Systematic review: regression of lymphoproliferative disorders after treatment for hepatitis C infection


CRD summary
This poorly reported review assessed the effects of antiviral therapy in hepatitis C virus-infected patients with lymphoproliferative disorders. The authors concluded that, although large-scale trials are required, existing evidence suggests that interferon (plus ribavirin) may be useful for some hepatitis C virus-related low-grade lymphomas. The evidence was drawn from case reports or case series and appears insufficient to draw any conclusions.

Authors’ objectives
To assess the effects of antiviral therapy in hepatitis C virus (HCV)-infected patients with lymphoproliferative disorders.

Searching
MEDLINE, EMBASE and CINAHL were searched from inception to April 2004, and the Cochrane Controlled Trials Register (Issue 2) in 2004, for reports published in any language; the search terms were reported. The reference lists of selected studies were screened.

Study selection
Study designs of evaluations included in the review
The inclusion criteria for study design were not specified.

Specific interventions included in the review
Studies of antiviral regimens containing alpha-interferon with and without ribavirin were included. Some studies also treated patients with chemotherapy, high-dose corticosteroids, plasmaphoresis and splenectomy.

Participants included in the review
HCV-infected patients with a variety of lymphoproliferative disorders were included. Details of the disorders were reported.

Outcomes assessed in the review
The review assessed remission and regression of lymphoproliferative disorders, HCV cure, disappearance of gastric mucosa-associated lymphoid tissue (MALT), and the association between loss of B-cell monoclonarity and viral response.

How were decisions on the relevance of primary studies made?
The authors did not state how the papers were selected for the review, or how many reviewers performed the selection.

Assessment of study quality
The authors did not state that they assessed validity.

Data extraction
The authors did not state how the data were extracted for the review, or how many reviewers performed the data extraction.
Methods of synthesis
How were the studies combined?
The studies were combined in a narrative.

How were differences between studies investigated?
Differences between the studies were apparent from an examination of the tables presented.

Results of the review
Sixteen case series and case reports were included (n=65). Nine studies were single-patient case reports. Only one study contained more than 10 patients.

There was complete remission of lymphoproliferative disorder in 75% (95% confidence interval, CI: 64, 84) of 65 hepatic C-infected patients given antiviral therapy.

HCV cure associated with disappearance of gastric MALT was reported in 16 of the 18 patients with HCV plus gastric MALT (1 study).

One study found that no HCV-negative patients (number not reported) responded to interferon; in contrast, 7 of 9 HCV-positive patients responded.

A close association was found between loss of B-cell monoclonarity and t(14:18) translocation and virological response in 7 of the 9 patients treated with antiviral therapy (1 study).

Authors' conclusions
Further large-scale trials are required, although existing evidence suggests that interferon (plus ribavirin) may be useful for some HCV-related low-grade lymphomas.

CRD commentary
The review question was clear but the inclusion criteria were not explicitly defined. Several relevant sources were searched and attempts were made to minimise publication and language bias. The methods used to select studies and extract the data were not described, and the authors did not report that study quality was assessed; it is therefore not known whether any efforts were made to reduce errors and bias. The included studies were case reports or case series and these types of studies provide poor-quality evidence. In addition, since some studies included cointerventions, it is uncertain which treatments were responsible for any remissions. The evidence presented was very weak and appears insufficient to draw any conclusions, other than the need for further research which the authors highlight. In addition, the authors did not report using systematic review methods designed to ensure an accurate and unbiased assessment of the evidence, so it is unclear whether this has been achieved.

Implications of the review for practice and research
Practice: The authors did not state any implications for practice.

Research: The authors stated that larger trials of antiviral therapy are required to examine the effects of such therapy.

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Bibliographic details
Record Status
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.