ISPOR 16th Annual European Congress
Dublin 2 - 6 November 2013

HEPATOCELLULAR CARCINOMA: AN EPIDEMIOLOGICAL AND MANAGEMENT SURVEY-BASED ANALYSIS IN ITALY

Americo Cicchetti[1], Antonio Gasbarrini[2], Matteo Ruggeri[1], Dario Sacchini[2]
on behalf of WEF study group
[1] Faculty of Economics, Catholic University of Sacred Heart, Rome, Italy
[2] Faculty of Medicine, Catholic University of Sacred Heart, Rome, Italy

BACKGROUND

After two year dealing with hepatitis, the third edition of the Workshop in Pharmacoeconomics (WEF) in hepatology aimed to analyze the burden of the consequences of hepatitis. Among End-Stage Liver Diseases (ESLDs), hepatocellular carcinoma (HCC) is the most critical: besides being the fifth tumor in men and the seventh in women, it is the first cause of death in compensated cirrhosis patients. Italy is ranked as an intermediate risk area, nevertheless shows the highest incidence across European Countries according to a recent Technical report by the European Centre for Disease Prevention and Control (ECDC).

OBJECTIVES

This analysis aimed to verify how HCC management is carried out in Italy and to point out the organizational key variables useful for an economic assessment, considering that HCC is the final and highest cost health state along the natural history of liver diseases.

METHODS

A questionnaire was set up jointly by clinicians (hepatologists and infectivologists), pharmacoeconomists and HTA experts, and submitted to centers in order to collect epidemiology and management data. The survey consisted of a series of questions regarding HCC patients: gender and age, HCC etiology, BCLC (Barcelona Clinic Liver Cancer) staging at diagnosis, current treatments, hospitalization regimens, number and description of diagnostic/outpatient procedures, other relevant concurrent pathologies. The survey was administered to patients in four Italian centers of excellence for liver diseases with well-established experience in treating HCC patients. Collected data were finally compared to data from the national database ITA.LI.CA. (around 1.100 inputs).

RESULTS

596 questionnaires were collected, the majority of which regarding male patients (79%), with a mean age of 67. Etiology proved to be mainly HCV-related (56%) and most patients underwent full hospitalization (81%) with a mean duration of 16.5 days (Table 1), with a wide variability among centers, concerning both diagnostic procedures (CT, MRI, ecography…) and treatments (surgery, liver transplantation, pharmacology).

Table 1

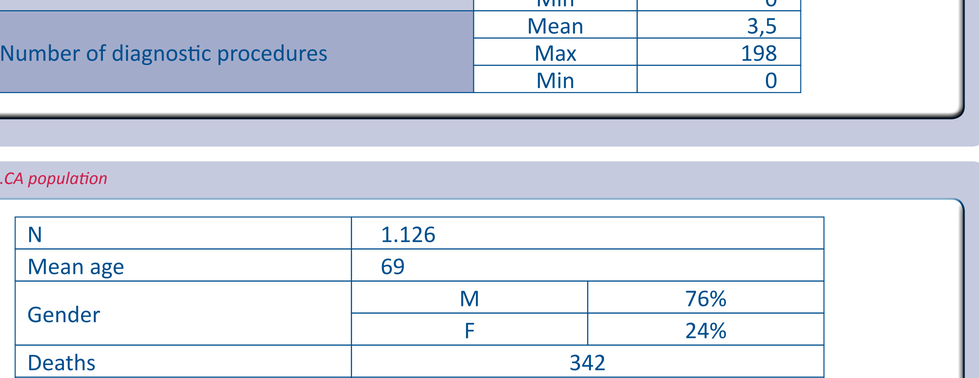
N	596	
Mean age	67,3	
Gender	M	79%
	F	21%
Worker	Yes	7%
	No	93%
Etiology	HCV	56%
	HBV	12%
	Alcohol	11%
	Other	12%
Treatment (hospitalization) regimen	FH	81%
	DH	19%
Hospitalization (days)	Mean	16,5
	Max	148
	Min	0
Number of diagnostic procedures	Mean	3,5
	Max	198
	Min	0

Table 2 - ITA.LI.CA population

N	1.126	
Mean age	69	
Gender	M	76%
	F	24%
Deaths	342	
Drop out	96	
Etiology	HCV	52%
	HBV	13%
	Alcohol	25%
	Other	11%

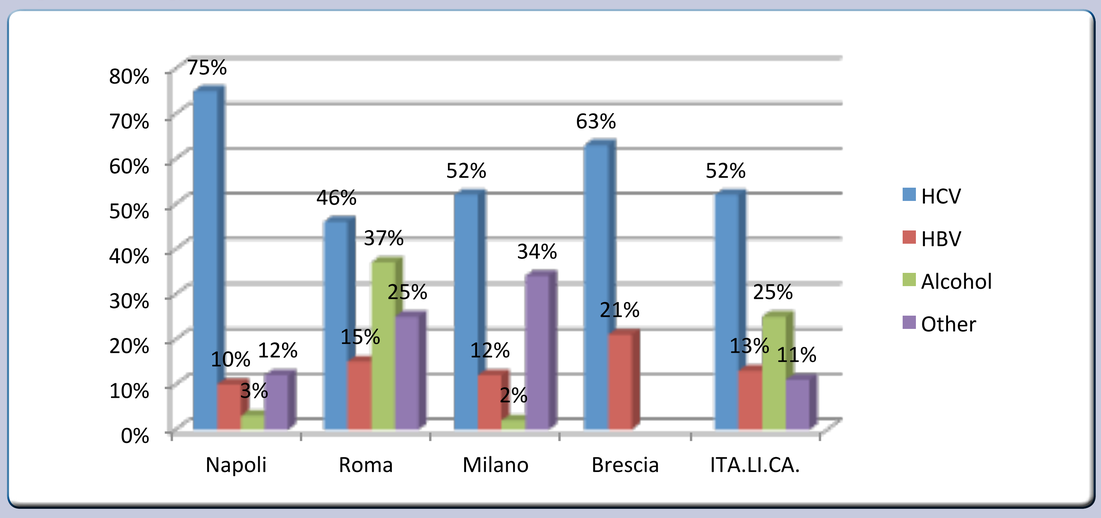
The comparison of the collected data with data from ITA.LI.CA. (Table 2) shows that many characteristics coincide: the mean age is high (67 vs. 69), the majority of patients are male (Figure 1), the main etiology is HCV. These results are consistent with published literature, confirming that the most frequent cause of HCC in Italy is HCV (about 70%), even if considering each single center separately.

Figure 1. Gender distribution



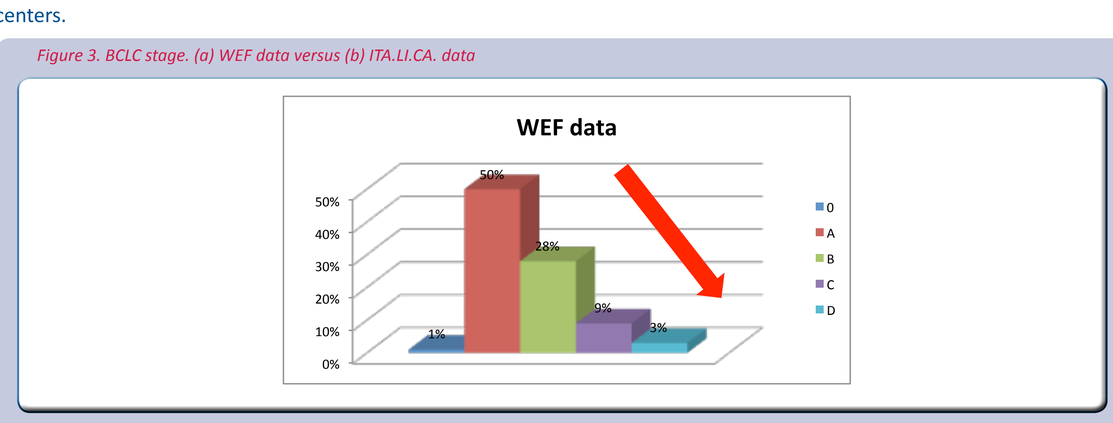
The prevalence of other causes of HCC on the contrary differ from center to center, according to different factors and dynamics of the population (Figure 2).

Figure 2. HCC etiology distribution



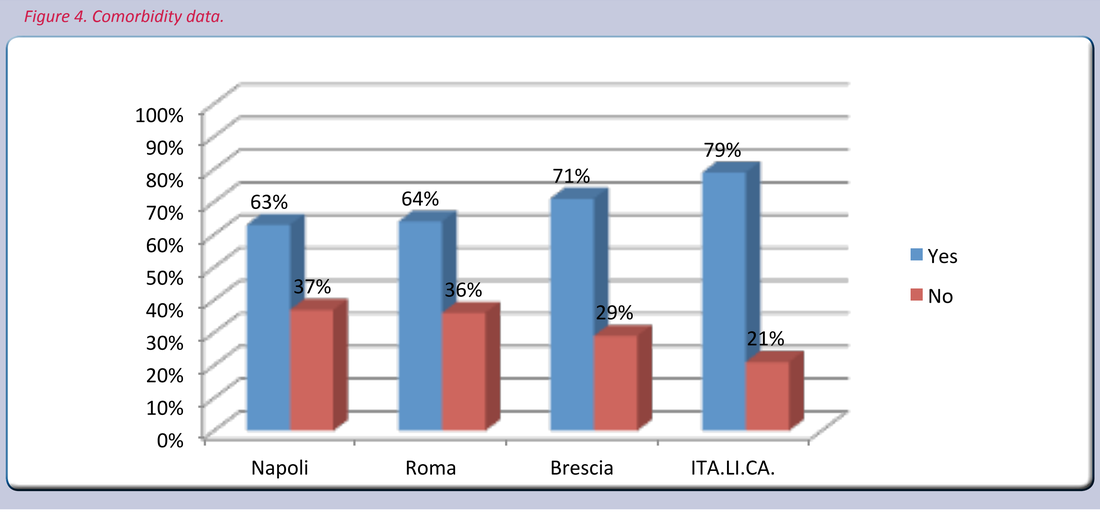
Also the mean duration of hospitalization shows a certain heterogeneity among centers: from 8 days in Milan, up to 37,4 days in Rome.
Concerning the BCLC stage, from WEF data only 1% of patients were staged 0, while the 58% were A. Apart from the stage 0, the trend between WEF centers and ITA.LI.CA. is very similar (Figure 3a and 3b), even if heterogeneity is present among single centers.

Figure 3. BCLC stage. (a) WEF data versus (b) ITA.LI.CA. data



Comorbidities data too are consistent with ITA.LI.CA. database (66% vs. 79%) and also show homogeneity among centers (Figure 4), with hypertension, hypercholesterolemia, atherosclerosis and cardiopathies mainly represented.

Figure 4. Comorbidity data.



Regarding diagnostic procedures, data shows a wide heterogeneity among centers, with abdominal ultrasound and computed tomography scan being the most prescribed procedures.
Also treatment options widely vary among centers and compared to ITA.LI.CA. database.

CONCLUSIONS

Beside a consistency of WEF collected data with the national database ITA.LI.CA. concerning HCC epidemiology, a major heterogeneity was observed about diagnostic procedures and treatment options administration. This analysis proved to be very helpful in describing the current situation regarding HCC in Italy. The wide variety of situations among centers may be explained as an effect of the deep regionalization process the National Healthcare Service in Italy has been subjected to in recent years. According to the results of the analysis, it is problematic to assess the prescriptive appropriateness of procedures and treatments and it would be desirable to set up a dedicated database/registry to uniform the whole Country. To allow a correct and traceable management of HCC, the WEF group recommends a clinical and organizational integration, according to the multidisciplinary hospital-based contest of the pathology.

3P SOLUTION s.r.l. MILAN - ITALY
www.3psolution.it - info@3psolution.it
+390236631574