coincidence, our hypothesis is that the low dose of ^{131}I used for thyroid disease could generate a chromosomal aberration, particularly (t 9,22) (q34 q11) developing, with a long latency, CML or in this case Ph$^+$ ALL. Although the risk of leukemia after ^{131}I exposure cannot be considered a contraindication to ^{131}I therapy, strict hematologic follow-up of patients submitted to ^{131}I treatment is recommended. Retrospective analysis of ^{131}I exposure in large leukemia registries may also be worthwhile.

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Key words

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Two cases of fatal transfusion-associated bacterial sepsis provoked by *Providencia rettgeri*

Sir,

Bacterial contamination of blood components is an exceptional, but probably underestimated, adverse effect of transfusion and has a high mortality rate.[1] We describe two patients who died from sepsis secondary to the transfusion of blood components produced from the same donor.

A 51-year old male with ulcerative colitis who underwent a total colectomy with conservation of the rectum 20 years before was admitted for removal of the rectal stump. In the post-operative period, he developed chills without fever coinciding with the transfusion of a non-leukocyte-reduced red cell unit. The transfusion was stopped and studies of blood samples from both the patient and the bag excluded an acute hemolytic transfusion reaction. The unit, which was twenty days old, had been correctly stored at 2-6°C until just before being taken to the bedside. Half an hour later, the patient became pyrexial and shocked, with bleeding and evidence of disseminated intravascular coagulation. Suspecting septic shock, blood cultures from the patient and the bag were made, using Bactec Plus® aerobic and anaerobic bottles, which were processed in a Becton Dickinson 9240 R device. Since the patient did not improve, a laparotomy was carried out 48 hours later. Diffuse abdominal bleeding and a pelvic hematoma were found. At that moment, blood cultures from both the patient and the transfused unit grew *Providencia rettgeri* sensitive to all antibiotics administered. The patient died 24 h after the second surgical operation.

The Regional Transfusion Center that had provided the unit was informed. It located the other components produced from the same donation. Multiple cultures of the stored fresh frozen plasma were negative. The platelet concentrate had been transfused on the third day of its useful life in another hospital, using a leukocyte adsorption filter, to a patient with acute leukemia. This patient developed sepsis provoked by *P. rettgeri* and died, but the platelet concentrate was not cultured. Laboratory data concerning the isolates involved in both cases were reviewed and demonstrated the same biochemical identification and sensitivity to antibiotics. These facts strongly suggest that the bacteria provoking the two septic episodes were of the same strain. The Regional Transfusion Center located the donor, who could not attend a medical review, but by phone stated that he was healthy in the days prior, during and after the donation.

To our knowledge, this is the first description of two probably linked episodes of bacterial contami-

nation of blood products. In this case, the transmission of a strain of *P. rettgeri* originated from the same donor, resulted in the death of two patients. Although Gram negative bacilli have been described as contaminants of blood products, we have not found any references concerning *P. rettgeri*.[2,3] In the present case, the donor could not be studied, but the contamination was probably the result of an asymptomatic bacteriemia in an apparently healthy donor. The fact that cultures from the frozen plasma were negative could be explained by a germicide effect of a storage temperature below –30ºC, by an effect of antibodies and complement present in plasma, or because the microbes are predominantly carried by leukocytes.

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Key words

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Autologous stem cell transplantation in chronic carriers of hepatitis B virus and hepatitis C virus affected by onco-hematologic diseases

Sir,

Hepatitis B virus (HBV) reactivation, which follows withdrawal of immunosuppressive therapy or standard and high-dose chemotherapy is a well-known complication in chronic HBV carriers;[1,2] the same complication was recently reported also for chronic hepatitis C virus (HCV) carriers.[3,4]

The incidence of these viral infections is high in onco-hematologic patients[5,6] and, for the reason mentioned above, the management of such patients is often difficult. This observation prompted us to evaluate retrospectively hepatic toxicity in 11 onco-hematologic patients (5 carriers of HBsAg and 6 of HCV-RNA) submitted to autotransplantation at our institute between March 1992 and June 1998.

Table 1. Patients' characteristics.

Characteristics	*No. of patients*
Male	7
Female	4
Age median (range)	41 (26-56)
Diagnosis	
Diffuse large B-cell lymphoma	4
Marginal zone lymphoma	2
Follicular centre lymphoma	2
Mantle cell lymphoma	1
Breast cancer	1
Chronic myelogenous leukemia	1
Virology	
HCV-RNA	6
HBsAg	5
First-line treatment	
Non-Hodgkin's lymphoma	
' 6 cycles of CHOP	2
' 6 cycles of F-MACHOP	7
Breast cancer	
' 6 cycles of FEC	1
Chronic myelogenous leukemia	
' IFN	1

Abbreviations: CHOP = vincristine; cyclophosphamide; doxorubicin; prednisone; F-MACHOP = vincristine; cyclophosphamide; 5-fluorouracil; cytosine-arabinoside; doxorubicin; methotrexate; prednisone; FEC = cyclophoshamide; epirubicin; 5-fluorouracil.

Nine of these patients (4 HBsAg) were affected by non-Hodgkin's lymphoma (NHL), 1 (HCV) by chronic myelogenous leukemia and 1 (HBsAg) by breast cancer (BC) (Table 1).

During first-line treatment (Table 2) only one patient, an HBsAg carrier affected by NHL and treated according to the F-MACHOP regimen, developed a reactivation of chronic hepatitis one month after the last cycle of chemotherapy. He was admitted for supportive therapy and recovered fully in two months. Three months later he was submitted to autotransplantation. During the transplant and for the following six months, he was treated with prophylactic doses of lamivudine (100 mg/die).[7] The entire transplant procedure was tolerated well and he is currently alive in complete remission (CR) and with normal liver function tests. The other patients tolerated both first-line therapy and transplantation well. Engraftment was observed in all and hematologic and extra-hematologic toxicities were mild (Table 2).

In the immediate post-transplantation period (one month from transplant) only the BC patient (an HBsAg carrier) developed hepatitis (transaminase levels ×20-40 upper level of normal) not associated with the detection of HBV-DNA. No other complications or toxic deaths were observed.