

## 41<sup>st</sup> ANNUAL DIAGNOSTIC SLIDE SESSION

### CASE 2000-05

Submitted by:

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#### Clinical History

Four years before his death this 82-year-old man first noticed gait disability, and several falls occurred. During a routine examination at another hospital, he was found to have atrial fibrillation. Cardioversion was applied but he continued to have cardiac arrhythmia. His past medical history also included *in situ* carcinoma of the bladder and aortic valvular disease. His abnormal gait was attributed to Parkinsonism but a treatment trial with carbidopa/L-dopa was not successful. A magnetic resonance imaging study (MRI) of his head was interpreted as showing a "pontine glioma", and radiation therapy followed. The imaging studies were re-interpreted elsewhere and a consensus was reached that the findings did not represent a tumor of the brainstem.

Two years later, he was evaluated at another center and his findings were thought compatible with progressive supranuclear palsy. One year later, an extensive new examination by a consulting neurologist revealed the following: defective memory for recent events, slow and jerky eye movements, defective saccades, an absent optokinetic nystagmus on vertical movement of the tape. His speech lacked clarity. His power was good everywhere but he had neck and extremity rigidity. Reflexes were not remarkable. He required a wheelchair and walked by holding on to it. He took lurching ataxic steps and did not pivot well. He had lateropulsion and readily lost his balance. The interpretation was that of multiple system atrophy. Low-dose pergolide was begun. Additional MRI were obtained. They were interpreted as normal. He made three follow-up visits before he died. They all indicated further deterioration of his Parkinsonism but also produced evidence of some dysautonomia, including incontinence.

His neurological disability required admission to a nursing home. Urinary retention and herpes zoster prompted hospital admission, and the diagnosis of carcinoma of the prostate was made. His prostate-specific antigen rose to 92, and a bone scan showed innumerable metastases. Comfort measures were taken, and he died 4 years after the onset of his neurological disability.

The general autopsy revealed adenocarcinoma of the prostate with metastatic spread, cardiomegaly and atherosclerosis. The brain weighed 1130 g and showed massive hydrocephalus.

Material submitted: one slide of the brainstem stained with hematoxylin and eosin; one unstained slide.

Points of discussion: Diagnosis