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EDITORIAL

PALLIATIVE MEDICINE - BEYOND ADVANCED CANCER CARE

Nowadays, medicine has the same value and meaning, and is answerable to the same formidable requirements it has always been. Medicine must soothe, heal, prevent and limit the spread of disease. A physician has the opportunity to live inspiring moments while brings the very sick patients again to life and these rare moments will uplift him in the most difficult situations. In some specialties, such moments could repeat more often as in surgery, emergency medicine and sometimes in cardiology or neurology. In the majority of time, the practicing physician has to deal with chronic diseases, some of them which aggravate and complicate itself, ultimately conducting to organ failures and a very poor quality of life. Moreover, due to the success of medicine in preventing some diseases, in treatment of infectious diseases and in effective treatment of ischemic heart disease, diabetes mellitus etc. people live much longer, and experience new problems related to advanced age (1). Death, the termination of life is seen as a disease and drained by any spiritual meaning. Twenty-one century medicine is dealing with termination of life problems, with the emerging "assisted suicide" solution for the difficulties related to advanced diseases and advanced age and with a huge pressure on health system done by chronic advanced diseases with low quality of life and disability (2). New rules, new laws, new concepts are required to respond to new approaches and needs. A different health system organization is needed.

An example of a disease which needs a new approach is decompensated liver cirrhosis.

Cirrhosis represents the final irreversible stage of chronic progressive liver disease. The patients' prognosis depends on etiology, comorbidities, and especially stage and complications (3). Cirrhosis stages are classically seen as: compensated and decompensated, the last one being defined by the occurrence of complications as: ascites, spontaneous bacterial peritonitis, hepatorenal syndrome, jaundice, upper gastrointestinal bleeding by variceal effraction, hepatic encephalopathy (4). Other complication which may darken the prognosis of cirrhotic patients is hepatocellular carcinoma, often diagnosed in advanced stage. „End-stage liver disease" is another term used to describe advanced liver diseases stage, characterized by chronic liver failure, and decompensated cirrhosis, just to emphasize the irrevocable severe course of the illness and the inevitable somber lethal outcome.

However, liver transplantation emerged as an outstanding cure for patients with advanced cirrhosis, ensuring lifesaving, life prolongation and also regain of life quality. There are well-defined classification systems, which aim to objectively establish the indication for liver transplantation for each individual patient with cirrhosis. The MELD („*Model for End-Stage Liver Disease*") score, able to predict prognosis of cirrhotic patients, has been officially adopted by United Network for Organ Sharing and Eurotransplant as a tool for

prioritizing patients awaiting liver transplantation (5). Using MELD score (which takes into account serum bilirubin, serum creatinine, and the international normalized ratio for prothrombin time), patients are assigned a score from 6 to 40, which correspond to estimated 3-months survival rate of 90% to 7%, respectively (6). Patients with MELD scores 15 or greater are considered candidates for liver transplantation, while patients with lower values are considered as having a better prognosis without. Still, patients with cirrhosis may present important serious complications, which are not always reflected by a high MELD score, but which equally negatively affect their survival rate. For instance, spontaneous bacterial peritonitis or variceal hemorrhage due to portal hypertension, are poor prognostic indicators.

Undoubtedly, liver transplantation is a potential definitive curative treatment for advanced liver disease. However, decompensated cirrhosis remains a disease with variable prognosis and unpredictable outcome. Even with the hope of liver transplantation, patients are at risk for adverse outcome, with, generally, an average survival without liver transplantation of approximately two years (7). Many patients on the waiting list die, with an estimated percentage of 15% annually (8), while, usually, another 10% are delisted in the same year due to worsening of their condition (9). Additionally, liver grafts are limited, and the number of patients needing liver transplantation exceeds the organ availability. Moreover, liver transplantation is not a *panacea*, as many patients are not candidates, due to comorbidities, or being "too sick" to be transplanted, or precluded by social factors.

Thus, palliation should not be limited to end-of-life care but provided throughout the entire trajectory of illness. Palliation should not be understood (only) as care measures offered to patients at the end of life, having as main aim the sufferance relief, but as maximal life-prolonging therapeutic actions, including curative approach of complications.

Contrary to appearances, palliative care and liver transplantation are not mutually exclusive. In fact, keeping the end-stage liver disease patient alive enough and well enough to be transplanted, is the key for cure. Providing supportive care for patients with complications needing transplantation may be the redeeming quality to survive until liver transplantation.

However, hospital readmissions in patients with decompensated cirrhosis, as well as their hospital lengths of stay are challenging matters. Readmission rates of cirrhotic patients vary depending on the follow-up duration and the studied population, different studies showing early readmission rates, defined by another hospitalization due to an acute situation within 30 days of the index hospitalization, from 20% to 50% (10,11). Readmission rates increase with the duration of the follow-up period, and the main reasons for early readmission appear to be specific complications as hepatic encephalopathy, variceal bleeding, or infections, as showed by one of our studies regarding predictive factors for the prognosis of alcoholic liver cirrhosis (11). Prolonged length of stay is also an issue in cirrhotic patients' care, representing a supplementary burden for hospitals, especially for those designated to function as emergency units.

Nonetheless, for patients in terminal end-of-life stage, as advanced end-stage liver disease and hepatocellular carcinoma with Barcelona Clinic Liver Cancer stage D

tumor (12), the care will be primarily focused on comfort and alleviating suffering and pain. Hospices are dedicated institutions aiming to assist terminal life stages, targeting comfort and quality of life.

Thus, throughout the entire trajectory of the illness, a dynamic process of identification of patient-centered goals of care is compulsory and of utmost importance. Along evolution, as long as liver transplantation is still an option, management must be centered on life-prolongation measures, complication treatment and preventions strategies for further decompensation, while comfort ensuring will be prioritized as strategy of end-of-life care. However, there are still gaps in defining end-of-life criteria, as long as prognosis and life expectancy in cirrhosis are not precisely predictable.

As physical deterioration and psychological suffering coexist in advanced liver disease, symptoms control and psychical needs are both equally important targets to consider. Healthcare services should offer not only physical medical care, but also mental and social support, towards patients and also their families.

Appropriate palliative care in advanced liver disease is a decisive determinative factor for patients' outcome, in terms of life and death, literally. This fact, as well the need to offer the optimal tailored assistance, was understood properly in the recent years by all the caregivers, and the interest in palliation in cirrhosis is growing.

Therefore, adapted strategies should be wisely adopted for every patient with liver cirrhosis, in order to obtain both prolongation and quality of life. Understanding each individual cirrhotic patient's needs, rethinking care strategy and, if needed, restructuration of hospitals, defining special care units, might be the key issues to ensure the best end-stage liver disease care.

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