Introduction

In Spain up to 2014, approved treatments for hepatitis C, consisted of "bitherapy" (interferon plus ribavirin for genotypes 1, 2, 3, 4, 5 and 6) or "triple therapy" (pegylated interferon, ribavirin and an inhibitor of HCV protease direct-acting antiviral first generation; boceprevir or telaprevir, only for genotype 1 VHC). Triple therapy was a very important turning point in the treatment of chronic HCV infection with a significant increase in the effectiveness of therapy permitting the cure of many patients, but at the cost of many side effects.

Since 2014, a new therapeutic arsenal (DAA) has been used for the treatment of hepatitis C. It aims to provide very high rates of cure in patients infected by any of the 6 types of genotypes and as far as possible, eliminate the interferon treatment regimens for the associated ADRs (heart failure, sepsis, leucopenia, depression, loss of vision, etc). Also, the duration of treatment with interferon and inconvenience posed by needing an injection each week was an important drawback. In many cases, the treatment with interferon was discontinued for these disadvantages and no cure target rates were obtained.

Generally, these new DAA are much more effective and better tolerated than older treatments. The majority of Adverse Reactions (ADRs) reported were mild (grade 1 severity). This does not mean that other more serious ADRs can be associated with these treatments. We present the case of a 74-year-old woman with polyserositis related to these DAA.

Case Report

We present a case of polyserositis as a possible adverse effect of antiviral drug treatment. A 74-year-old woman was diagnosed with hypertension which was treated; with manidipine and irbesartan / hydrochlorothiazide. She also presented with hypothyroidism which was treated with levothyroxine and chronic HCV genotype 1b treated with antiviral ombitasvir / paritaprevir / ritonavir and dasabuvir. After two weeks of antiviral treatment, she came to the emergency room with symptoms of general discomfort, vomiting (especially at the beginning of treatment), weakness, fatique, shortness of breath with progressive worsening, showing edema of lower limbs and a fever that had started a few days prior to her arrival. Upon arrival, she presented as tachypneic with a fever of 38°C and with tachycardia along with other laboratory parameters (hemoglobin: 11: leukocytosis.
(17.70 • 103 / ul. leukocytes). Complementary analytical tests which highlighted hypoxemia (pCO2 = 28 mmHg; pO2 = 41 mmHg pH = 7.49 mmHg) were performed. Other laboratory parameters were: hemoglobin 8 g / dl, hematocrit 34.2%, platelets: 202.0 • 103 / ul; urea: 35 mg / dl; serum creatinine: 0.68 m / dl; Na+: 120m m / L, K+: 4 mM / L). As for cardiac markers, a brain natriuretic peptide value (NT Pro-BNP) of 1355.8 pg / mL was obtained. The HCV RNA was undetectable (<15 IU / mL). A chest radiograph showed bilateral interstitial infiltrate and a transthoracic Echocardiography (Ecott) showed pericardial effusion. Given the clinical picture compatible with poliserositis (simultaneous inflammation of several serous membranes: pleura, peritoneum, pericardium, etc.) as a possible adverse effect to antiviral medication, treatment was terminated and the patient was admitted to the Intensive Care Unit (ICU).

Due to respiratory failure, broad-spectrum antibiotics therapy was started after extraction of cultures and serology. These analyses were subsequently confirmed as negative. The rheumatology department was consulted for a poliserositis study in light of autoimmune disease. Familial Mediterranean Fever (FMF) was ruled out because the patient had no skin lesions nor did she meet the age criteria for onset of the disease. Antinuclear Antibodies (ANA) and anti-DNA were discovered, and 24-hour urine was collected to rule out connective type Systemic Lupus Erythematosus (SLE). Pulse corticosteroids were initiated for 3 days, showing gradual improvement. ANA were observed in 1/160, which were considered insignificant taking into account the personal history of hypothyroidism. Anti-DNA antibodies were negative and proteinuria levels were detected <1 gram in 24-hour urine. She was discharged because ADR was considered as resolved. The patient was asymptomatic without dyspnea or respiratory distress. She had a normal blood count and HCV RNA undetectable (<15 IU / ml), continuing with undetectable HCV RNA undetectable (<15 IU / mL). A chest radiograph showed bilateral pericardial effusion. Given the clinical picture compatible with poliserositis the modified Karch Lasagna [7] algorithm was applied. A score of 6 was obtained, concluding an adverse effect as "Probable". The ADR was consistent over time with drug administration, improving with drug withdrawal. Treatment was not re-administered because the HCV RNA remained unchanged (<15 IU / ml) in all the analytical tests. SVR was achieved after only 2 weeks of antiviral treatment.

**Conclusion**

Our patient presented a picture of poliserositis related to the administration of antiviral treatment, which required hospitalization in the ICU. We consider it very important to report suspicions of this kind, especially when this medication is used for serious disorders, and when the safety profile is not well known.

**References**

5. Imazio M. Undifferentiated systemic rheumatic (connective tissue) diseases and overlap syndromes. Jae K OH. UpToDate. 2014.