine cell necrosis.

adrenal gland (MA:0000116)**Histopath Description:**

There is a 100 um diameter extracapsular adrenal tissue adrenal

Morphological Diagnosis:

Distribution: Focal; **Severity:** mild; **MPATH Diagnosis:** choristoma MPATH:477

Definitive Diagnosis:

Extracapsular adrenal tissue

adrenal gland (MA:0000116)**Histopath Description:**

Adrenal cortical cells immediately surrounding the medulla are vacuolated and contain fine granular golden brown cytoplasmic pigment. Rare mononuclear cells are present within this zone.

Morphological Diagnosis:

Distribution: Diffuse; **Severity:** no lesions; **MPATH Diagnosis:** degenerative change MPATH:14

Definitive Diagnosis:

Vacuolar degeneration of X-zone of the adrenal gland with cytoplasmic ceroid accumulation (X-zone involution).

Histopathology Comments:

The X zone of the adrenal cortex disappears when males reach sexual maturity and females undergo their first pregnancy. The zone also disappears in virgin females, albeit gradually (Percy and Barthold, 2007).

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

The overall hepatic lobular architecture is normal. Approximately 50% of hepatocytes within the midzonal region 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 lipidoses.

Histopathology Comments:

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

superficial cervical lymph node (MA:0002886)**Histopath Description:**

The medullary and paracortical sinuses are distended by histiocytes

Morphological Diagnosis:

Distribution: Multifocal to coalescing; **Severity:** moderate; **MPATH Diagnosis:** inflammation MPATH:212

Definitive Diagnosis:

Sinus histiocytosis

Histopathology Comments:

This histological feature suggests regional draining of a chronic inflammation

stomach (MA:0000353)

Histopath Description:

There are moderate numbers of neutrophils within the deep lamina propria

Morphological Diagnosis:

Duration: Sub-acute; **Distribution:** Multifocal; **Severity:** mild; **MPATH Diagnosis:** inflammation MPATH:212

Definitive Diagnosis:

Gastritis, suppurative

Histopathology Comments:

This lesion is most commonly associated with Helicobacter infection. Further investigation is suggested using histochemistry (Silver stain) or colony fecal PCR.

Organ/Tissue Analyzed:

to be appended

Summary:

Lesions seen in this line are considered incidental.

Report Summary and Recommendation:

Incidental lesions attributable to diet or strain background are observed in this line.