



CMHD Pathology Report



CMHD Pathology Core

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ReportID: Report Date: November 23,
2011
Pathologist: H. Adissu

Mouse Genetics Project

Wellcome Trust Sanger
Institute
Wellcome Trust Genome
Campus
Hinxton, Cambridge
CB10 1SA
UK

CMHD LabID: N11-370

Relevant History:

(Fertility) Abnormal fertility; homozygous male infertility, abnormal behaviour, hyperactivity, increased T cells in males, abnormal lens morphology, cataract

AnimalID: M00359927 Usp42 hom

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 lipidosis

liver (MA:0000358)

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Definitive Diagnosis:

Hepatic lipidosis

stomach (MA:0000353)

Histopath Description:

There are low numbers of neutrophils and moderate numbers of eosinophils within the lamina propria of the glandular region at the limiting ridge.

Morphological Diagnosis:

Duration: Sub-acute; **Distribution:** Multifocal; **Severity:** mild; **MPATH Diagnosis:** inflammation MPATH:212

Definitive Diagnosis:

Gastritis, suppurative

Histopathology Comments:

This lesion is most commonly associated with Helicobacter infection. Further investigation is suggested using histochemistry (Silver stain) or colony fecal PCR. The presence of eosinophils suggest allergic cause.

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ovary (MA:0000384)**Histopath Description:**

Within the ovary is a large corporal lutea and few compressed growing follicles at the margin.

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AnimalID: M00359924 Usp42 hom**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 lipiposis

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

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Morphological Diagnosis:

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Definitive Diagnosis:

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Within the ovary is a large corpora lutea and few compressed growing follicles at the margin.

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Within the ovary is a large corporal lutea and few compressed growing follicles at the margin.

brain (MA:0000168)

Histopath Description:

There is a mild enlargement of the lateral ventricle.

Morphological Diagnosis:

Severity: mild; **MPATH Diagnosis:** hydrocephalus MPATH:639

Definitive Diagnosis:

hydrocephalus, lateral ventricle

Histopathology Comments:

Variable degree of hydrocephalus is observed in a proportion of wild type C57 Black 6 mice.

brain (MA:0000168)

Histopath Description:

There is a mild enlargement of the lateral ventricle.

Morphological Diagnosis:

Severity: mild; **MPATH Diagnosis:** hydrocephalus MPATH:639

Definitive Diagnosis:

hydrocephalus, lateral ventricle

Histopathology Comments:

Variable degree of hydrocephalus is observed in a proportion of wild type C57 Black 6 mice.

AnimalID: M00359916 Usp42 hom

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 lipiposis

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 lipiposis

testis (MA:0000411)**Histopath Description:**

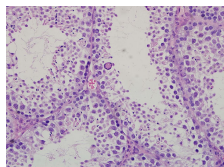
There are numerous multinucleated spermatids with pyknotic nuclei and vesicular cytoplasm. Numerous spermatids with hypereosinophilic cytoplasm and pyknotic nuclei are present (apoptosis). Spermatocytes are absent or rare within the seminiferous tubule. Occasional seroti cell vacuolation is present.

Morphological Diagnosis:

Distribution: Diffuse; **Severity:** severe; **MPATH Diagnosis:** degenerative change MPATH:14

Definitive Diagnosis:

Testicular degeneration and Testicular atrophy and lack of spermatogenesis.



Testis-Testicular degeneration and Testicular atrophy and lack of spermatogenesis, 40x

testis (MA:0000411)**Histopath Description:**

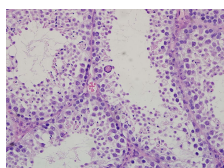
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Testis-Testicular degeneration and Testicular atrophy and lack of spermatogenesis, 40x

epididymal duct (MA:0001735)**Histopath Description:**

Scattered cell debris are present within the tail of epididymis; spermatocytes are not present.

Morphological Diagnosis:

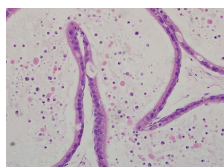
Distribution: Diffuse; **Severity:** severe; **MPATH Diagnosis:** hypoplasia MPATH:133

Definitive Diagnosis:

Epididymal aspermia

Histopathology Comments:

The absence of spermatozoa is consistent with the observed seminiferous atrophy.



Epididymal duct- Epididymal aspermia, 40x

epididymal duct (MA:0001735)**Histopath Description:**

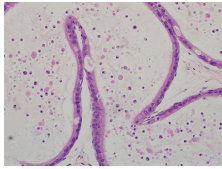
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Epididymal duct-
Epididymal
aspermia, 40x

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Gastritis, suppurative

Histopathology Comments:

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AnimalID: M00358301 Usp42 hom**Tissue Preservation and Staining:**

There is artefactual separation of the dermis from the hypodermis

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

There is focally extensive 200x 150 um necrosis admixed with large numbers of neutrophils within the pancreas parenchyma (appears to center on an islet).

Morphological Diagnosis:**Duration:** Acute; **Distribution:** Focal; **Severity:** mild; **MPATH Diagnosis:** inflammation MPATH:212**Definitive Diagnosis:**

Necrosuppurative pancreatitis, focal

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

There is diffuse hepatic lipidosis.

Morphological Diagnosis:

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Definitive Diagnosis:

Hepatic lipiosis

testis (MA:0000411)

Histopath Description:

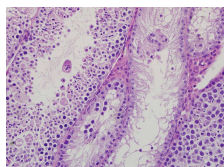
There are numerous multinucleated spermatids with pyknotic nuclei and vesicular cytoplasm. Numerous spermatids with hypereosinophilic cytoplasm and pyknotic nuclei are present (apoptosis). Spermatocytes are absent or rare within the seminiferous tubule. Occasional seroti cell vacuolation is present.

Morphological Diagnosis:

Distribution: Diffuse; **Severity:** severe; **MPATH Diagnosis:** degenerative change MPATH:14

Definitive Diagnosis:

Testicular degeneration and Testicular atrophy and lack of spermatogenesis.



Testis-Testicular degeneration and Testicular atrophy and lack of spermatogenesis.
40x

testis (MA:0000411)

Histopath Description:

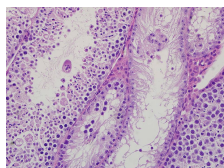
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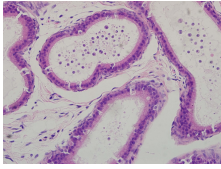
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Definitive Diagnosis:

Epididymal aspermia

Histopathology Comments:

The absence of spermatocytes is consistent with the observed seminiferous atrophy.



Epididymal duct-
Epididymal
aspermia, 40x

epididymal duct (MA:0001735)

Histopath Description:

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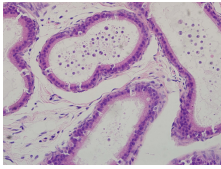
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Definitive Diagnosis:

Epididymal aspermia

Histopathology Comments:

The absence of spermatocytes is consistent with the observed seminiferous atrophy.



Epididymal duct-
Epididymal
aspermia, 40x

eye (MA:0000261)

Histopath Description:

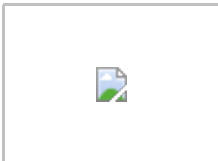
The iris is focally hyperplastic and adhered to the cornea

Morphological Diagnosis:

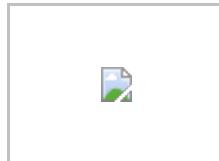
Distribution: focally extensive; **Severity:** moderate; **MPATH Diagnosis:** hyperplasia MPATH:134

Definitive Diagnosis:

Iridial hyperplasia and anterior synechia



Iris, eye 1, normal
iris, 10x



Iris, eye 2, iris
hyperplasia and
anterior synechia,
10x

Report Summary and Recommendation:

Testicular degeneration and epididymal hypospermia is present in this line, consistent with abnormal fertility/fecundity observed during in-life phenotype.

Testis: Degenerative change : MPATH:14