Nine year distribution pattern of hepatitis C virus genotypes in Southern Italy

Arnolfo Petruzziello, Anna Cozzolino, Giovanna Loquercio and Samantha Marigliano
Fondazione IRCCS - National Cancer Institute, Italy

**Background:** Different hepatitis C virus (HCV) genotypes exhibit differences in disease pathogenesis and progression, as well as in disease outcomes and response to therapy. Tracking the change of HCV genotypes in various epidemiological settings is critical for both disease surveillance and the development of improved antiviral treatment. Here, we tracked the changes in the prevalence of the distribution of HCV genotypes in Southern Italy in three different periods 2006-2008, 2009-2011 and 2012-2014.

**Materials & Methods:** HCV genotypes distribution was analyzed in 535 HCV-RNA positive patients with chronic HCV infection, observed from 2012 to 2014, and compared with our previous study, which recorded data in the period 2006-2008 and 2009-2011. Pearson Chi-square test and t-test were used to statistically analyze the results.

**Results:** In all the periods analyzed, genotype 1 is predominant, even if its prevalence decreased from 2006 to 2014 (64.3% in 2006-08, 62.4% in 2009-11 and 60.8% in 2012-14). On the contrary, in the same period, the genotype 2 prevalence increased (27.9% in 2006-08, 31.7% in 2009-11 and 35.2% in 2012-14), whereas genotype 3 seems to show a decrease during the time (6.8% in 2006-08, 4.7% in 2009-11 and 3.2% in 2012-14). Subtype 1b, particularly common in females compared to males in the past (64.3% vs. 39.3% in 2006-08, p<0.001 and 54.0% vs. 41.5% in 2009-11, p<0.05), seems to be now quite equally distributed between males and females (52.7% vs. 56.6%). Instead, the male/female ratio for genotype 3 is highly decreased from 2006 to 2014. The prevalence of patients with genotype 1b in the age range 31-40 years is significantly higher in the 2012-14 period than in both previous periods (53.8% vs. 16.6% in 2009-11, p<0.001 and 13.4% in 2006-08, p<0.001) and lower in the over-60-year-olds (57.9% vs. 59.6% in 2009-11).

**Conclusions:** Genotype 1b, historically the most prevalent in Southern Italy, is still predominant; however, when comparing the three time periods, genotype 2 seems to show an increase in the general population not related to age or gender, whereas genotype 1b, even if the most common in the elder population, shows a significantly increase in the under 40 years old population.

a.petruzziello@istitutotumori.na.it

---

Hand grip strength as a nutritional assessment tool in patients with liver cirrhosis

A Elmeligui, S Mogawer, S Elkholy, M Mansour and R Elmessiery
Cairo University, Egypt

**Background:** Protein calorie malnutrition (PCM) has been described in 50 to 100 percent of patients with decompensated cirrhosis and at least 20 percent with compensated cirrhosis. PCM is associated with many complications including development of variceal bleeding and ascites, increased surgical morbidity and mortality, reduced survival and worsening hepatic function. Yet, there is no gold standard method for nutritional assessment of these patients up till now.

**Participants & Methods:** This is a case control study that was designed to analyze data from 78 Egyptian patients with child C liver cirrhosis. Subjective global assessment (SGA), anthropometric tools, hand grip strength (HGS) were used to assess the nutritional status of these patients. It also included 50 healthy volunteers with matched age, gender and area of residence.

**Results:** Severe PEM was prevalent among the patients; HGS was highly correlated to the degree of malnutrition (p-value=0.008). ROC curve analysis showed a criterion of 17.6 with specificity 90% and sensitivity of 60%.

**Conclusion:** PEM is prevalent among patients with cirrhosis. Nutritional assessment in decompensated patients remains a challenge for clinicians. HGS is a simple, bed side tool that can be used to assess the muscle status and can be used in a complementary manner with other methods for proper assessment of the patients.

ahmed.elmeligui@kasralainy.edu.eg