

Dynamics of thyroid function tests during antiviral treatment of hepatitis C.

Nechaeva O¹, Dreval A¹, Matsievich M², Petrachenkova M², Kokina K², Bogomolov P².

Moscow Regional Research Clinical Institute, Department of Endocrinology¹, Department of Hepatology²



Objectives:

to estimate the frequency of changes in thyroid function on the background of antiviral therapy in patients with chronic hepatitis C.

Methods:

The retrospective group consists of 204 patients (mean age $35,5 \pm 8,4$ yrs) with HCV genotype 3a, who took the antiviral therapy course with pegylated interferon and ribavirin during 24 weeks. The patients were divided into 2 groups: 86,3%(176) had a sustained virological response (SVR+), 13,7%(28) did not reach it (SVR-). SVR was defined as undetectable HCV RNA level at weeks 4 - 12. The groups were matched only by sex, because of the mean age of patients with SVR+ was statistically significantly younger ($32,3 \pm 7,2$ yrs) than patients without SVR- ($40,63 \pm 8,66$ yrs). TSH, fT4 and TPO Ab were measured in this group.

	Data before treatment		Data after treatment	
	TSH (mIU/l)	fT4 (pmol/l)	TSH (mIU/l)	fT4 (pmol/l)
SVR+	1.4*	18.6	1.7	13.5
SVR-	2.8*	16.2	2.6	12.6

Results:

In whole group (n=204) 92%(187) subjects had TSH level between 0,4-4,0 mIU/l with normal fT4. 8%(17) subjects had subclinical hypothyroidism and there were no patients with thyrotoxicosis before the treatment. Although absolute levels of TSH, fT4, and TPOAb were not significantly different before and after treatment, however, after course number of people with normal TSH level decreased to 71%(144), and in 29%(60) pts thyroid dysfunction was diagnosed. Most of them became hypothyroid and Grave's disease manifested only in one case. Among 59 hypothyroid pts euthyreosis was restored in 3 months after treatment stop in 90% (53) cases. In pts with normal function tests before treatment (n=66) there was no difference in levels of fT4 in groups with SVR+ and SVR- and there was the significant difference in levels of TSH and TPOAb: the lower the value of TSH and TPOAb was before treatment, the more marked presence of SVR+ was determined.

Conclusions:

Antiviral treatment can cause a statistically significant change in the thyroid function in 29% pts. The levels of TSH and TPOAb before treatment may be a predictor of SVR+. Another study is necessary for confirming this fact.

References:

Contact information dr Olga Nechaeva olga1185@yandex.ru