Minimally Invasive Coronary Artery Revascularization During Current Pandemics - Our experience in a third world country. ismics2022.06f005d

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Objective: Since the last decade, the notion of minimally invasive cardiac surgery (MICS) has gained worldwide rapid popularity. Bangladesh is not far from mastering this technique due to the increasing interest of both patients and surgeons. Meanwhile, during this COVID-19 era could it help patients, remains the main question and in this context, we have studied our patients operated with MICS techniques (n=89) and especially patients treated with MICS coronary artery bypass grafting (n=17).

Methods: We have included all (n=17) patients who underwent minimally invasive coronary artery surgery in our hospital from October 2020 to November 2021 irrespective of single (MIDCAB) / multi-vessel coronary artery surgery (MICAS) or combined valve replacement with coronary revascularization. Data were collected from the hospital database, telephone conversations and from direct clinic visits. All data were analyzed statistically and expressed in the form of tables.

Results: In the last 14 months of pandemics we have operated on total of 17 patients with MICS procedures, among them 10 were Minimally Invasive Direct Coronary Artery Bypass (MIDCAB), 6 were double or triple vessels coronary artery surgery (MICAS), 1 patient underwent upper-mini aortic valve replacement along with coronary revascularization. One of our patient needed re-exploration for chest wall bleeding on the same day. Mean ICU and hospital stay in our series were less than conventional revascularization. There was no in-hospital or 30 days' mortality in our series.

Discussion:

Conclusion: Cardiac surgery these days is headed toward less invasive approaches with the aid of technology, advanced instruments, and pioneer's lead. And, from our in-hospital results we conclude that by avoiding median sternotomy, these minimal invasive revascularization techniques can restore patients health by alleviating symptoms with restored vascularity, reducing morbidity, most importantly preventing sudden cardiac death. MICS also mitigate the chance of hospital acquired COVID-19 infection by shortening hospital and ICU stays ultimately reducing the health costs as added benefit.

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