Crispin DYE

PM 93/2466 (TG)

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NAME: Crispin DYE

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Macroscopic Brain Description

The brain was examined after fixation. The dura was normal.

The leptomeninges showed an area of subarachnoid haemorrhage over the convexities of both cerebral hemispheres (parietal and occipital lobes), this area measured 14 x 8 cm.

The brain was swollen. There was flattening of the gyri, softening of the cerebellar tonsils and bilateral mild uncal herniation with associated haemorrhage of the right uncus (at the level of the mamillary bodies).

The brain was cut coronally at 1 cm intervals. There was some discolouration of the grey matter.

On the left fronto-parietal cortex, there was an haemorrhage? that measured 1.5 x 0.1 cm.

The brain stem appeared normal and was cut in the transverse plane at 5 mm intervals, no abnormalities were noted.

The cerebellum was cut in the sagittal and parasagittal planes and no abnormalities were noted.

There was congestion of the vessels but no petechial haemorrhages were noted.

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Macroscopic summary

1. SUBARACHNOID HAEMORRHAGE (PARIETO-OCCIPITAL LOBES).

2. BRAIN SWELLING

   a) MILD BILATERAL UNCAL HERNIATION WITH HAEMORRHAGE ON THE RIGHT SIDE

   c) FLATTENING OF THE GYRI

Microscopic examination

Cerebellar vermis:	Hypoxic changes of Purkinje cells.
Right cerebellar tonsil:	Hypoxic changes of the Purkinje cells, focal fragmentation of the tissue and leucostasis with early margination were noted. Bergmann glia were a little prominent.
Left cerebellar tonsil:	Some of the neurones showed hypoxic changes with associated leucostasis. Some of the Purkinje cells had been lost. Bergmann glia were a little prominent.
Mid-brain:	Occasional eosinophilic bodies and hypoxic neurones were noted in the substantia nigra. These eosinophilic bodies are difficult to interpret, they can be hypoxic neurones or axonal swellings. Hypoxic changes of the trochlear neurones, more apparent on one side and inferior colliculi were noted.
Left fronto-parietal cortex:	Large, recent haemorrhages were noted in the white matter. Some of the pyramidal cells showed eosinophilic changes of the cytoplasm and hyperchromasia of the nuclei. These changes are suggestive of hypoxia.
Right frontal cortex:	Normal, except for hypoxic changes of some of the cortical neurones.
Cingula:	No abnormality detected except for a mild perivascular haemorrhage and hypoxic changes of the neurones.

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Right uncus: Patchy recent haemorrhages noted beneath the groove. Some pyramidal neurones showed hypoxic changes. A few lymphocytes were seen around blood vessels.

Left uncus: There was a small groove on the inferior surface. Hypoxic pyramidal neurones and perivascular lymphocytes were noted.

Mamillary body: Only one of the mamillary bodies was examined. Here, some of the pyramidal neurones had hypoxic changes.

Right hippocampus: Hypoxic changes were noted on some of the hippocampal pyramidal neurones and of the pyramidal cells of the temporal cortex.

Left hippocampus: Hypoxic changes of the pyramidal neurones were noted.

Basal ganglia (Putamen and caudate): Hypoxic changes of the neurones were noted.

Left parieto-temporal cortex: Hypoxic changes of the pyramidal neurones were noted.

Parieto-occipital cortex: There was a recent subarachnoid haemorrhage. Hypoxic changes of the pyramidal neurones were also noted.

Right thalamus: The neurones showed marked hypoxic changes.

CONCLUSION:

1. **Traumatic subarachnoid haemorrhage.**
2. **Diffuse hypoxic changes.**
3. **Brain swelling.**

   a) **Flattening of the gyri.**
   b) **Bilateral mild uncal herniation with associated haemorrhage on the right uncus.**

Dr L Schwartz
Pathology Registrar
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