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RESEARCH ARTICLE

EFFECTS OF COVID-19 PANDEMIC ON URGENT CARDIOVASCULAR ACTIVITIES AND PATIENT'S CARE IN NORTH AFRICA: EXPERIENCE FROM MOROCCO

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Abstract

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Introduction:-

COVID-19 is an infectious viral disease, with high transmission capacity and long-term viral stability on contaminated surfaces. Since December 31, 2019 when the first case of COVID-19 infection has been declared, this disease has been responsible for several thousands of deaths and it has become pandemic with more than 10 million confirmed cases worldwide, the clinical presentation is very variable and ranges from a totally asymptomatic subject to a severe respiratory distress syndrome requiring management in the intensive care unit.

In the absence of effective treatment proven to date for the COVID-19 disease, and in front of its very rapid evolution, the implementation of lockdown and related measures with social distancing has been recommended as a tool of infection prevention in this context. However, the lockdown and related measures such as reorganization of the care system, the recruitment of doctors to serve patients with COVID-19, the postponement of non-urgent medical consultation appointment, the saturation of city medicine, and hospital and pre-hospital services had repercussions on most health system across the world, especially in developing countries.

The confinement affected most medical disciplines, especially medical cares with a high rate of urgent activities and fragile patients such as cardiovascular consultation. Indeed, patients with cardiovascular risk factors including hypertension, diabetes, and obesity or with cardiovascular diseases represent a population at risk of developing severe forms with higher morbidity and mortality. This was a factor of stress and worry in this vulnerable population which was widely sensitized in the media, suddenly several cardiovascular patients preferred to stay at home while waiting for the lifting of the confinement.

In Morocco, the containment measures taken since March 20th, 2020 were effective in controlling the spread of the infection COVID-19, and enabled to register only 7833 confirmed cases with 205 deaths during the first 3 months of confinement (1). In our hospital at Rabat in Morocco, as part of the organization of the cardiovascular emergency care activity, we created an initial reception unit for cardiac patients where a chest CT-scan was performed for all cardiac patients followed by the realization of a PCR for suspected COVID-19 patients. Non-suspect cardiac patients were directly transferred to the intervention unit, for eventual procedure: implantation of a pacemaker, coronary angiography, angioplasty.

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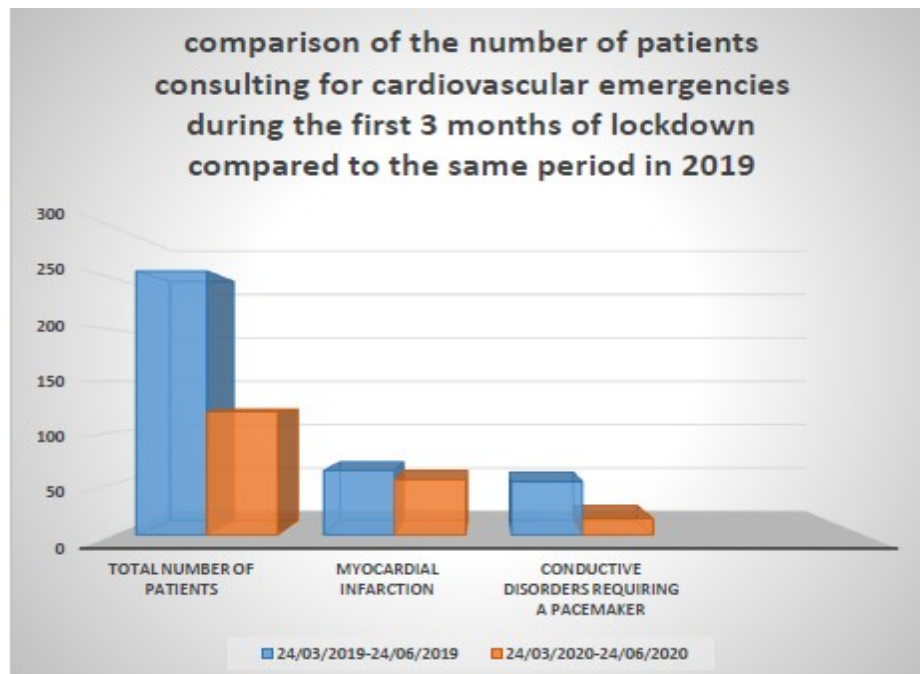
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We recorded a decrease in the number of patients consulting for cardiovascular emergencies during the first 3 months (March 24th. 2020 - to June 24th. 2020) compared to the same period in 2019 (Figure 1). Indeed, during this period, we hospitalized 120 patients, with a decrease of 53% compared to the same period of the previous year. 45% of patients were hospitalized for myocardial infarctions, about 50% of patients with myocardial infarction were admitted out of time, with a decrease in the rate of patients with thrombolysis in the acute phase (14% versus 25% in the same period 2019), while NSTEMI (Non ST-Segment Elevation Myocardial Infarction) represented 35% versus 39% in 2019.

Hospitalization for cardiac decompensation represented 30% compared to 17% in 2019 with more frequent causes of decompensation: a pulmonary and urinary tract infection, deviation from the diet, discontinuation of treatment, hypertensive peak. We have also noticed a drop of about 69 % in the rate of hospitalization for the management of conductive disorders requiring the placement of a pacemaker.

The lockdown has an impact on urgent cardiac admissions including acute coronary syndrome and has led to a change in the number and type of admissions and extended the consultation period after the onset of the first symptoms. This containment had also collateral damage which remains to date difficult to estimate. Decreased levels of physical activity and increased sedentary behavior caused by confinement can induce rapid deterioration in cardiovascular health and increased level of cardiovascular risk and premature death among populations at high cardiovascular risk, this risk is significant even with short confinement (2).

It is very important to recognize the impact of confinement in hospitalization and the follow-up of cardiac patients in order to correctly orient public health actions in the management of the pandemic COVID-19.



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