



CMHD Pathology Report



CMHD Pathology Core

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ReportID: Report Date: March 12, 2013
Pathologist: H. Adissu

Mouse Genetics Project

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[Mouse Portal](#)
[Europhenome](#)

CMHD LabID: N12-1517

Relevant History:

abnormal fertility/fecundity
increased aggression
increased susceptibility to bacterial infection

AnimalID: M00241275 (Male)

Tissue Preservation and Staining:

Thyroid gland not present

Histopathology Findings:

spleen (MA:0000141)

Histopath Description:

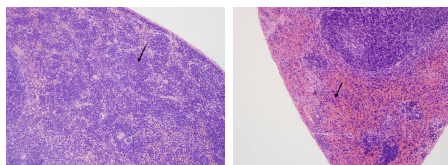
moderate erythroid extramedullary hematopoiesis

Morphological Diagnosis:

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

Definitive Diagnosis:

moderate erythroid extramedullary hematopoiesis



Spleen, moderate
extramedullary
hematopoiesis
(erythroid), 20x

Spleen, wildtype,
normal, note
minimal
hematopoiesis in
red pulp, 20x

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 and plasma cells

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.

liver (MA:0000358)

Histopath Description:

Diffuse lipidosis

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

Diffuse hepatic steatosis

brain (MA:0000168)**Histopath Description:**

Mild hydrocephalus.

Morphological Diagnosis:**MPATH Diagnosis:** hydrocephalus MPATH:639**Definitive Diagnosis:**

Mild hydrocephalus of the lateral ventricles

knee joint (MA:0000471)**Histopath Description:**

there is mild fibrillation of the femoral articular surface

Morphological Diagnosis:**Distribution:** focal; **Severity:** mild;**Definitive Diagnosis:**

Mild joint degeneration

AnimalID: M00241270 (Male)**Tissue Preservation and Staining:**

Small piece of the thymus is present

Histopathology Findings:**spleen (MA:0000141)****Histopath Description:**

minimal extramedullary hematopoiesis (mainly erythroid)

Morphological Diagnosis:**Severity:** mild; **MPATH Diagnosis:** extramedullary hemopoiesis MPATH:595**Definitive Diagnosis:**

Minimal erythropoiesis

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.

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

Diffuse lipidosis

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

Diffuse hepatic steatosis

brain (MA:0000168)**Histopath Description:**

Mild hydrocephalus.

Morphological Diagnosis:

MPATH Diagnosis: hydrocephalus MPATH:639

Definitive Diagnosis:

Mild hydrocephalus of the lateral ventricles

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

There is a cortical indent (collapse). There is extensive tubular hyperplasia that extends from this focus into the deep medulla and pelvis. There are moderate numbers of mononuclear inflammatory cells along the proliferating tubules.

Morphological Diagnosis:

Duration: chronic; **Distribution:** multifocal; **Severity:** severe;

Definitive Diagnosis:

The lesion is typical for old infarct and subsequent tubular regenerative hyperplasia

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

There are occasional aggregates of mononuclear inflammatory cells within the interstitium

Morphological Diagnosis:

Duration: chronic; **Distribution:** multifocal; **Severity:** mild;

Definitive Diagnosis:

Interstitial lymphocytic aggregates

dorsal root ganglion (MA:0000232)**Histopath Description:**

There is marked vacuolation of a single neuron within the dorsal root ganglion

Morphological Diagnosis:

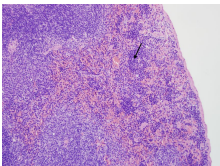
Distribution: focal; **Severity:** mild;

Definitive Diagnosis:

Vacuolation, single neuron

Histopathology Comments:

The significance of this lesion is uncertain



Spleen, minimal extramedullary hematopoiesis, 20x

AnimalID: M00241271 (Female)**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.

parathyroid gland (MA:0000128)

Histopath Description:

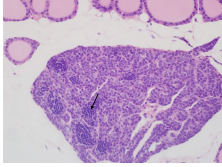
There are aggregates of lymphocytes within the interstitium.

Morphological Diagnosis:

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

Definitive Diagnosis:

Lymphocytic aggregate



Parathyroid gland,
lymphocyte
aggregates, 40x

liver (MA:0000358)

Histopath Description:

Diffuse lipidosis

Morphological Diagnosis:

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

Definitive Diagnosis:

Diffuse hepatic steatosis

brain (MA:0000168)

Histopath Description:

Mild hydrocephalus.

Morphological Diagnosis:

MPATH Diagnosis: hydrocephalus MPATH:639

Definitive Diagnosis:

Mild hydrocephalus of the lateral ventricles

spleen (MA:0000141)

Histopath Description:

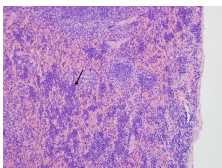
moderate erythroid extramedullary hematopoiesis

Morphological Diagnosis:

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

Definitive Diagnosis:

moderate erythroid extramedullary hematopoiesis



Spleen, moderate
extramedullary
hematopoiesis
(erythroid), 20x

stomach (MA:0000353)

Histopath Description:

moderate neutrophilic gastritis

Morphological Diagnosis:

Distribution: multifocal to coalescing; **Severity:** moderate;

Definitive Diagnosis:

Gastritis, neutrophilic

mammary gland (MA:0000145)**Histopath Description:**

There are moderate numbers of lymphocytes and occasional neutrophils within the mammary interstitium

Morphological Diagnosis:

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

Definitive Diagnosis:

Mastitis

AnimalID: M00241308 (Female)**Histopathology Findings:****spleen (MA:0000141)****Histopath Description:**

minimal extramedullary hematopoiesis (mainly erythroid)

Morphological Diagnosis:

Severity: mild; **MPATH Diagnosis:** extramedullary hemopoiesis MPATH:595

Definitive Diagnosis:

Minimal erythropoiesis

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 and plasma cells

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.

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

Diffuse lipidosis

Morphological Diagnosis:

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

Definitive Diagnosis:

Diffuse hepatic steatosis

brain (MA:0000168)**Histopath Description:**

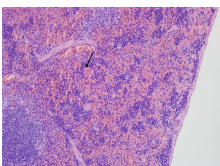
Mild hydrocephalus.

Morphological Diagnosis:

MPATH Diagnosis: hydrocephalus MPATH:639

Definitive Diagnosis:

Mild hydrocephalus of the lateral ventricles



Spleen, minimal extramedullary

hematopoiesis, 20x

Report Summary and Recommendation:

Two mice had moderate splenic erythroid hyperplasia. This finding may be significant considering the role of the gene in hematopoiesis. The gene, Gif, is implicated in congenital pernicious anemia. Other lesions are considered incidental attributable to diet and/or strain background.