



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

Principle Investigator: Dr. Colin McKerlie ICSIG

Institute: Sick Kids
Address:

ReportID: Report Date: November 23,
2011
Pathologist: H. Adissu

Mouse Genetics Project

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

email:
MGPenquiries@sanger.ac.uk
[Mouse Portal](#)
[Europhenome](#)

CMHD LabID: N10-1391

AnimalID: M00279286 4933425L06RIK Homo

Tissue Preservation and Staining:

The following tissues were not submitted: Calvarium, ears, tongue, Harderian gland, zymbal gland, nasal sinuses, teeth, gall bladder.

Histopathology Findings:

lung (MA:0000415)

Histopath Description:

There is a focal perivascular mononuclear inflammatory cell aggregate within the lung

Morphological Diagnosis:

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

Definitive Diagnosis:

Perivascular inflammatory aggregates

Histopathology Comments:

This lesion is suggestive of antigenic stimulation of hematogenous origin. It is a common and insignificant incidental finding.

liver (MA:0000358)

Histopath Description:

lipid accumulation similar to M0018944 Adam 17 Het

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.

lymph node: mesenteric lymph node (MA:0000139)

Histopath Description:

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

Morphological Diagnosis:

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

Definitive Diagnosis:

Lymphoid hyperplasia and sinus histiocytosis

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.

Organ/Tissue Analyzed:

There were no significant findings in the following tissues: Brain, eyes, salivary glands, trachea, heart, thymus, thyroid gland, parathyroid gland, spleen, exocrine and endocrine pancreas, esophagus, stomach, intestines, adrenal gland, reproductive organs, urinary organs and tract, spinal cord, bones, bone marrow, skeletal muscles, brown fat, and skin.

AnimalID: M00251681 4933425L06RIK Homo**Tissue Preservation and Staining:**

The following tissues were not submitted: Calvarium, ears, tongue, Harderian gland, zymbal gland, nasal sinuses, teeth, gall bladder.

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

There are low numbers of neutrophils within the deep lamina propria and submucosa.

Morphological Diagnosis:

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

Definitive Diagnosis:

Gastritis, suppurative

Histopathology Comments:

The lesion is likely caused by Helicobacter infection

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

Lipidosis comparable to M00251692 4933425L06RIK Homo

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.

kidney (MA:0000368)**Histopath Description:**

There is a focal aggregate of lymphocytes and histiocytes within the medullary interstitium.

Morphological Diagnosis:

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

Definitive Diagnosis:

Focal mononuclear inflammaory cell aggregate

Histopathology Comments:

This is a common incidental lesion of minimal significance.

testis (MA:0000411)**Histopath Description:**

Within the seminiferous tubule are present occasional large (100 um diamater) multinucleated cells. Nuclei are mostly located in the center surrounded by granular eosinophilic cytoplasm.

Morphological Diagnosis:

Distribution: Multifocal; **Severity:** no lesions;

Definitive Diagnosis:

Multinucleated cells within the seminiferous tubule

Histopathology Comments:

Multinucleated germ cells are often seen in the seminiferous tubules of fertile males from a number of species of rodents (Bryan, 1977). They can be present as spontaneous age associated lesions (Gordon et al., 1996), or are caused by various insults including ligation of the efferent duct (Singh and Abe, 1987), chemicals (Chinoya et al., 2005) and radiation toxicity associated with tritium (Bhatia, 1985). Increased numbers have been documented in sterile Pink-Eyed Mutant Mouse (Bryan 1977). Ultrastructural studies suggest that the giant cells are formed as a result of the fusion of spermatids due to alterations in the intercellular bridges (Singh and Abe, 1987) or from degenerate

Organ/Tissue Analyzed:

There were no significant findings in the following tissues: Brain, trachea, heart, thymus, thyroid gland, parathyroid gland, spleen, exocrine and endocrine pancreas, esophagus, intestines, adrenal gland, reproductive organs, urinary organs and tract, spinal cord, bones, bone marrow, skeletal muscles, brown fat, and skin.

AnimalID: M00251692 4933425L06RIK Homo**Tissue Preservation and Staining:**

The following tissues were not submitted: 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).

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 WT5I, consistent with high lipid diet.

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

There are large numbers of neutrophils within the deep lamina propria, muscularis mucosa and submucosa. The neutrophils form a thick band within the superficial submucosa. Rare necrotic gastric epithelial cells are present.

Morphological Diagnosis:

Duration: Chronic-active; **Distribution:** Multifocal; **Severity:** moderate; **MPATH Diagnosis:** inflammation MPATH:212

Definitive Diagnosis:

Gastritis, suppurative

Histopathology Comments:

The lesion is likely caused by Helicobacter infection

Organ/Tissue Analyzed:

There were no significant findings in the following tissues: Brain, eyes, salivary glands, trachea, heart, thymus, thyroid gland, parathyroid gland, spleen, exocrine and endocrine pancreas, esophagus, intestines, adrenal gland, reproductive organs, urinary organs and tract, spinal cord, bones, bone marrow, skeletal muscles, brown fat, and skin.

Summary:

Various incidental lesions were found. These lesions were also variably documented in the wild type control mice.

Report Summary and Recommendation:

Various incidental lesions attributable to diet or background strain were found. These lesions were also variably documented in the wild type control mice.