

the immediate cause for the deceased's death was the Neuroleptic Malignant Syndrome (NMS).

This is a rare, and probably the most serious, complication of neuroleptic medication, and it has been reported following treatment with chlorpromazine.

Criteria for making the diagnosis of NMS seem to vary somewhat between papers⁽¹⁻⁵⁾, but the major findings seem to include:-

- Fever, particularly over 38.5°C;
- Neurological features – e.g. rigidity, dysphagia, tremor, dystonia, chorea, opisthotonus, seizures, trismus, and fluctuating conscious levels;
- Autonomic instability – e.g. hypertension, hypotension, tachycardia, tachypnoea, and sweating;
- Laboratory abnormalities – e.g. elevated CK levels, leucocytosis, elevated transaminase levels, myoglobinuria, and renal function impairment;
- Absence of other identifiable physical illnesses.

In this particular case, I would point to the following findings documented over the last 24 hours or so of the deceased's life:-

- Marked fever – “over 40°C” and “42°C” were mentioned;
- Autonomic problems – hypertension, hypotension, tachycardia, tachypnoea, and sweating;
- Significantly elevated serum creatinine kinase enzyme (CK) concentration;
- Elevated serum aspartate aminotransferase enzyme (AST) concentration;
- Possible mild/early renal function impairment;
- No other explanations for these findings, - in particular, the blood cultures were negative, the chest X-ray was normal, and no evidence of local or systemic infection was found at autopsy.

Several neurological features were present, but I can not distinguish any which may have specifically resulted from NMS from those directly attributable to the deceased's brain damage.

I am aware that the subject of NMS was raised at trial, and that Professor Crane excluded it on the basis of there being no histological findings in the brain, liver or kidneys to support this diagnosis (transcript,