



CMHD Pathology Report



CMHD Pathology Core

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ReportID: Report Date: not completed
Pathologist: Dr. H. Adissu

Mouse Genetics Project

Wellcome Trust Sanger
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Hinxton, Cambridge
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CMHD LabID: N13-468

Relevant History:

decreased mature B cell number
complete postnatal lethality
preweaning lethality
embryonic lethality

AnimalID: M00886663

Histopathology Findings:

liver (MA:0000358)

Histopath Description:

very minimal hepatic lipidosis

Morphological Diagnosis:

Distribution: multifocal;

Definitive Diagnosis:

very minimal hepatic lipidosis

brain (MA:0000168)

Histopath Description:

There is mild dilation of the lateral ventricles

Morphological Diagnosis:

Distribution: bilateral; **Severity:** mild;

Definitive Diagnosis:

Dilation of the brain ventricles

Histopathology Comments:

Mild dilation of the lateral ventricles is a background condition in mice of C57BL/6N background (Brayton et al., 2004).

retina (MA:0000276)

Histopath Description:

Involving one eye, there are clusters of external nuclear structures within the internal plexiform layer.

Morphological Diagnosis:

Distribution: Focal; **Severity:** mild;

Definitive Diagnosis:

Retinal dysplasia

AnimalID: M00886655

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

very minimal hepatic lipidosis

Morphological Diagnosis:

Distribution: multifocal;

Definitive Diagnosis:

very minimal hepatic lipidosis

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.

retina (MA:0000276)**Histopath Description:**

Involving one eye, there are clusters of external nuclear structures within the internal plexiform layer.

Morphological Diagnosis:

Distribution: Focal; **Severity:** mild;

Definitive Diagnosis:

Retinal dysplasia

AnimalID: M00800173**Histopathology Findings:****liver (MA:0000358)****Histopath Description:**

very minimal hepatic lipidosis

Morphological Diagnosis:

Distribution: multifocal;

Definitive Diagnosis:

very minimal hepatic lipidosis

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

mild erythroid hyperplasia

Morphological Diagnosis:

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

Definitive Diagnosis:

Splenic erythroid hyperplasia

AnimalID: M00800804**Tissue Preservation and Staining:**

lymph node was not available in section for three mice

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

There is mild dilation of the lateral ventricles

Morphological Diagnosis:

Distribution: bilateral; **Severity:** mild;

Definitive Diagnosis:

Dilation of the brain ventricles

Histopathology Comments:

Mild dilation of the lateral ventricles is a background condition in mice of C57BL/6N background (Brayton et al., 2004).

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

One of the superficial lymph nodes is enlarged more than two-fold. Its architecture is altered by large numbers of monomorphic lymphocytes that fill and distend all the sinuses and elevate the capsule. The neoplastic cells have generally a scant amount of eosinophilic cytoplasm, medium sized round central nucleus with granular chromatin, and single variably distinct amphophilic nucleoli. Mitotic figures are (less than 1/HPF).

Definitive Diagnosis:

Lymphoma

Histopathology Comments:

The lesion is suggestive of an early lymphoma of the mesenteric lymph node.

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

No hepatic lipidosis

Definitive Diagnosis:

No hepatic lipidosis

retina (MA:0000276)**Histopath Description:**

Involving one eye, there are clusters of external nuclear structures within the internal plexiform layer.

Morphological Diagnosis:

Distribution: Focal; **Severity:** mild;

Definitive Diagnosis:

Retinal dysplasia

Report Summary and Recommendation:

Hepatic lipidosis is absent or minimal in this line. We did not find lesions to explain embryonic or early preweaning lethality. Analysis of embryo/fetus and mice at preweaning age may explain cause mortality. Other lesions are attributable to diet or strain background.