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Cryopathic Haemolytic Anaemia Associated with Uterus Myomatosus

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Cold agglutinins are commonly found in patients with lymphoreticular neoplasms, and in some infections and autoimmune disorders [2, 3]. Recently, we have encountered a patient with uterus myomatosus who developed cold-agglutinin-induced haemolytic anaemia. Hysterectomy was followed by the prompt disappearance of cold-reacting antibodies. The association of cryopathic haemolytic anaemia with non-lymphoreticular neoplasms is rare, and has not yet been described in uterus myomatosus.

Case Report

A 38-year-old woman was admitted in May 1978 for evaluation of progressive weakness and anaemia. The spleen was palpated 6 cm below the costal margin and the uterus was grossly enlarged. The haemoglobin was 6 gm/dl, haematocrit 21% and reticulocytes 3%. Leucocyte and platelet counts were normal. Tests for antinuclear factor, LE cells, rheumatoid factor, mycoplasma and infectious mononucleosis were negative. Serum complement was 64 mg/dl (normal > 80 mg/dl). The direct Coomb's test was positive for C3 and C4 and negative for IgG. The cold agglutinin titre was 1/2048 with IgM, anti-I specificity. Bone marrow aspiration revealed erythroid hyperplasia. The T1/2 red cell survival was 8 days. On June 13th, 1978, hysterectomy was performed. A large uterine tumour was found, and histological examination was compatible with benign myoma. 10 days following hysterectomy, the cold agglutinin titre declined to 1/32, the reticulocytes were 0.9% and the haemoglobin 12 g/dl. 1 year after surgery, the patient was in perfect health without splenic enlargement. The haemoglobin was 15 g/dl, and cold agglutinins were undetectable.

Discussion

A cause and effect relationship between the uterine tumour and the haemolytic anaemia is suggested by the prompt disappearance of cold agglutinins and cure of haemolytic anaemia following hysterectomy. Haemagglutinins have been shown to exist in some malignant tissues [4], but extracts of the tumour in the present case showed no haemagglutinating activity. Alternatively, tumour-associated antigens may have stimulated the production of antibodies cross-reacting with the I antigen of autologous erythrocytes [1].

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