CASE #4

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The 59-year-old woman had systemic lupus erythematosus diagnosed in October, 1976. She had a positive ANA, negative LE prep, a persistent Coomb's positive hemolytic anemia, a circulating anticoagulant, and thrombocytopenia. She was placed on steroids and subsequently developed complications secondary to this treatment, including obesity, diabetes mellitus and myopathy. In July 1978, she underwent splenectomy in an attempt to resolve the thrombocytopenia and to permit tapering of the steroids. At that time, liver biopsy showed cirrhosis and kidney biopsy showed proliferative glomerulonephritis. She did well after the surgical procedures, and her steroids were being tapered. However, 3 weeks later, two days prior to her final admission, she developed persistent chills and fevers. On the day of admission, she became confused and disoriented and had a temperature of 39.5°C. The patient was taking Cytoxan 150 mg PO and prednisone 10 mg PO daily at the time of admission.

Examination revealed an agitated, disoriented woman who had a grade 2/6 systolic ejection murmur, and bilateral cataracts. The hematocrit was 45% and white count was 7900 with 76 PMN's, 21 bands, 1 lymphocyte and 3 monocytes. CSF contained increased protein. She had an E-coli urinary tract infection. Chest X-ray revealed a diffuse slight interstitial infiltrate. A C-T scan performed the day of admission revealed a lucency in the right parietal area. The C-T scan was repeated two days later and showed massive infarction in the right parietal temporal and frontal lobes. She deteriorated over the next two days and developed a hemiparesis and coma. Her left pupil became dilated, and she developed bilateral Babinski signs. She died four days after admission.

NECROPSY FINDINGS: Interstitial pneumonia, cirrhosis, proliferative glomerulonephritis and left ventricular hypertrophy. Multiple areas of cerebrum, brain stem and cerebellum were hemorrhagic and necrotic.

MATERIAL SUBMITTED: One (1) slide stained with H & E.

POINTS FOR DISCUSSION:

1. What is the cause of the fibrinoid necrosis in the vessels?

2. To what is the hemorrhagic necrosis of brain due?