OUTCOMES OF CHRONIC HEPATITIS C TREATMENT IN THE INFECTIOUS DISEASES HOSPITAL IASI

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ABSTRACT

Chronic hepatitis C is an important cause of morbidity and mortality due o hepatic disease. **Material and method** The retrospectively studied the evolution of 30 patients with chronic hepatitis C, treated in the Infectious Diseases Hospital of Iasi, with Peginterferon and Ribavirin for 48 weeks. **Results** 18 patients were treated with Peginterferon α2a and Ribavirin, and 12 with Peginterferon α2b and Ribavirin. Most of them (73.3%) were adults, aged between 30 and 50 years, with a sex ratio M/F - 13/17. Most of them had risk factors for the transmission of HCV: 28 of them suffered surgery and 2 of them had infected sexual partners. 3 patients didn't achieve a rapid virusologic response and 6 patients were relapsers. All the other 70% of patients had a sustained virologic response. The side effects were present in all patients, with a moderate intensity. **Conclusion** The success (SVR) rate of antiviral therapy was higher than expected (especially for genotype 1 HCV). The patients with a viral relapse could be soon treated with the new protease inhibitors and hope for a cure.

Chronic hepatitis C represents a major cause of morbidity and mortality through liver disease. The evolution of the chronic infection with hepatitis C virus is variable and sometimes very severe, leading to liver cirrhosis and hepatocellular carcinoma, which are the most frequent indications for liver transplant.

MATERIAL AND METHOD

We performed a retrospective study considering the evolution of 30 patients with chronic hepatitis C admitted in the Iasi Infectious Diseases Clinic, which received combined antiviral therapy with Pegylated Interferon and Ribavirine for 48 weeks.

Before the beginning of therapy, we determined: viral load, ALAT and a complete blood count; the degree of liver fibrosis was determined through liver biopsy or non-invasive tests (fibro scan). The viral load was repeated at 12 weeks of treatment and six months after the end of the therapy.

We took into consideration the adverse haematological reactions of the therapy, represented by: anaemia, leukopenia and/or thrombocytopenia.

RESULTS

Of the 30 studied patients with chronic C hepatitis 18 were treated with α2a Pegylated Interferon (Pegasys®) and Ribavirine (Copegus®) and 12 with α2b Pegylated Interferon (Pegintron®) and Ribavirine (Rebetol®) for 48 weeks, between 2009 and 2010.

The patients were mostly from the urban area (22 cases – 73%), 27 % being from rural areas.

The mean age of these patients was 48

years, varying between 23 and 62 years (Table 1).

The man/women ratio was 0.76 (both sexes were represented almost equally.

From the history of the patients we identified some risk factors for the transmission of HCV. The route of transmission could have been parenteral in 28 cases (93.3%) – surgical treatments were involved in 11 cases (36.66%) and stomatological treatment in 19 cases (63.33%); two patients had HCV infected sexual partners (Table 2).

The value of viral load at the moment of initiating therapy varied between 55.000ui/ml and 6.000.000ui/ml; and the medium values of ALAT was of 125ui/l (between 60 to 200ui/l).

The liver biopsy was done in 80% of the patients and 20% with fibro scan; 52% of these patients being classified with F2 medium fibrosis.

Age (years)	**20-30**	**31- 40**	**41- 50**	**51- 60**	**> 60**
Nr. cazuri	2	10	12	5	1
%	6, 66	33,33	40	16, 66	3, 33

Table 1. Repartitia cazurilor pe grupe de varsta

Rout of transmission	**Surgery**	**Stomatological**	**Sexual**	**Total**
No. cases	Cholecystectomy (6) Fibroma (4) Hernia (1)	19 (dental extraction)	2	30
%	36, 66	63, 33	6, 66	100

Table 2. Factori de risc pentru transmiterea infecţiei cu VHC

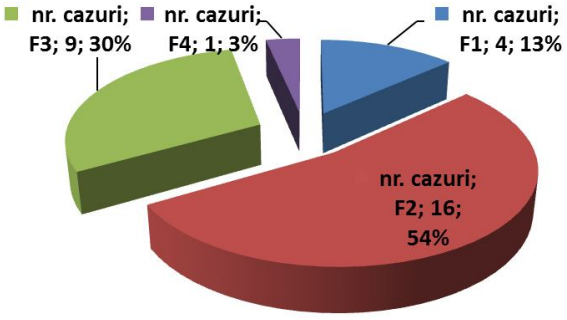

Fig. 1 Patients distribution according to liver fibrosis

Haematologically, 5 patients had already an easy leukopenia at the beginning of treatment and an easy anaemia - 5 patients (13, 33%) and thrombocytopenia 25% of them.

After12 weeks of therapy 82% of the patients had undetectable viral load, and the rest of them had a lower plus 100 times of this value. Only 2 patients were non responders, their viral load at 12 weeks did not go down with more than 2 logs.

ALAT values normalization was obtained in 17% of the cases.

The sustained virusological response (SVR) means undetectable viral load after 6 months after finishing therapy; it was obtained only in 21 patients (70%), the rest of 9 patients being: no responders (3 cases - 10%) or reverters (6 cases - 20%).

In the course of therapy we met important hematologic adverse reactions:

- Thrombocytopenia in 78% of the patients, at the majority >5% manifested from the first months of treatment. The ALAT values varied between 50 to 100.000/mm³. The mean age of these patients with trombocitopenia (52.3 years) was semnificative higher than of those without thrombocytopenia (41.1 years).

Thrombocytopenia determines the lowering of doses of Ribavirine.

- Leucopenia appeared more abruptly in the first 12 weeks of treatment with low values of neutrophils. It was present in 13 cases with moderate values (66.7cases), 3 patients having <2000/mm³. Leucopenia determined lower doses of Pegasys and can be corrected by Filgrastim treatment (in 7 cases).
- Anemia was present in 9 cases and appeared after the 6th - 7th month of therapy, and only in one case being present before treatment.

DISCUSSIONS

In Romania, the big number of the hepatitis C virus infected patients represents an important public health problem, with evolution of the disease to cirrhosis or liver cancer. We can say that the routes of transmission are: surgical and stomatology treatments with insufficient sterilized instruments, together with the sexual one-another transmission route of VHC. The principal aim of the antiviral treatment is prevention of the severe complications, realized by obtaining of sustained viral response (SVR), which means undetectable (RNA-VHC) at the finish of treatment and after 6 months after the end of treatment. Both types of Pegylate Interferon used in treatment (Pegasys or Pegintron) associated with Ribavirine have no differences in therapy results in our study.

The development of new diagnosis methods and new therapeutically strategies determine better response rates to treatment, remaining the problem of no responders patients.

In Romania an important particularity represents the preponderance of the genotype 1 (95.5%) in population, which is resistant to treatment and more predisposed to rebound after the treatment.

The therapy protocol of patients presumes stopping therapy at no responders and continuing therapy to 42 weeks at the responders patients.

CONCLUSION

In our 30 patient study, the success (SVR) rate of antiviral therapy was higher than expected (especially for genotype 1 HCV). The patients with a viral relapse could be soon treated with the new protease inhibitors and hope for a cure.

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