

Hippocratic Oath is taken in the beginning of medical career so as to create a permanent impression on the minds of young and budding doctors that throughout their professional lives they will abide by ethics and they will maintain morality and discipline while treating their patients. Young medical graduates go on to choose a specialty to practice, and they are made to cling on to certain guidelines, in order to rectify their practices and they are expected not to deviate too much from these guidelines.

We now follow evidence based medicine and that is resting completely on a scientific approach. Hence it is not proper to base our practice on our fantasies and to prescribe at our free will. Even then, guidelines are not sacrosanct like God- sent orders and there definitely is some flexibility according to practical situation and presentation of the patient. But this flexibility does not mean that we can mould the guidelines or manipulate them as per our convenience or to justify our vested interests.

Cardiology especially requires updated knowledge while managing patients, more so if some intervention is required. This balance is to be maintained and the crucial intersect of knowledge and update if culminates in a fine error, due to lack of updated knowledge can be disastrous to the patient and his family, putting financial burden without any benefit. Maximum commercialization of medical practice and intervention guidelines is seen in the practice of cardiology. Vested financial gains meeting the targets of corporate hospitals, and corruption conveniently force the cardiologists to look the other way round while prescribing irrational treatment.

CORONARY REVASCULARIZATION

Proper revised guidelines are available and there is no acceptable excuse if a cardiologist is unaware of them and it is unethical, rather criminal, to practice beyond these guidelines and to ascribe it to unawareness.

Reversibility of ischemia is the mainstay of management of CAD.¹ This should be documented clinically on the basis of investigations like stress echocardiography and Nuclear imaging etc and then the burden of ischemic myocardium should be quantified, so as to justify the intervention and its type. The routine corrupt practice of stenting arteries supplying necrotic myocardium is not unheard of. Such procedures bring bad name and loss of faith to cardiologists in particular and to medical personnel in general. Even in the scenario of multi-vessel stenting, selecting the culprit and significant vessel is

ethical over performing carpentry in each and every distal and small lesion not looking good in angiograms! Use of biovascular scaffold in controversial grey zones is unacceptable and should not be encouraged.

CONSENT

The issue of consent while explaining multi-vessel stenting vs. CABG has been seen to be dictated by the fact that who is explaining- the cardiologist or the cardiothoracic surgeon and not by guidelines. It has been witnessed by all of us, how the horrified attendants of a critical patient of CAD are explained while the patient being on table, and the attendants ultimately nod their heads over what the cardiologist wants to do.

Consent should be clear and simple, in the language that the patient understands well and should be based on guidelines. We should not temper the protocols and play with the fear and anxiety of the patient.

RHEUMATIC HEART DISEASE (RHD)

In case of interventions for valvular heart disease secondary to RHD, clear cut guidelines are mentioned regarding valvular repair, replacement or balloon valvotomy. The decisions are to be taken based on the clinical situation and the practicality of the problem, based on ACC guidelines and after a detailed discussion with the CTVS team. It is seen so many times, that a procedure which is fit for a particular patient is omitted due to lack of expertise and the patient is not informed regarding referral to a centre where this procedure can be done. In such situations, procedures, uncalled for as per guidelines, are carried out and the patient gets a suboptimal benefit.

CARDIOMYOPATHIES

Protocol based practices in cardiology extend very much into cardiomyopathies as well. In case of dilated cardiomyopathies (DCMP), no cardiologist seems interested in ascertaining the etiology. Treatment is prescribed on free will rather than according to guidelines. The importance of an angiography in an adult before a cardiac resynchronization therapy (CRT) is so often ignored.² Endomyocardial biopsy is almost never performed in patients labeled to be having DCMP. So many patients have died on table while undergoing CRT for DCMP, just because a prior angiography was not performed.

In case of restrictive cardiomyopathy also, etiology is hardly a concern of the cardiologist. Endomyocardial

60 biopsy is much more essential in this subset of patients but it is so often overlooked. The prognosis after procedures is so well described in this class of patients, but they are hardly the guiding lights before performing a procedure.

In case of hypertrophic cardiomyopathy (HCM), there are stringent guidelines for both medications as well as procedures.³ Genetic testing of a patient as well as his family members is a must, however it is hardly taken care of. The risk stratification for sudden cardiac death (SCD) is an essential component of the management of a patient of HCM and should always be a priority of the treating cardiologist.⁴ The guidelines for pacing are very structured in patients of HCM and they are so often flouted just to satisfy vested interests. Alcohol Septal Ablation (ASA), septal myomectomy and the indications of ICD are extensively discussed and mentioned in the ACC guidelines, however these are dictated by the free will of a cardiologist.

ARRHYTHMIAS

The guidelines for arrhythmia management are specifically important to be understood and practiced. While performing radiofrequency ablation (RFA), it is important to be sure of the type of arrhythmia and to dictate the procedure as per the type of arrhythmia and not the convenience of the cardiologist.⁵ The decision to take up a patient for electrophysiological studies should also be based on, the recurrence of an arrhythmia. It may be necessary to take up the patient urgently for RFA in some cases while in others, it may have to be carried out only after drug failure is documented. All these need to be decided as per the standard guidelines.

These days CARTO system is being used for better management of arrhythmias. CARTO is the brand-name of this medical system which is used in cardiac electrophysiology. The CARTO 3 EP navigation system helps to visualise the real-time calculated position and orientation of a specialised RF ablation catheter within the cardiac chamber.⁶ The goal of this technology is to minimise radiation exposure during fluoroscopy, and to increase the accuracy of targeted RF ablation and reacquisition of pacing sites for re-ablation.⁷

CONGENITAL HEART DISEASE (CHD)

In taking decisions regarding congenital heart disease, it is important to ensure that guidelines regarding suitability of device closure or surgical intervention should be explored in depth and decision should be guided by principle and not by mere intuition.

While taking any decision, it is also important to see that the degree of pulmonary hypertension and its severity are also accounted for. A procedure which takes care of these factors together with the definitive management of the lesion should be chosen rather than a procedure which minimally improves pulmonary hypertension vis-à-vis the anatomical improvement in the lesion. Hence we see that the type of CHD as well as the associated abnormalities have to be kept in mind while taking a final decision.

DEVICES FOR CONGESTIVE HEART FAILURE (CHF)

Protocols and guidelines are especially important while taking up a patient for cardiac resynchronization therapy (CRT), as the cost of treatment is high but the change in ejection fraction is less. However, even a mild increment in ejection fraction is sufficient to provide great symptomatic relief.⁸ As per the ACC/AHA class I indications for CRT, it is indicated in patients who have an ejection fraction of $\leq 35\%$, who are in sinus rhythm with a QRS duration of ≥ 150 msec and NYHA class II, III or ambulatory IV symptoms.⁹ Similarly for implantable cardioverter defibrillator (ICD) implantation in CHF, it is also important to stratify patients who are at risk of SCD and also to select patients who are expected to live for more than one year.¹⁰ In another new development, heart transplantation might become arbitrary owing to the high cost of the procedure and hence guidelines need to be strictly followed for the benefit of the patient and the care-givers.

CONCLUSION

Guidelines are for evidence based rational treatment. Sometimes cardiologists can read in between lines as per the clinical scenario and there a deviation from protocols is justified. But a deviation which is far from the original guidelines and getting involved into corrupt practices for commercial gains is not only unethical but criminal with serious legal ramifications.

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