Fig Deposition of fluoresceinated antisera to IgA in the choroid plexus in a case of systemic hypertension.

apparently in relation to the epithelial basement membrane, with thickening of this structure. The immunofluorescence in the choroid plexus was negative in all cases of the control group. Histopathological changes of the choroid plexus, with a pattern similar to that of the systemic hypertension group, were found in only two of the control group.

Our results indicate that in about 25% of patients with systemic hypertension the choroid plexus is a site for the deposition of Ig and fractions of C. We suggest that these findings may be secondary to increased vascular permeability produced by hypertension, leading to the passage of plasma and retention of circulating immune complexes in the walls of the choroid plexus, perhaps in a manner analogous to that which occurs in the kidney.¹³ A question unanswered by this work is the nature of antigens which stimulate the immune complexes formation and lead to their precipitation in the choroid plexus in some cases of systemic hypertension. Further research into the identification of these antigens as well as the demonstration of a pathogenetic association between immune complexes and histopathological changes in the choroid plexus is needed.

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Increased red cell volume distribution width in patients with bone marrow metastases

Marrow infiltration by malignant cells is a common finding in patients with some types of cancer and in patients with Hodgkin's disease and non-Hodgkin's lymphoma. Although in such cases the spread of tumour is usually associated with haematological changes, clinical signs, or radiological findings, marrow metastases can sometimes be found in patients with advanced cancer without any obvious abnormality. For this reason bone marrow biopsy is often carried out as part of the evaluation of patients with cancer.

We report on a haematological abnormality in the peripheral blood that was found in patients with marrow infiltration by malignant cells. As far as we are aware this is the first such study.

The red cell volume distribution width (RDW), which is an expression of the size distribution spread of the erythrocyte population, was measured in 64 patients with bone marrow infiltration by cancer or Hodgkin's disease, in 46 patients with breast and lung cancer, and in 12 patients with Hodgkin's disease who had no evidence of marrow infiltration (figure). The measurement was made on a Coulter S-plus machine. It is computed from the red blood cell histogram and is the coefficient of variation (CV) expressed in per cent of the red blood cell size distribution.

The results are shown in the figure. A gross deviation above the normal limits was observed in over 90% of the patients. The mean value for all three patient groups with marrow infiltration was increased compared with patients with the same type of cancer but without bone marrow metastases; this finding was significant ($p < 0.01$, χ^2).

The precise pathophysiological mechanism of the changes in erythropoiesis is not quite clear. Perhaps anaemia is the expression of quantitative changes which occur in the infiltrated marrow (replacement, fibrosis) while increased RDW is the expression of qualitative disturbances of erythropoiesis.

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Fig Measurement of RDW in 122 patients studied.