



CMHD Pathology Report



CMHD Pathology Core

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ReportID: Report Date: November 09,
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Mouse Genetics Project

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Campus
Hinxton, Cambridge
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CMHD LabID: N11-373

Relevant History:

(Eye Morphology; Plasma Chemistry; Skin Histopathology) Increased circulating alkaline phosphatase, decreased creatinine, persistence of hyaloid vascular system, abnormal melanocyte morphology

AnimalID: M00187601 Prkcz hom

Tissue Preservation and Staining:

There is artefactual separation of dermis and hypodermis

Histopathology Findings:

liver (MA:0000358)

Histopath Description:

There is diffuse hepatic lipidosis.

Morphological Diagnosis:

Distribution: Diffuse; **Severity:** severe; **MPATH Diagnosis:** lipid deposition MPATH:42

Definitive Diagnosis:

Hepatic liposis

lymph (MA:0002520)

Histopath Description:

Lymph nodes appear depleted with reduced size of nodules and poor delineation of B & T cell zones.

Morphological Diagnosis:

Distribution: Diffuse; **Severity:** moderate; **MPATH Diagnosis:** hypoplasia MPATH:133

Definitive Diagnosis:

Lymphoid hypoplasia

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.

eye (MA:0000261)

Histopath Description:

A 100 stalk of fibrous connective tissue containing a small artery in the center extends from the area of the optic disc towards the posterior vitreous. A small fragment of fibrous tissue is freely present

within the vitreous anterior to this stalk (assumed to be extension of the stalk).

Morphological Diagnosis:

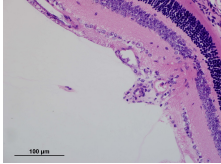
MPATH Diagnosis: developmental and structural abnormality MPATH:55

Definitive Diagnosis:

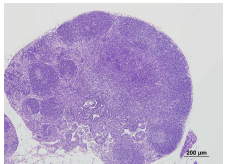
Persistent hyaloid artery

Histopathology Comments:

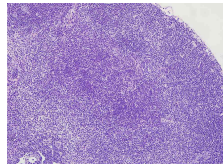
hyaloid artery remnant is a rare condition in which there remain some parts of the hyaloid artery. The posterior hyaloid vascular system of mice usually undergoes involution in the first month of life (Richard et al., 2000).



Eye, hyaloid artery remnant, 40x



Mesenteric lymph node 10x



Mesenteric lymph node 20x

AnimalID: M00187619 Prkcz hom

Tissue Preservation and Staining:

There is artefactual separation of dermis and hypodermis

Histopathology Findings:

brown fat (MA:0000057)

Histopath Description:

There is a focally extensive non suppurative inflammation of the brown fat. There is accompanying brown fat hyperplasia.

Morphological Diagnosis:

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

Definitive Diagnosis:

Mild non-suppurative steatitis with brown fat hyperplasia

Histopathology Comments:

The lesion is likely an extension of an overlying dermatitis and inflammation of the subcutaneous fat (paniculitis)

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:

There is diffuse hepatic lipidosis.

Morphological Diagnosis:

Distribution: Diffuse; **Severity:** severe; **MPATH Diagnosis:** lipid deposition MPATH:42

Definitive Diagnosis:

Hepatic liposis

lymph (MA:0002520)**Histopath Description:**

Lymph nodes appear depleted with reduced size of nodules and poor delineation of B & T cell zones.

Morphological Diagnosis:

Distribution: Diffuse; **Severity:** moderate; **MPATH Diagnosis:** hypoplasia MPATH:133

Definitive Diagnosis:

Lymphoid hypoplasia

eye (MA:0000261)**Histopath Description:**

A 100-300 um long stretch of fibrous connective tissue extends from the area of the optic disc towards the posterior capsule of the lens.

Morphological Diagnosis:

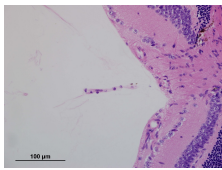
MPATH Diagnosis: developmental and structural abnormality MPATH:55

Definitive Diagnosis:

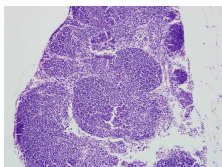
Persistent hyaloid artery

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).



Eye, hyaloid artery remnant, 40x



Mesenteric lymph node, lymphoid hyperplasia, 20x.

AnimalID: M00187627 Prkcz hom

Tissue Preservation and Staining:

There is artefactual separation of dermis and hypodermis

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

There is diffuse hepatic lipidosis.

Morphological Diagnosis:

Distribution: Diffuse; **Severity:** severe; **MPATH Diagnosis:** lipid deposition MPATH:42

Definitive Diagnosis:

Hepatic liposis

lymph node (MA:0000139)**Histopath Description:**

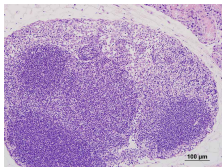
Superficial cervical lymph nodes appear depleted with reduced size of nodules and poor delineation of B & T cell zones.

Morphological Diagnosis:

Distribution: Diffuse; **Severity:** moderate; **MPATH Diagnosis:** hypoplasia MPATH:133

Definitive Diagnosis:

Lymphoid hypoplasia



Cervical lymph node, lymphoid hyperplasia, 20x

lymph node (MA:0000139)

Histopath Description:

The mesenteric lymph node is enlarged (greater than three-fold normal). The medulla and paracortex are expanded but lymphoid follicles are small. There are multiple follicles with small 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.

eye (MA:0000261)

Histopath Description:

A 200-300 um long stretch of partially pigmented fibrous connective tissue that extends from the area of the optic disc towards the posterior capsule of the lens. At the anterior aspect, the tissue has a faint loose fibrous remnants floating in the vitreous.

Morphological Diagnosis:

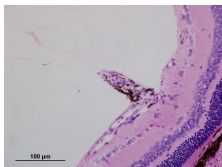
MPATH Diagnosis: developmental and structural abnormality MPATH:55

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).



Eye, hyaloid artery remnant, 40x

AnimalID: M00187629 Prkcz hom

Tissue Preservation and Staining:

There is artefactual separation of dermis and hypodermis

Histopathology Findings:

adrenal gland (MA:0000116)

Histopath Description:

In one of the adrenal glands, there is a focally extensive stream of subcapsular spindle cell proliferation that segmentally displaces the superficial cortical layer.

Morphological Diagnosis:

Distribution: Focal; **Severity:** mild; **MPATH Diagnosis:** hyperplasia MPATH:134

Definitive Diagnosis:

Spindle cell hyperplasia.

Histopathology Comments:

Proliferation of subcortical spindle cells, with displacement of the cortex, is common in mice of all ages. The function of these cells is not known.

liver (MA:0000358)

Histopath Description:

There is diffuse hepatic lipidosis.

Morphological Diagnosis:**Distribution:** Diffuse; **Severity:** severe; **MPATH Diagnosis:** lipid deposition MPATH:42**Definitive Diagnosis:**

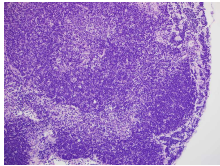
Hepatic lipi-sis

lymph node (MA:0000139)**Histopath Description:**

Superficial cervical lymph nodes appear depleted with reduced size of nodules and poor delineation of B & T cell zones.

Morphological Diagnosis:**Distribution:** Diffuse; **Severity:** moderate; **MPATH Diagnosis:** hypoplasia MPATH:133**Definitive Diagnosis:**

Lymphoid hypoplasia



Mesenteric lymph node, hypoplasia, 20x.

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

Report Summary and Recommendation:

Hyaloid artery remnant is present in 3 mice. This can not be confirmed in the fourth mouse because of sectional variation. In all mice there is a lymphoid hypoplasia involving all or some lymph nodes. Other lesions are incidental as documented in all WTSI lines. Hepatic lipidosi-s is most severe in this line.

Eye: developmental and structural abnormality: MPATH:55

Lymph node: hypoplasia MPATH:133

References:

Richard et al. The Bst locus on mouse chromosome 16 is associated with age-related subretinal neovascularization. PNAS 2000, 97 2191-2195