

Eur J Cancer, Vol. 27, No. 3, pp. 304, 1991.
 Printed in Great Britain
 0277-5379/91 \$3.00 + 0.00
 © 1991 Pergamon Press plc

Haemolytic Anaemia with Positive Cryoglobulin Test in a HIV Positive Man

L. Gaffuri, L. Repetto, E. Rossi, C. Oliva,
 R. Rosso and F. Rizzo

WE REPORT a HIV-positive patient with Kaposi sarcoma and severe haemolytic anaemia with positive antiglobulin test and cryoagglutinaemia. In 1986 a 51-year-old homosexual man was admitted to S. Martino hospital with localised skin lesions. A cutaneous biopsy was performed and Kaposi sarcoma was diagnosed. Immunological evaluation revealed HIV seropositivity. No treatment was administered. In December 1989 he was readmitted with acute pneumonia, disseminated skin and visceral lesions, and severe anaemia. Laboratory tests revealed haemoglobin (Hb) 3.9 g/dl, reticulocytes 25%, total bilirubin 2.7 mg/dl, indirect bilirubin 2.5 mg/dl, lactate dehydrogenase (LDH) 809 U/l (230-460 U/l) and aptoglobin 3 mg/dl. Direct antiglobulin test was positive (9/12) for IgG and C3d; cryoagglutinins were present with a high titre (anti-I-activity).

Antiphospholipid antibodies were present. Bone marrow trephine biopsy was performed and showed hyperplasia of erythroid lineage with signs of dyserythropoiesis. The patient was treated with methylprednisolone 60 mg twice a day for 7 days then reduced to 10 mg twice a day and received 6 units of packed red blood cells. The patient experienced a prompt and complete recovery of haemolysis.

Correspondence to L. Repetto.

L. Gaffuri and F. Rizzo are at the Divisione Malattie Infettive, and E. Rossi is at the Divisione Ematologia, Osp. S. Martino, Genova; and L. Repetto, C. Oliva and R. Rosso are at the Istituto Nazionale per la Ricerca sul Cancro V. le Benedetto XV, 10, Genova, Italy.

Received and accepted 7 Dec. 1990.

He received 3 courses of chemotherapy on an outpatient basis for Kaposi sarcoma, with etoposide 150 mg/m² days 1-3 every 3 weeks and stabilisation of the disease was obtained.

In February 1990 he was discharged; at that time Hb was 10 g/dl, total bilirubin was 1.1 mg/dl, and aptoglobin was 65 mg/dl. In April he was readmitted for severe disseminated *Pneumocystis carinii* infection, and died on 9 April 1990.

Almost all patients with AIDS and AIDS related complex (ARC) are anaemic as a result of these chronic diseases with multiple infections or neoplasias [1].

Positive direct antiglobulin results were reported in about 20% of AIDS patients [2-4]. The red cell bound immunoglobulins were weak, IgG, or only due to bound complement. Van der Lellie *et al.* did not detect a positive antiglobulin test in any patient [5]. It is possible that circulating immunocomplexes may nonspecifically attach themselves to the red cell membrane resulting in a non-specific positive direct antiglobulin test [4]. It is also possible that more specific antibodies against a phospholipid antigen on the red cell membrane account for the positive direct antiglobulin test, which may be due to hyperglobulinaemia [2]. In any case the consensus is that red cell bound immunoglobulins are not responsible for AIDS induced anaemia [6].

To our knowledge, this is the first case report of immune haemolytic anaemia with cryoagglutinins in an AIDS patient.

1. Zon LJ, Groopman JE. Hematologic manifestations of the human immunodeficiency virus (HIV). *Semin Hematol* 1988, 25, 208-218.
2. Toy PTCY, Reid ME, Burns M. Positive direct antiglobulin test associated with hypergammaglobulinemia in acquired immunodeficiency syndrome (AIDS). *Am J Hematol* 1985, 19, 145-150.
3. McGinnis MH, Macher AM, Rook AH, Alter HJ. Red cell autoantibodies in patients with acquired immunodeficiency syndrome. *Transfusion* 1986, 26, 405-409.
4. Zon LJ, Arkin C, Groopman JE. Hematologic manifestations of the human immunodeficiency virus (HIV). *Br J Haematol* 1987, 66, 251-256.
5. van der Lellie J. Immune cytopenias in human immunodeficiency virus infection. In Engelfriet CP, von dem Borne AEG, eds. *Clinical Immunology and Allergy. Alloimmune and Autoimmune Cytopenias*. London, Balliere Trindall, 487-496.
6. Dodworth H, Weiner E. Non immune nature of anemia in HIV infection. *Br J Haematol* 1988, 68, 498-499.