

## LIVER INVOLVEMENT DURING HCV INFECTION IN CHRONIC LYMPHOPROLIFERATIVE DISEASES

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Sir,

we have read with interest the paper *Evaluation of hepatitis B and C infection in patients with non Hodgkin's lymphoma (NHL) and without liver disease*, by Musolino *et al.*,<sup>1</sup> which confirms the close relationship between HCV infection and NHL, at least in Italy. Indeed, their data are in agreement with those of other Italian groups spreading all over the country that have shown a high prevalence of HCV infection in patients with B-cell lymphomas, especially immunocytomas and Waldenström macroglobulinemia (WM).<sup>2-4</sup> In their paper the authors suggest that HCV may chronically infect NHL patients without producing liver damage. This is a rather surprising statement, since up to now there is no evidence that HCV can cause an active infection without liver involvement.

We have investigated clinical, histological and virologic findings in a series of 38 patients affected by B-cell chronic lymphoproliferative disorders: 19 low grade lymphomas (ten of which with an IgM monoclonal component), 10 high

grade lymphomas, 3 chronic lymphocytic leukemias and 6 IgM monoclonal gammopathies. Ten patients (26%) had anti-HCV antibodies detectable in their serum by third generation Elisa assay, and in all of them the confirmatory test (Riba III) was positive. Viral mRNA was detected by a PCR technique in the serum of 7 of them (Table 1). Thus in a series of patients residing in another Italian region (Lazio) we have confirmed the high prevalence of HCV contact in patients with B-cell chronic lymphoproliferative diseases. Only one of the positive patients had received blood products. serum transaminases were normal. Serum transaminases were elevated in one patient, slightly elevated in four and normal in five (Table 1). In all ten patients we performed a liver biopsy. Histology documented cirrhosis in one patient, chronic hepatitis in 6, steatosis in 2, infiltration by NHL in 3 and normal structure in one (Table 1). In 5 out of 7 patients with histological findings of hepatitis serum transaminases were normal.

Thus, it is apparent that a liver involvement

Table 1.

Pt	Sex/age	Diagnosis	HCVab	HCV-RNA	Transf.	SGOT/SGPT	Liver histology
1	GL f/77	NHL+ IgM	+	+	no	16/11	chronic hepatitis & lymphoma infiltration
2	PM f/67	NHL+ IgM	+	+	no	57/60	steatosis
3	SE f/45	HGL	+	-	no	26/14	chronic hepatitis
4	FD f/53	HGL	+	+	no	29/21	chronic hepatitis
5	CM m/54	HGL	+	+	yes	21/31	normal
6	FA f/ 65	WM	+	+	no	62/82	chronic hepatitis
7	GS f/63	LGL	+	+	no	44/31	chronic hepatitis & lymphoma infiltration
8	TA f/70	LGL	+	-	no	68/82	liver cirrhosis
9	IA m/73	HGL	+	-	no	170/184	liver steatosis & lymphoma infiltration
10	MA m/64	WM	+	+	no	17/23	chronic hepatitis

NHL+IgM = Non Hodgkin's lymphoma with monoclonal IgM; HGL = high grade lymphoma; LGL = low grade Lymphoma; WM=Waldenström macroglobulinemia; Transf. = Blood products transfusion.

not recognized on grounds of clinical and laboratory parameters can be histologically demonstrated by liver biopsy. Since no patient in Dr. Musolino's series underwent to liver biopsy, it is possible that the authors underestimated the actual prevalence of liver involvement. In any case, the role of HCV infection (with or without liver involvement) in the genesis of B-cell lymphoproliferative disorders is anything but clear. With few exceptions,<sup>5</sup> epidemiological data from other countries are lacking.

In Italy, we do not know yet whether HCV-related lymphomas are associated with any clinically relevant peculiarity. In the setting of Waldenström macroglobulinemia, it seems that HCV positivity is strongly associated with the response of the hematological disease to alpha interferon.<sup>4</sup> More bench work and clinical inves-

tigation are needed in this extremely interesting field.

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### References

1. Musolino C, Campo S, Pollicino T, Squadrito G, Spataro G, Raimondo G. Evaluation of hepatitis B and C infection in patients with non-Hodgkin's lymphoma and without liver disease. *Haematologica* 1996; 81:162-4.
2. Silvestri F, Fanin R, Barillari G, et al. Prevalence of hepatitis C virus infection in patients with lymphoproliferative disorders. (Abstract) *Blood* 1995; 86 ( suppl.1):S1071, 271a.
3. Ferri C, Caracciolo F, Zignego AL. Hepatitis C virus infection in patients with non-Hodgkin's lymphoma. *Br J Haematol* 1994; 88:392-4.
4. De Rosa G, Gobbo ML, De Renzo A, et al. Virus dell'epatite C e sindromi linfo-immunoproliferative. (Abstract) 35° Congresso Nazionale SIE Pavia-Cernobbio, Settembre 1995, SS28.
5. Desenne JJ, Somoza R, Torres MA, et al. Hepatitis C virus in patients with non-Hodgkin's lymphoma. *Ann Oncol* 1996; 7:(suppl 3)311a.