CLINICAL PERSPECTIVE ON MODIFICATIONS IN CLINICAL PRACTICES OF INTERVENTIONAL CARDIOLOGISTS IN THE ERA OF COVID-19

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Life after covid-19 is changed in many ways. Considering highly contagious nature of this viral infection, many limitations are faced by health professionals as well as for patients. Patterns of care, interaction and treatment are changing day by day for safety of doctors and patients as well. The basic aim should be to decrease mortality and morbidity of patients with cardiac diseases without predisposing the life of health care professionals to risk.[1] Protective measures are mandatory for health care professionals as there is increasing incidence of infection among them in Pakistan.

Being interventional cardiologist the biggest challenge is to identify high risk patients who need invasive approach and treat them according to standard operating procedures with the aim of keeping the exposure as low as achievable in this pandemic[2]. A subset of patients should also be considered for deferral in this pandemic like

1-Patients presenting with low risk STEMI and pneumonia should be considered for conservative approach which may include thrombolysis(IWMI without RVinfarct, lateralwall MI) .
2-Low risk patients of NSTEMI should undergo medical therapy.
3-Patients with myocarditis without shock.
4-Patients with elevated cardiac enzymes related to septicemia and ARDS.
5-Elective diagnostic procedures
6-Interventions in stable patients with non-life threatening conditions[2-3].

The following modifications should be made regarding catheterization lab and during procedures.

1-All STEMI patients requiring intervention should immediately be evaluated regarding COVID-19 screening (CXR may be helpful).
2-Cath lab staff should be reduced and all present should follow standard PPE protocols and their rotation should be considered.
3- In catheterization labs Covid-19 carts should be created with all necessary equipments.
4- Ventilation system should be modified and cath lab should be converted to negative pressure room.
5- Institutes with multiple labs should dedicate one lab for covid positive or covid suspected patients and that lab system should be modified to negative pressure room and stratergies to safe containment and elimination of virus should be practiced. In some cases HEPA(high efficacy particulate air) filters should be applied[6].
6- Performing endotracheal intubation should be avoided in cath lab as much as possible. Patients with severe respiratory distress should be intubated before shifting to cath lab. If intubation is necessary with in cath lab, all unnecessary staff should leave the room.
7- If CPR is required in cath lab, automated chest compression devices should be considered to minimize personnel exposure.
8- PCI should only be considered for culprit vessel or multiple culprit lesions.
9- Operators performing procedures should be limited and they should follow social distancing as much as possible.
10- All supplies that cannot be properly cleaned/sterilized at the end of the procedure should be removed to avoid cross contamination.
11- Whenever possible, bedside procedures should be planned including IABP, pericardiocentasis, temporary venous pacemakers[5-6].

In short this pandemic will impact many patients and health care professionals. We can only deal with proper preparedness and equipment inspite of limited resources in Pakistani health system. The

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current key elements include rescheduling of elective and non-urgent procedure lists, very careful patient selection, considering risk to benefit ratio of invasive procedure selection, proper donning and doffing of PPE and cath lab cleaning, staffing modifications and giving priority to bedside procedures[1].

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