Medical practices and expectations of general practitioners in relation to hepatitis C virus infection in the Auvergne region

Corinne BONNY (1), Romain RAYSSIGUIER (1), Sylvie UGHETTO (2), Bruno AUBLET-CUVELIER (2), Jacques BARANGER (3), Gérard BLANCHET (3), Jacques DELTEIL (3), Philippe HAUTEFEUILLE (3), Françoise LAPALUS (3), Patrick MONTANIER (3), Gilles BOMMELAER (1), Armand ABERGEL (1)

(1) Réseau hépatite C, Auvergne ; (2) Service d'épidémiologie, Hôtel Dieu, Clermont-Ferrand ; (3) Union Régionale des Médecins Libéraux d’Auvergne, Boulevard Lafayette, 63000 Clermont-Ferrand.

SUMMARY

Aims — To determine the medical practices and expectations of general practitioners concerning screening and management of hepatitis C in the Auvergne region.

Methods — A survey was sent by mail to 250 general practitioners. They were then contacted by telephone interviews.

Results — 94% of general practitioners answered the survey. Each physician diagnosed an average of 0.6 new cases of hepatitis C in 1999, and had a mean of 3.2 patients with HCV in their practice. Screening was performed by 91% of general practitioners if there was a history of blood transfusion, by 87% if there was a history of intravenous drug use, by 92% in case of increased serum amino transferase levels. Screening was less frequent in case of household contact and was only performed by 68% general practitioners or of asthenia by 52% of general practitioners.

Liver biopsy seems to be the main obstacle for the management of hepatitis C patients which is due to a refusal of liver biopsy by the patient according to 55% of general practitioners, a fear of complications according to 25% of general practitioners. Sixty percent of general practitioners considered that liver biopsy was performed in less than 50% of patients with hepatitis C.

Fifty three percent of general practitioner thought that hepatitis C network could be useful for increasing their knowledge.

Conclusions — Liver biopsy refusal by the patient restricts the management and therapy of patients with hepatitis C infection. Increase formation still requisite by 60 percent of general practitioner.

The full text of this article is available in English, free of charge, on the Web on: www.c2med.com/ad.

Introduction

In 2000 when this study was designed, the hepatitis C epidemic remained a public health problem despite implementation of hepatitis C networks by hospitals and the general health direction since 1995. The screening rate was an estimated 50% with a relative stability between 1997 and 2000 [1, 2]. In the Auvergne region of France, the number of treatments initiated between 1998 and 2000 has remained stable despite constantly increasing activity of the hepatitis C network and the advent of improved therapeutic efficacy with combination interferon-ribavirin regimens [3]. For us, active participation of all healthcare professionals is the key to improved screening for hepatitis C virus (HCV) infection and patient management. Because of the crucial role played by the general practitioner (GP) for prevention, screening and patient follow-up, we wanted to evaluate their screening and management practices as well as their expectations concerning care for patients with hepatitis C.

Patients and methods

Members of physician unions in our region (URML, Unions Régionales des Médecins Libéraux) and the Auvergne hepatitis C network physicians established a 2-page 10-item questionnaire. In order to establish a representative sample of the 1362 GPs practicing in Auvergne, we selected at random a sample of 250 physicians stratified by department. The questionnaire was sent by mail to these 250 GPs and during the following month, one investigating physician contacted each GP as a reminder or conduct a telephone interview. The number of phone calls ranged from one to four per GP and the duration of interviews varied from ten to thirty minutes. The first part of the telephone interview was used to complete the questionnaire items which were explained if necessary. The GPs were free to comment and sometimes offered further information which was noted but not retained for this analysis. Answers were recorded on a standard chart during the interview then recorded on a computer spreadsheet for analysis. The study was conducted from March to October 2000.

The 250 GPs in the sample population practiced in the different districts of the Auvergne region: Puy-de-Dôme (N = 100, 40%), Allier (N = 50, 20%), Haute Loire (N = 50, 20%) and Cantal (N = 50, 20%). Data concerning the GPs noted on the questionnaire data were: age, gender, district of practice, number of inhabitants in the community where the physician practiced.

Statistical analysis

Data were processed with Epi Info (version 6). Results were expressed as median ± standard deviation for quantitative variables and percentages for qualitative variables. Univariate analysis was applied.

Results

Study population

After being reminded by telephone, 236 GPs answered the questionnaire (94.4% response rate). Fourteen did not respond because they could not be contacted or declined to respond. Mean age was 44.7 ± 5.7 years and 78% were men. Among the 236 responders, 41% practiced in a community with less than 5000 inhabitants, 30% in a community with 5000-
10 000 inhabitants and 30% in communities with more than 10 000 inhabitants.

Screening practices

On average for 1999, each GP had 3.2 HCV-positive patients and diagnosed HCV infection in 0.6 patients. 64.4% of the GPs did not diagnose any case of HCV infection in 1999 (figure 1). Screening tests were ordered for patients with elevated serum aminotransferase levels by 92% of the physicians and for patients with a history of blood transfusion or intravenous drug use by 91% and 87% respectively. For patients presenting asthenia, only 52% of the GPs ordered HCV serology tests. The percentage was 68% for patients who had household contact with a HCV-positive person (figure 2). For patients with other risk factors (hemodialysis, hemophilia, history of endoscopy or imprisonment), 70% of the GPs requested HCV serology tests. Only 1.3% of the GPs never ordered HCV serology for patients in these clinical situations.

The physician’s age did not affect screening practices since there was no significant difference by age for any of the reasons for ordering serology tests studied (history of blood transfusion, intravenous drug use, elevated aminotransferase levels, asthenia). Likewise type of practice (urban, rural) had no effect.

Management of HCV-positive patients

For patients with positive HCV serology, 98% of the GPs ordered serum aminotransferase assay and 31% qualitative assessment of viral load. Seventy-five percent referred their patient to a specialist, a hepatogastroenterologist for 83%.

We attempted to establish an estimate of the proportion of HCV-positive patients who undergo liver biopsy. For the GPs, the estimated proportion of their HCV-positive patients who had had a liver biopsy was 25% (for 31% of the GPs), 25-50% (for 29%), 50-70% (for 14%) and 75-100% (for 26%). Thus for 60% of the GPs, liver biopsy was performed in only 50% of HCV-positive patients.

For the GPs, the reasons why liver biopsies are not performed are related to patient refusal (for 55% of the GPs), physician’s doubt about the efficacy of interferon therapy (for 6% of the GPs), patient’s or physician’s fear of complications (for 25% of the GPs) and another cause (for 29% of the GPs) (figure 3). Among the other reasons for not performing liver biopsy, responses were: absence of indication (40%), follow-up problems due to patient non-compliance (14%), planned biological and clinical follow-up (16%), patient too old (5%), a possible contraindication for treatment (4%).

Comparing the estimated proportion of HCV-positive patients with liver biopsy and the main reason, according to the practitioners, for not performing the biopsy showed that if the patient declined liver biopsy when first proposed, it was finally performed in 25-75% of patients, but if the principal reason was fear of risks, the rate was less than 25%.

Treatment

For 58% of the practitioners, the advent of combination interferon-ribavirin therapy affected their approach; 32% also thought the combination regimens modified patient compliance.

Educational needs

Fifty-five percent of the GPs reported they had had training concerning hepatitis C. Educational needs were however significant since the physicians asked for complementary information. Subjects the practitioners wanted more information about were: new therapies (60% of the GPs), prescription of HCV PCR (60%), nosocomial transmission (50%), horizontal transmission (50%), serology (50%), sexual or mother-infant transmission (44%).

Role of the hepatitis C network

For 53% of the practitioners, the hepatitis C network would be useful for their daily practice. They expected it to keep them up to date (50%), improve collaboration so patients could access care closer to their residence (30%) and improve screening and management practices (20%).
Discussion

For this type of survey, the response rate is generally around 66% [4-6]. For our study, 94% of the general practitioners responded to the survey. This rate was achieved using a mailed questionnaire delivered with an explanatory document than repeated telephone calls so the practitioners could answer orally. Some of the practitioners also completed the written questionnaire after being reminded by phone. All of the telephone interviews were conducted by the same investigator-physician, limiting interpretation bias [7].

The results show that HCV screening practices remain insufficient: 58% of the GPs practicing in the Auvergne region had not detected a single case of HCV infection in 1999 despite the apparently well known risk factors. This insufficiency in screening practices can be explained by the absence of systematic search for risk factors during consultations, as was demonstrated by Shehab et al. [8], and Rotily et al. [5]. HCV serology is recommended for patients with a known risk factor, a non-specific symptom, but few of the practitioners felt it was necessary. Similarly, several studies [9-12] have demonstrated that a notion of nosocomial exposure is a risk factor for chronic hepatitis C which should be searched for systematically. In our study, only 70% of the GPs proposed HCV serology tests for patients with another risk factor such as hemodialysis, hemophilia, or history of endoscopy. The notion of nosocomial risk thus appears to be poorly perceived. More systematic search for these risk factors is needed.

Management practices are also insufficient as was demonstrated by Guignon et al. [2] who found that the number of requests for care remained unchanged between 1997 and 2000. The rates of treatment and liver biopsy remain low, about 12% and 30% respectively [13, 14]. This stability in access to care is disappointing since liver disease-related mortality among HCV-positive patients continues to rise [15, 16] despite the proven improvements in treatment efficacy. In our opinion, access to treatment is limited by the low rate of liver biopsies.

In our survey, 60% of the GPs estimated that liver biopsies were performed in less than half of their patients. Many reasons have been cited for not performing liver biopsies. We analyzed the reasons proposed by the GPs who responded to our questionnaire since the patients were not questioned. Our results show that patient refusal or fear explain why most of the biopsies are not performed. Patient refusal remains a major obstacle. Liver biopsy is an invasive procedure with morbidity and mortality rates to the order of 0.31-1.7% and 0.05-0.33% respectively [17]. With ultrasound guidance, the rate of rare complications should decline [18]. Cadranel et al. [18] evaluated the acceptability of liver biopsy with a visual scale. These authors found that the procedure is relatively well accepted since 91% of patients would accept a second biopsy if needed. On a 10-point scale, pain scored 2.8 ± 2.6, disability 1.9 ± 2.5, and anxiety 3.9 ± 3.4. Better practitioner education could thus improve acceptability of liver biopsy, both for the physician and the patient. Nicklin et al. [19] found that GPs apply recommendation since 82% would propose liver biopsy for patients with elevated aminotransaminase levels. In the present study, it was more difficult to convince the patients since only 55% had a consultation with a hepatogastroenterologist and 27% had a liver biopsy. Our data are however insufficient to determine whether these low rates are related to insufficient physician education, but the widespread request for further training would suggest it is involved. Consultation with a specialist would be important to determine whether liver biopsy is indeed indicated. Moreover, acceptability could be improved by a detailed presentation of the risks and benefits of liver biopsy and the level of sedation could be adapted to the patient’s anxiety [20].

The practitioners who responded to this survey clearly expressed their desire for further training in the field of hepatitis C. Only 54% of them had attended training sessions. Hepatitis C networks could play an important role here. For 47% of the GPs, the main advantage of these networks is to keep them up to date on the latest developments. Babary et al. [21] reported the same type of requests: 51% GPs wanted information about hepatitis C.

These practitioners are well aware that management practices for HCV-positive patients evolve rapidly and desire information about new therapeutic and virological techniques. For 58% of GPs, improved efficacy of combination therapy [3] has greatly changed their therapeutic approach and for 32% also improved patient compliance. The majority of the practitioners (53%) stated they were interested in a hepatitis C network but pointed out that lack of time was an important obstacle. It would be interesting to analyze the effect of this parameter on proper access to education as a determining factor in patient management.

Our survey demonstrated that patient refusal of liver biopsy is frequent, limiting access to treatment. It is thus important to reinforce educational programs for GPs (50% have still not received training on the management of hepatitis C) and better explain the modalities and utility of liver biopsy.

REFERENCES

4. Fowler FJ, Gallagher PM, Stringfellow VL, Zaslavsky AM, Thompson JW, Cleary PD. Using telephone interviews to reduce nonresponse bias to mail surveys of health plan members, Center for survey research, university of Massachusetts, Boston, Massachusetts 02125, USA.


Appendix 1. QUESTIONNAIRE.

This 10-item questionnaire was addressed to general practitioners:

1) In 1999, how many new cases of hepatitis C did you diagnose?

2) What criteria do you use to request hepatitis C serology? (several answers possible)
   — history of blood transfusion
   — history of drug abuse
   — elevated aminotransaminase levels
   — asthenia
   — others (imprisonment, hemodialysis, hemophilia, endoscopy…)

3) After diagnosis, what is your approach? (First-intention specialist consultation? complementary examinations, which ones?)

4) To whom would you refer the patient?

5) How many HCV-positive patients do you have?

6) For your HCV-positive patients, how many have had a liver biopsy? (< 25%; 25 - 50%; 50 - 75%; 75 - 100%)
   Why are liver biopsies not performed? (several answers possible)
   — patient refusal
   — doubt concerning efficacy of interferon
   — fear of complications
   — others (explain)

7) Have new treatments (combination therapy) changed your practices and patient compliance?

8) For further information on hepatitis C, what subjects would interest you?

9) Do you think that a hospital-private practice hepatic C network would be useful for your daily practice? What would be its missions?

10) Have you received specific training on hepatitis C?