



CMHD Pathology Report



CMHD Pathology Core

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ReportID: Report Date: July 12, 2013
Pathologist: Dr. H. Adissu

Mouse Genetics Project

Wellcome Trust Sanger
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Hinxton, Cambridge
CB10 1SA
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CMHD LabID: N13-473

Relevant History:

Phenotypes:
abnormal snout morphology
short snout
upturned snout
decreased body weight
decreased body weight
preweaning lethality
embryonic lethality
abnormal fertility/fecundity
chromosomal instability

AnimalID: M00505888 (Male)

Histopathology Findings:

liver (MA:0000358)

Histopath Description:

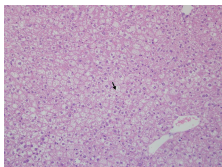
diffuse lipidosis

Morphological Diagnosis:

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

Definitive Diagnosis:

Hepatic lipidosis



Liver, diffuse,
lipidosis, 20x, HE

Organ/Tissue Analyzed:

Histopathology examination included the following organs and tissues: brain, trigeminal ganglion, eyes, salivary glands, trachea, lungs, heart, thymus, thyroid gland, parathyroid gland, exocrine and endocrine pancreas, oesophagus, stomach, small intestine, large intestine, liver, gall bladder, spleen, kidneys, adrenal gland, lymph nodes, spinal cord, bone marrow, sternum, femur and tibia with associated skeletal muscles, brown fat, pinna, skin, testis, epididymis, seminal vesicle, and prostate.

AnimalID: M00505862 (Male)

Histopathology Findings:

liver (MA:0000358)

Histopath Description:

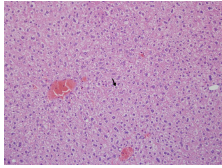
No hepatocellular lipidosis

Definitive Diagnosis:

Absence of hepatic lipidosis

Histopathology Comments:

Hepatic lipidosis is absent despite high fat diet



Liver, absence of lipidosis, 20x, HE

stomach (MA:0000353)

Histopath Description:

mild neutrophilic gastritis; there is also mild epithelial proteinosis

Morphological Diagnosis:

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

Definitive Diagnosis:

Mild neutrophilic gastritis with epithelial proteinosis

pancreatic islet (MA:0000127)

Histopath Description:

There are fewer pancreatic islets in this mouse compared to WT controls.

Morphological Diagnosis:

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

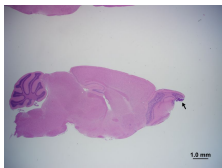
Definitive Diagnosis:

Pancreatic islet hypoplasia (number and size)

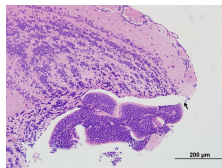
brain (MA:0000168)

Histopath Description:

There is 500x200 um hypercellular mass attached to the mid aspect of the olfactory lobe. The mass is attached to the olfactory lobe by a thin stalk. The mass is composed of multiple interconnected lobules of round cohesive cells with insistent borders. The outer border of the mass has a thin acellular zone (reminiscent of molecular layer of the cerebellum).



Olfactory lobe, 1.25x, HE



Olfactory lobe, 20x, HE

Organ/Tissue Analyzed:

Histopathology examination included the following organs and tissues: brain, trigeminal ganglion, eyes, salivary glands, trachea, lungs, heart, thymus, thyroid gland, parathyroid gland, exocrine and endocrine pancreas, oesophagus, stomach, small intestine, large intestine, liver, gall bladder, spleen, kidneys, adrenal gland, lymph nodes, spinal cord, bone marrow, sternum, femur and tibia with associated skeletal muscles, brown fat, pinna, skin, testis, epididymis, seminal vesicle, and prostate.

AnimalID: M00505866 (Female)

Histopathology Findings:

liver (MA:0000358)

Histopath Description:

Very minimal hepatocellular lipidosis

Morphological Diagnosis:

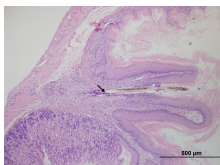
Severity: mild;

Definitive Diagnosis:

Minimal hepatic lipidosis

Histopathology Comments:

Hepatic lipidosis is very minimal despite high fat diet



Stomach, focal pyogranulomatous gastritis with intralesional hair fragment, 10x, HE

stomach (MA:0000353)

Histopath Description:

Focal pyogranulomatous gastritis centered on a hair fragment; there is also mild epithelial proteinosis

Morphological Diagnosis:

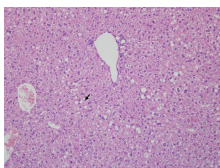
Distribution: multifocal; **Severity:** mild;

Definitive Diagnosis:

Focal pyogranulomatous gastritis with intralesional hair fragment; epithelial proteinosis

Histopathology Comments:

Traumatic gastritis associated with hair fragments is occasionally seen.



Liver, minimal lipidosis, 20x, HE

eye (MA:0000261)

Histopath Description:

A 100-um long stretch of fibrous connective tissue extends from the area of the optic disc towards the posterior capsule of the lens.

Morphological Diagnosis:

MPATH Diagnosis: developmental and structural abnormality MPATH:55

Definitive Diagnosis:

Persistent hyaloid artery

Histopathology Comments:

hyaloid artery remnant is a rare condition in which there remain some parts of the hyaloid artery. The posterior hyaloid vascular system of mice usually undergoes involution in the first month of life (Richard et al., 2000).

Organ/Tissue Analyzed:

Histopathology examination included the following organs and tissues: brain, trigeminal ganglion, eyes, salivary glands, trachea, lungs, heart, thymus, thyroid gland, parathyroid gland, exocrine and endocrine pancreas, oesophagus, stomach, small intestine, large intestine, liver, gall bladder, spleen, kidneys, adrenal gland, lymph nodes, spinal cord, bone marrow, sternum, femur and tibia with associated skeletal muscles, brown fat, pinna, skin, uterus, oviduct, and ovary, and mammary gland.

AnimalID: M00505863 (Female)

Histopathology Findings:

liver (MA:0000358)

Histopath Description:

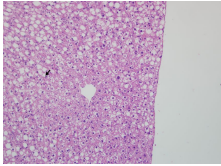
moderate lipidosis

Morphological Diagnosis:

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

Definitive Diagnosis:

Hepatic lipidosis



Liver, moderate
lipidosis, 20x, HE

stomach (MA:0000353)

Histopath Description:

mild neutrophilic gastritis; there is also mild epithelial proteinosis

Morphological Diagnosis:

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

Definitive Diagnosis:

Mild neutrophilic gastritis with epithelial proteinosis

Organ/Tissue Analyzed:

Histopathology examination included the following organs and tissues: brain, trigeminal ganglion, eyes, salivary glands, trachea, lungs, heart, thymus, thyroid gland, parathyroid gland, exocrine and endocrine pancreas, oesophagus, stomach, small intestine, large intestine, liver, gall bladder, spleen, kidneys, adrenal gland, lymph nodes, spinal cord, bone marrow, sternum, femur and tibia with associated skeletal muscles, brown fat, pinna, skin, uterus, oviduct, and ovary, and mammary gland.

Report Summary and Recommendation:

Main finding in this line is minimal or no hepatic lipidosis (2/4) consistent with decreased body weight observed in this line. We could not confirm the abnormalities in snout morphology. There are no findings predictive of embryonic mortality in this line; histopathology analysis of embryos is recommended. We did not find any morphological changes in the reproductive tissues to explain the infertility in this line.