

The Burden of Hepatobiliary Diseases in Portugal: What Can We Learn from Mortality Data?

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Keywords

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A importância das doenças hepatobiliares em Portugal: que lições retirar dos dados de mortalidade?

Palavras Chave

Doença hepática alcoólica · Cirrose hepática · Carcinoma hepatocelular · Mortalidade por doenças hepatobiliares · Importância das doenças hepáticas

Liver disease is a major cause of morbidity and mortality, accounting for approximately 2 million deaths per year in the world, one million from complications of cirrhosis and another million due to viral hepatitis and hepatocellular carcinoma (HCC) [1].

In the past 30 years there has been major progress in the knowledge and management of liver disease, yet approximately 29 million persons in the European Union still suffer from a chronic liver condition [2]. The eco-

nomic impact is also high, and quality of life indices are low in patients with chronic liver disease [3, 4].

The incidence and prevalence of cirrhosis and primary liver cancer are key to understanding the burden of liver disease. They represent the end stage of liver pathology and thus are indicative of the associated mortality. Liver cirrhosis is responsible for around 170,000 deaths in Europe annually, with wide variations between countries – ranging from about 1 per 100,000 Greek women to 103 per 100,000 Hungarian men dying each year [2].

Rocha et al. [5] publish in this issue of *Portuguese Journal of Gastroenterology* a study on liver disease-related mortality in our country between 2006 and 2012. During these 7 years there were 18,279 deaths (24.5 per 100,000) from hepatobiliary disease registered in Portugal, constituting the 8th leading cause of death. The main causes of death from hepatobiliary disease they found were alcoholic liver disease (7.1 per 100,000), unspecified cirrhosis of the liver (5.5 per 100,000), and HCC (4.3 per 100,000), with a male predominance (72%). Alcoholic liver disease was the main aetiology in younger age groups (40–65 years), while primary neoplasms of the liver and the intrahepatic bile ducts were predominant in the elderly (>80 years). Mortality related to HCC increased by 66% between 2006 and 2012.

Comparing these results with those we reported in a paper entitled “The Importance of Chronic Liver Disease in Portugal” [6], there are clear similarities. In 1996, chronic liver disease was also the 8th leading cause of death, with a death rate from cirrhosis of 23.9 per 100,000. In our study, data were also provided by the National Statistics Institute according to cause (International Classification of Diseases, 9th revision), but only chronic liver disease and cirrhosis were considered, excluding hepatobiliary tumours.

In both studies mortality was higher in males (>70%), and in mainland Portugal mortality was higher in the north and centre of the country compared to the south (low rates especially in Alentejo). Alcoholic liver disease is the main cause of death from hepatobiliary disease and is related to the pattern of alcohol consumption in our country as well in others in Europe [7].

The increase in mortality from HCC reported in Rocha et al.’s paper [5] agrees with others from areas with historically low rates, including parts of Oceania, Western Europe, and North America. In the United States, the age-adjusted incidence rates of liver cancer more than tripled between 1975 and 2011 [8].

In the EU27 in 2008, the incidence of liver cancer was 10.6 and 3.6 per 100,000 persons for men and women, respectively [9]. For males, the highest incidence was in Italy and the lowest in the Netherlands [9]. Unlike other cancers, the mortality rate is very close to the incidence rate because of the very low associated survival. The Portuguese data now presented suggest, as the authors mention, that Portugal is among the European countries with the highest mortality from HCC.

HCC is strongly associated with chronic hepatitis B virus (HBV) or hepatitis C virus (HCV) infections and with other risk factors, including alcoholic cirrhosis (that represents more than 80% of liver cirrhosis in our country), smoking, type 2 diabetes, and/or nonalcoholic fatty liver disease (associated with obesity).

Almost all causes of liver diseases can be prevented through public health measures, including limitation of alcohol consumption, HBV vaccination, sanitary medical practices, healthy lifestyle choices, smoking avoidance, and environmental management strategies.

The study published in this issue of *Portuguese Journal of Gastroenterology* underlines the substantial burden of liver disease-associated mortality in Portugal, at least comparable with other diseases that are considered to be of major public health concern, and that governments and healthcare providers must tackle liver disease in a much more proactive fashion, conceiving and implementing strategies that will ameliorate this problem and save lives.

In Portugal, HBV vaccination and a hepatitis C treatment program are examples of a good strategy to improve the burden of liver diseases. Unfortunately, other key measures, such as fighting against excessive alcohol consumption or the implementation of a comprehensive national strategy for liver diseases, are still lacking.

Disclosure Statement

The author has no conflicts of interest to declare.

References

- 1 Mokdad AA, Lopez AD, Shahrz S, Lozano R, Mokdad AH, Stanaway J, Murray CJ, Naghavi M: Liver cirrhosis mortality in 187 countries between 1980 and 2010: a systematic analysis. *BMC Med* 2014;12:145.
- 2 Blachier M, Leleu H, Peck-Radosavljevic M, Valla DC, Roudot-Thoraval F: The burden of liver disease in Europe: a review of available epidemiological data. *J Hepatol* 2013;58:593–608.
- 3 Stepanova M, De Avila L, Afendy M, Younossi I, Pham H, Cable R, Younossi ZM: Direct and indirect economic burden of chronic liver disease in the United States. *Clin Gastroenterol Hepatol* 2017;15:759–766.e5.
- 4 Onakpoya IJ, Heneghan CJ, Aronson JK: Post-marketing withdrawal of 462 medicinal products because of adverse drug reactions: a systematic review of the world literature. *BMC Med* 2016;14:10.
- 5 Rocha MC, Marinho RT, Rodrigues T: The mortality associated with hepatobiliary disease in Portugal between 2006 and 2012. *GE Port J Gastroenterol* DOI: 10.1159/000484868.
- 6 Simão A, Porto A: The importance of chronic liver disease in Portugal. *Rev Gastroenterol Cir* 1998;75:1–12.
- 7 Mäkelä P, Gmel G, Grittner U, Kuendig H, Kuntsche S, Bloomfield K, Room R: Drinking patterns and their gender differences in Europe. *Alcohol Alcohol Suppl* 2006;41:i8–i18.
- 8 Howlader N, Noone AM, Krapcho M, Garshell J, Miller D, Altekruse SF, Kosary CL, Yu M, Ruhl J, Tatalovich Z, Mariotto A, Lewis DR, Chen HS, Feuer EJ, Cronin KA (eds): SEER Cancer Statistics Review, 1975–2011. Bethesda, MD, National Cancer Institute, 2014. https://seer.cancer.gov/archive/csr/1975_2011/.
- 9 Ferlay J, Parkin DM, Steliarova-Foucher E: Estimates of cancer incidence and mortality in Europe in 2008. *Eur J Cancer* 2010;46:765–781.