CMHD Pathology Report

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ReportID: Report Date: September 26, 2013
Pathologist: Dr. H. Adissu

CMHD LabID: N13-580

Relevant History:
Phenotype: No phenotype observed

AnimalID: M00404562 (Male)

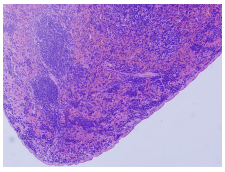
Histopathology Findings:

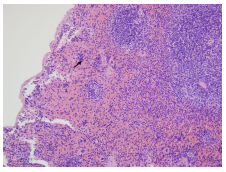
spleen (MA:0000141)

Histopath Description:
Mild erythropoiesis

Morphological Diagnosis:
Distribution: multifocal to coalescing; **Severity:** mild; **MPATH Diagnosis:** extramedullary hemopoiesis MPATH:595

Definitive Diagnosis:
Mild erythropoiesis


Spleen, erythroid hyperplasia, 20x, HE


Spleen, normal, 20x, HE

liver (MA:0000358)

Histopath Description:
diffuse lipidosis

Morphological Diagnosis:
Distribution: diffuse; **Severity:** extreme; **MPATH Diagnosis:** steatosis MPATH:622

Definitive Diagnosis:
hepatic steatosis

lymph node (MA:0000139)

Histopath Description:
early lymphoma

Morphological Diagnosis:
MPATH Diagnosis: lymphoid neoplasms MPATH:513

Definitive Diagnosis:
Early lymphoma

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: M00407559 (Male)

Histopathology Findings:

liver (MA:0000358)

Histopath Description:
diffuse lipidosis

Morphological Diagnosis:
Distribution: diffuse; **Severity:** extreme; **MPATH Diagnosis:** steatosis MPATH:622

Definitive Diagnosis:
hepatic steatosis

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: M00435249 (Female)

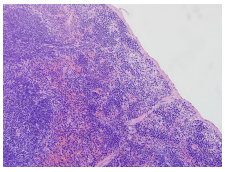
Histopathology Findings:

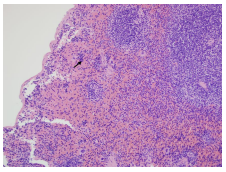
spleen (MA:0000141)

Histopath Description:
moderate erythropoiesis

Morphological Diagnosis:
Distribution: multifocal to coalescing; **Severity:** moderate; **MPATH Diagnosis:** extramedullary hemopoiesis MPATH:595

Definitive Diagnosis:
Moderate erythropoiesis


Spleen, erythroid hyperplasia, 20x, HE


Spleen, WT, normal, 20x, HE

liver (MA:0000358)

Histopath Description:
moderate lipidosis

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

Definitive Diagnosis:
hepatic steatosis

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: M00435254 (Female)

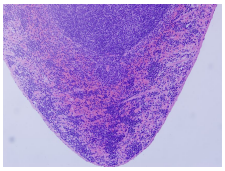
Histopathology Findings:

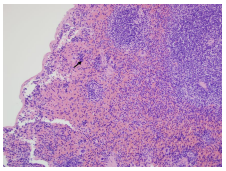
spleen (MA:0000141)

Histopath Description:
Mild erythropoiesis

Morphological Diagnosis:
Distribution: multifocal to coalescing; **Severity:** mild; **MPATH Diagnosis:** extramedullary hemopoiesis MPATH:595

Definitive Diagnosis:
Mild erythropoiesis


Spleen, erythroid hyperplasia, 20x, HE


Spleen, WT, normal, 20x, HE

liver (MA:0000358)

Histopath Description:
diffuse lipidosis

Morphological Diagnosis:
Distribution: diffuse; **Severity:** extreme; **MPATH Diagnosis:** steatosis MPATH:622

Definitive Diagnosis:
hepatic steatosis

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:
Mild to moderate splenic erythroid hyperplasia is observed in 3 of the 4 mice in this line. Other lesions in this line are incidental or attributable to diet or strain background.

In humans mutation in HPRT is associated withLesch-Nyhan syndrome (LNS), also known as Nyhan's syndrome, Kelley-Seegmiller syndrome and juvenile gout. This condition is associated with causes a build-up of uric acid in all body fluids. Careful examination of the urinary organs and tissues revealed no abnormality in this mouse line. Similarly, previous study in HPRT-deficient mice, which are devoid of any purine salvage pathways, show no novel phenotype and are not a model for the behavioral abnormalities associated with the Lesch-Nyhan syndrome (Engle et al., 1996)

Summary: Splenic erythroid hyperplasia (3/4)

References:
Engle SJ et al. HPRT-APRT-deficient mice are not a model for lesch-nyhan syndrome. Hum Mol Genet. 1996 Oct;5(10):1607-10.