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Editorial

Impact of Economic Crisis and Covid-19 on the Cardiopulmonary Rehabilitation Program in Lebanon: A Short Communication

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Background

Since the end of the war in 1990, extensive efforts have been made in Lebanon to revive the economy and rebuilt the national infrastructure [1]. However, 30 years after the Lebanese civil war, the socio-economic situation in the country seems as bad as ever. Today, Lebanon is struggling to survive both an economic and political crisis, the Covid-19 pandemic and the consequences of the blast few months ago. The Lebanese are injured from the bottom of their heart.

On August 4th, the double tremendous blast in Beirut shook the world. It was described as a mini-Hiroshima bomb and the third most important explosion worldwide, leaving more than 200 deaths, thousands more were injured and more than 300.000 persons without home [2-3]. Lebanese people are still struggling to overcome the stress and to manage to survive. The government is unable to address the disaster situation and to manage the economic crisis, which has negative impacts at all levels of society. Economic calamities, massive unemployment among the population and the currency, the Lebanese pound loosing over than 60% of its value in less than a year, are some example issues. Lebanon has the third largest debt to GDP ratio worldwide. The tragedies in the country mean that basic service needs are largely unmet, this includes poor access to water and electricity, e.g., electricity was cut off several times a day, accumulation of trash but above all poor access to health care in the country [4].

Lebanon has 105 private hospitals versus 20 public hospitals [5]. Health care is largely private in Lebanon. Social security covers about 40% of population. The remaining population is covered either by the health scheme of Armed forced (infernal security forces) or by a health scheme which is called Cooperative of Public Employees for public servants5. Private health insurance does exist; however, it is not well developed and covers only about 12% of the total population. Part of the population does not have this kind of insurance, but is covered up to 85% of the cost by the Ministry of the Public Health for treatment in public hospitals [6]. After discharging from hospital, either private or public, patients who need rehabilitation require a prescription from a healthcare provider to have access to a rehabilitation program and to be covered by the national security or health insurance scheme [7].

The Cardiopulmonary Rehabilitation Programme (CPR) in Lebanon

CPR was recently implemented in two medical establishments, one in Beirut West and another in Mount Lebanon [8]. Nevertheless, the referral of patients to pulmonary or cardiovascular rehabilitation by healthcare providers remains irregular and limited. This is due to several barriers, which have been evidenced in studies among cardiologists, cardiac surgeon, pulmonologists, physiotherapists and student in physiotherapy.

In Lebanon, phase II (outpatient phase starting after discharge) and III (outpatient phase of stabilisation and maintenance of gain at cardiopulmonary function) of CPR are non-existent. This is due to several reasons. First, the civil war has made musculoskeletal and neurological rehabilitation the first level of priority over cardiopulmonary rehabilitation. Second, primary health care providers do not refer or refer very few patients to a physiotherapist for cardiopulmonary treatment. Physicians are hardly aware of the existence of CRP according to a national survey. Studies have found a lack of specializations and training in in the field [9]. Another barrier is the lack of reimbursement by the state and/or by the insurance due to the lack of funds. Other barriers to add are the impact of the economic crisis that began in October 2019 in the country and the Covid-19 pandemic.

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A survey on cardiovascular rehabilitation was conducted among cardiologists and cardiac surgeons in Lebanon in December 2018 and findings showed financial barriers to enrol patients and barriers related to the cost of the program and to the professional skills of healthcare providers. Another survey was conducted among chest physicians in October 2018 and results showed barriers to entry to CPR, as well as inadequate referral procedures and lack of skills and specialists in the field. In addition, during the national physiotherapy annual meeting in October 2019, a survey was conducted among physiotherapists and physiotherapists students and results showed support for the CRP implementation. Barriers to CPR have highlighted the lack of skills and training in this domain among medical specialists [10]. A special request from physiotherapists was to have more education and training in cardiopulmonary rehabilitation. But hitherto, this specialty is neglected in universities in the country. This is a drawback since there is a need to improve care for patients with cardiopulmonary diseases and above all for phase II and III of Covid-19 patients. Phase II and III are fundamental after a stay in hospital and above all in ICU for patients suffering from respiratory diseases and from Covid-19 today. Thanks to this revalidation, patients can gain back their cardiopulmonary function and motricity capacities. Patients, post Covid-19, can have a better quality of life and can be healthier.

Covid-19 and the CRP

In August 2020, 5951 Covid-19 cases have been reported by the WHO in Lebanon, of which 70 have reportedly died. Even nearly 2 years later, contaminations by corona virus are still increasing, hospitals are fully booked and are refusing patients suffering in need of intensive care. The major problem was the insufficient places in hospitals and Intensive Care Unit (ICU). The virus is still spreading at present even after many lockdowns. Even outpatients in need of oxygen therapy or ventilation support (CPAP, BIPAP, NIV) need to find the machine in the black market with very high prices and in US dollars currency. As an extremely contagious respiratory disease with the new variants, Covid-19 infection can cause respiratory, cardiac, physical and psychological dysfunction in patients. Alterations of lung tissue may progress in more than 80% of patients.

International experts in rehabilitation suggested that like in acute respiratory distress syndrome (ARDS) patients, after a long stay in ICU, Covid-19 patients intubated and ventilated with respiratory distress, acquired weakness associated with poor and long-term outcomes. Cognitive impairments, including depression and post-traumatic-stress disorder, were found in ARDS patients post ICU stay from 70% to 100% of the cases at discharge and in 20% of the cases even 5 years later. Therefore, a global call for action is needed from the rehabilitation community. Patients in Lebanon who undergo a long stay at ICU and many other Covid-19 survivors need to enrol into a CRP and need a long term follow up. CRP is crucial for both admitted and discharged patients. Following the acute phase of Covid-19, a huge number of patients should be referred early to rehabilitation programs starting in hospital in Phase I. Also, further empirical evidence is required to know what kind of rehabilitation program a post Covid-19 patient needs. We know that home-based supervised programs by a professional rehabilitation team could be more adequate than an unsupervised program.

Follow-up treatments are missing and needed in Lebanon. Home-based telehealth programs provide better follow-ups treatment and are cost-effective. In addition, home-based telehealth delivery is safe form for patients in need to avoid covid-19 contagious. A low-cost Home-based program via telemedicine is highly appropriate for Lebanon due to barriers to access and in view of the economical-crisis. A tailored-made program also leads to "traceability for the covid-19 patients" post discharge from hospital which is missing at present. Home-based rehab in phase II and III for Covid-19 patients will be indispensable to regain quality of life and to increase the loss of the motricity and cardiopulmonary function.

CRP and a follow up rehabilitation program are needed for Covid-19 survivors in Lebanon. Hospitals could start informing patients at discharge so that patients get to know the benefits of physiotherapy and rehabilitation. To give the patient maximum autonomy, increase muscular strength, and cardiopulmonary function, and to increase quality of life of the survivors of Covid-19, patients need to have follow-ups and rehabilitation treatment at home. The challenge is threefold for Lebanon, which is facing the impact of political and economic crisis in the last year, as well as the consequences of COVID-19 and the blast 6 months ago. A rehabilitation center in Beirut started to offer "free general physiotherapy and rehabilitation program" post blast for injured people.

Recommendations

After the blast and during the covid-19 lockdown, general and specialization healthcare (primary healthcare) consultations have been suspended to secure beds for the treatment of Covid-19 patients and for injured patients post blast. Secondary prevention and healthcare interventions like rehabilitation programs have been postponed, as a results of physical distancing recommendations designed to flatten the Covid-19 pandemic curve. Prolonged reduced access to CRP could result in a delay of care delivery and could increase the mortality rate. Another challenge will be the opening of the CRP virtually with the help of home-based telemedicine to overcome barriers to access to healthcare due to the Covid-19 pandemic and the economic and political crisis in the country. This virtual cost-effective home-based rehabilitation delivery should offer similar patient outcomes and safety levels for low to moderate risk cardiopulmonary patients. This new approach to rehabilitation could be implement in low-middle income countries during covid-19 pandemic and will meet the recommendations of WHO 2030 rehabilitation meeting.

Conflicts of Interest

All Authors have no conflicts of interest and have no disclosure of findings. All of the authors have read and approved the manuscript.

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