Table 1. Papers that evaluated the interrelationship between HCV infection and AT

Field of interest	Author	Main findings
Association between HCV infection and AT/or dysfunction	Pateron et al[1]	Increase of latent autoimmune thyroid diseases in patients with chronic hepatitis C
	Antonelli et al[2]	Significant increase of the prevalence has been observed both for thyroid autoimmune disorders (OR= 1.6, 95% confidence interval 1.4-1.9) as well as for hypothyroidism (OR= 2.9; confidence interval 2-4.1) in HCV-positive patients (with chronic hepatitis or HCVAb positivity)
	Antonelli et al[3]	Significant associations among chronic HCV infection, thyroid autoimmunity and hypothyroidism have been revealed. A high prevalence of thyroid cancer has been reported in HCV-positive patients. Chronic HCV infection could lead to the development of type 2 diabetes mellitus, possibly as a result of HCV-induced metabolic disturbances
	Antonelli et al[4]	Patients with CHC were more likely to have hypothyroidism (13%), AbTg (17%) and AbTPO (21%) than were controls
	Giordano et al[5]	Thyroiditis risk is significantly increased in male HCV+ with respect to uninfected patients

AbTg: anti-thyroglobulin antibody, AbTPO: anti-thyroperoxidase antibody, AT: thyroid autoimmunity, HCV: hepatitis C virus, CHC: patients with chronic hepatitis due to HCV infection, OR: odds ratio.

Table 2. Papers that evaluated the interrelationship among HCV infection, MC, TD and AITD

Field of interest	Author	Main findings
Association between HCV infection and development of TD and AITD	Giordano et al[5]	Thyroiditis risk is significantly increased in male HCV+ in comparison with uninfected patients
	Antonelli et al[15]	Higher prevalence of TSH, AbTg and AbTPO levels, and hypothyroidism in HCV+ patients (p <0.001 for all)
Association between MC+HCV and development of TD and AITD	Codes et al[6]	HCV+ patients, genotype 3, develop TD with a prevalence rate of 23.3% (p = 0.05) and MC in 38% of cases (p = 0.02)
	Zarebska-Michaluk et al[7]	HCV+ patients develop AITD with a prevalence rate of 16.2%, and MC in 37.1%
	Castellano et al[9]	Case report of hypothyroidism, hemolytic anemia and cryoglobulinemia in a patient with HCV infection
	Antonelli et al[10]	Higher prevalence of AITD in patients with MC+HCV, not only with respect to controls (AbTPO 28% *vs* 9%, p = 0.001; AbTPO and/or AbTg 31% *vs* 12%, p = 0.004; thyroid autoimmunity 35% *vs* 16%, p = 0.006; subclinical hypothyroidism 11% *vs* 2%, p = 0.038), but also with respect to HCV+ patients without cryoglobulinemia (AbTPO 28% *vs* 14%, p = 0.035)

AbTg: anti-thyroglobulin antibody, AbTPO: anti-thyroperoxidase antibody, AITD: autoimmune thyroid disorders, HCV: hepatitis C virus, HCV+: HCV positive patients, MC: mixed cryoglobulinemia, MC+HCV: HCV-related MC, TD: thyroid dysfunctions, TSH: thyroid-stimulating hormone.

Table 3. Papers that evaluated the interrelationship among HCV infection, MC and thyroid cancer

Field of interest	Author	Main findings
Association between HCV and development of thyroid cancer	Antonelli et al[11]	HCV+ patients develop papillary thyroid cancer with a prevalence rate of 2.2% *vs* 0% among controls
	Montella et al[12]	In patients undergoing surgery for papillary thyroid cancer, the presence of HCV infection is significantly higher than that observed in subjects undergoing surgery for benign disorders, particularly in women
	Montella et al[13]	An association between thyroid cancer and HCV infection is noted with OR 2.8, 95% CI 1.2-6.3, $p = 0.01$
	Giordano et al[5]	No association
	Antonelli et al[14]	Higher prevalence of papillary thyroid cancer in HCV+ patients, in particular in the presence of thyroid autoimmunity
Association between MC+HCV and development of thyroid cancer	Antonelli et al[15]	Higher prevalence of papillary thyroid cancer in MC patients *vs* controls ($p = 0.001$, χ^2 *P* value; $p = 0.02$, Fisher's exact test). In MC patients with papillary thyroid cancer there is evidence of lymphocytic infiltration in the thyroid tissue

95% CI: 95% confidence interval, HCV: hepatitis C virus, HCV+: HCV positive patients, MC: mixed cryoglobulinemia, MC+HCV: HCV-related MC, OR: odds ratio.