APPROACHING THE EMERGENCIES IN CARDIOLOGY

1. CARDIAC TAMPONADE

(PRESENTING WITH SHOCK- PULSUS PARADOXUS-RA OR RV. DIAS. COLLAPSE). MASSIVE PERICARD. EFFUSION , ALONE , WITH OUT ABN. RADIAL PULSE. OR SHOCK – IS NOT AN INDICATION OF PERICARDIOCENTESIS.

--- FOR PREPARING TO PERICARDIOCENTESIS: POSTURE AT 45 –LOCAL AREA STERALISATION –DRAPPING –LOCAL ANESTH. INFILTRATION—SELDINGER NEEDLE, AT SUBCOSTAL AREA , DIRECTED TO THE LT. SHOULDER ,AT AN ANGLE OF PENETRATION AT 45.—

-- ,ATTACHED TO 20 CC. SYRING, ATTACHED TO AN ECG LEAD ,WITH ACLIP(ECG SIGNAL WILL CHANGE FROM USUAL SIGNAL INTO A SIGNAL WITH ST. ELEVATION, IF THE NEEDLE REACHED OR PIERCED THE MYOCARDIUM THROUGH THE PERICARDIAL SPACE , PREVENTING ITS INJURY AND ITS CATASTROPHIC COMPLICATIONS

--AVOID BLIND ATTEMPS (WITHOUT ECG .LEAD ,OR ECHO PROBE AT ITE OF PENETRATION –SUBCOSTAL AREA.

—INTRODUCE THE NEEDLE WITH NEGATIVE PRESSURE ,TILL ASPERATING FREE FLUID FLOW.

–INTRODUCE THE GWUIDE WIRE, UNDER THE FLOURO, WATHCHING THE ECG SIGNAL AT THE SCREEN

—WIDEN THE AREA OF GW. PENETRATION WITH A SCALPEL – INTRODUCE ,GENLTLY, AND CAUTIOSLY ,THE CATHETER(PIG TAIL, 5 FRENCH SIZE)

—SUTURE –CONNECT THE CATHETER WITH 3-WAYS-VALVE

– KEPT THERE FOR 3 DAYS

–MONITORING VITAL SIGNS, SERIAL ECHO

,-SENDING FEW CCs OF THE ASPERATED FLUID FPR ANALYSIS- IF CERTAIN PATHOLOGY IS SUSPECTED(PROT-SUGER –NEUTROPH,-LYMPHOCYTES—SMEAR FOR BACT.—CULTURE)

—WITHDROW THE CATHETER AFTER 3 DAYS AND AFTER ASSURING OF NO FLUID REACCUMULATION)

2 A. STMI

- FOR THROMBOLYTIC (BOLUS THEN MAINTENANCE) (IF NO CI. OR PREACUTIONS)(WITHIN 6-12 H.s AS TIME WINDOW)

—OR PRIMARY PCI (TIME WINDOW OF 4 H.) (IF UNAVAILABLE THROMBOLYTICS, OR PRESENCE OF CLINICAL CI. OR PRECAUTIONS

(IF USING WARFARIN –CAG\PCI WILL BE CI. WITH ELEVATED INR).

3. VT\V.FLUTTER \VF\TOURSADE de POINTS:

-- FOR -DC\ SYNCRONIZED- -(USING 200-360 JOULS) --ABO. PRINCIPAL\ USING AMBOU BAG

--REVERT THE PRECEPITATING CAUSE --SEDATE IF CONSCIOUS.

--DELAYING DC. SHOCK FEW MINUTES WILL DECREASE THE POSSIBILITY OF REVERTING IT SUCCESSFULLY INTO SINUS RHYTH.
--NEGLECTING ABO. PRINCIPLE WILL DECREASE THE SUCCESS.
--MULTIPLE FAULERS IS AN INDICATION OF ENDOTRACHIAL INTUBATION ,, TO REVERT HYPOXIA, RATHER THAN AN INDICATION OF INTRACARDIAC ADRENALINE.
---WIDE QRS. TACHYCARD .(EITHER VT. OR SVT. WITH BBB, AS AN ABERRATION) NEED TO BE DIFFERENTIATED : MAINLY IN THE PRESENCE OF CONCORDANT QRSs (POSATIVE OR NEGATIVE) INDICATED VT. OTHER CRITERIA FAVER VT. ARE QRS.WIDTH .>140 MS. IN RBBB,>160 MS. IN ABERRATION. THE CONFIGURATIONAL CHANGES OF QRS ARE MOSTHEPFUL IF THEQRS IS NOT WIDELY DILATED.. HEMODYNAMIC INSTABILITY IS NOT ADIFFERENTIATING CARACTER, ALTHOUGH, ,IN BOTH:DC. IS INDICATEDLBBB,EXTREME LT. AXIS DEVIATION, IN CONTRARY. THE ABSENCE OF RS. IN PRECORDIAL LEADS IS RARE IN SVT-

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3 SVT\ AF\ A.TACH.\A.FLUTTER

, ALL WITH HEMODYNEMIC INSTABILITY (SHOCK\ SEVERE SYST. HYPOT\ PRECEPITATED ANGINA OR PULM. OEDEMA)
.— FOR DC. WITH SYNCRON-AFTER SEDATION\ PETHIDINE , OR IV. LORAZIPAM OR DIAZEPAM ,MINIMAL . DOSE TILL SEDATION.
--ALL (EXCEPT SVT.) , NEED ANTICOAGULATION(HEPARINE \WARFARINE),PRIOR TO CARDIOVERSION (PHARMACOLOGICALLY\DC.)—AND WARFARINE FOR 4 WEEKS, POST CARDIOVERSION.
--USING 150-250 JOULS\ SYNCRONIZED.

4 COMPLETE. HB

., ,VENTRICULAR RATE IN 30s ,WITH WIDE QRS(LOW VNTRICULAR SUBSIDERY PACEMAKER : UNRELIABLE –HIGH RISK OF VENTRICULAR ASYSTOLE--SUDDEN CARDIAC DEATH)
.— FOR TEMPORARY PACEMAKER IMPLANTATION
–FIXED AT 60s AS PACING VENT. RATE)
—PREFERABLY IN LT. SUBCLAVIAN VEIN –OR RT. FV. AS ACCESS \ USE HEPARINE PROPHYLAXIS, AND PARENTERAL EMPIRIC ANTIBIOTICS)
—COSULTING THE PAT. AGAINST LIMB MOVEMENT ,OR AMBULATION
–PROBING THE LT. ARM IN THE 2ND. APPROACH
.—SERIAL FOLLOW Ups FOR BATTERY STATUS, VENT. RATE ,PACING STATUS, CAPTURING ,AND SENSING FUNCTIONS THROUGH ANALYSING ECG. WITH A LONG STRIP.
--DAILY SWITCHING TH PM. BOX –OFF , UNDER ECG MONITORING, IS INDICATED TO ASSESS IF THE NATIVE SINUS RHYTHEM, AND RESOLVEMENT OF CHB. IS PRESENT,WITH ITS RELIABILITY –CONSTANT –OTHERWISE ,THE TEMP. PM. WILL BE LENGTHENED ,

AND CONSIDERATION OF IMPLANTING A PERMANENT PM.

5 ACUTE SEVERE MR
(\ COMLICATING A. BACTERIAL ENDOCARITIS\ADVANCED MVP-FLIAL MV BY ECHO DOPPLER - CARDIAC RELATED MURMERS ARE FAINT,CANT. BE RELIED ON FOR Dx. OR SEVERITY ASSESSEMENT. .)\
ACUTE SEVERE AR (COMLICATING A. BACT. ENDOCADITIS,IN SUBAORTIC VSD-WTH OR WITHOUT AN INVOLVING VEGETATION ,AT THE AORTIC CUSPS –BY ECHO, DOPPLER –CARDIAC MURMURE IS FAINT ,OR HIDDEN BY OTHER PREVIOUS MURMURES), ALL PRESENTING WITH CARDIOGENIC SHOCK
.— FOR OPEN HEART SURGERY AS AN EMERGENCY—WITH HIGH PEROPERATIVE MORTALITY RATE.
--PRE- OPERATIVE USE OF INTRA AORTIC BALLOON COUNTERPULSATION IS CI.IN BOTH OF THESE ACUT VALVULAR HEART DISEASES.

6 PULM. EMBOLISM –MASSIVE
(PRESENTING WITH SHOCK-DILATED RV –BY ECHO, DOPPLER-MIGHT SHOW ATAIL OF AN EMBOLUS IN THE PULMONARY ARTERY OR ITS BIFURCATIONS .)
--- FOR -THROMBOLYTICS , AS THAT IN STMI –WITH A TIME WINDOW UP TO 14 DAYS ,FROM TIME OF ONSET)
.—USE HEPARINE SC. *4 ,AFTER COMPLETION OF THROMBOL. INFUSION, TO PREVENT CLOT DEBRIS REACCUMULATION –WATCHING FOR OVERANTICOAGULATION, CLINICALLY ,AND BY CONTROLLING LEVELS OF PT\PTT\ PLAT. COUNT
----PRESENCE OF A PREVIOUS OR CURRENT DVT IS NOT A PREREQUEST FOR Dx
.—ABSENCE OF ELEVATED D- DIMER IS AGAINST THE Dx –
--PERCUTANEOUS MECHANICAL PULMONARY EMBOLECTOMY-ASPERATION CATHETERS, ANGIOGET CATHETERSM TO INDUCE PROX. NEGATVE PRESSURE, FOR CLOT DISLOGEMENT—ALL OF LIMITED CLINICAL USE .

7 LOWER LIMB CRITICAL RESTING ISCHEMIA
–SEVERE RESTING DISTAL TOE,OR FORE- FOOT , UNILAT. RESTING SEVERE FOOT PAIN (WITH OE WITHOUT GANGRENOUS CHANGES) -
--ABSENT DISTAL PERIPHERAL PULSES—COLD—PALE, OR BLUE\GANGRENOUS , IF DELAYED IN PRESENTATION
---EITHER CAUSED BY THROMBO-EMBOLISM, IN THE PRESENCE OF AF., --OR DUE TO ATHEROMA IN SITU, OR ATHERO-EMBOLISM, IN A DIABETIC FOOT.
—FOR USING FOGARTY BALLOON CATHETER INFLATION –BY A VASCULAR SURGEON --TO REMOVE THE OBSTRUCTING LARGE EMBOLUS , ESPECEILLY IF IN THE PROXIMAL NATIVE ARTERY.

.—ALTERNATIVELLY: FOR LOCAL THROMBOLYTIC INFUSION INFUSED FOR 20 HOURS CONTINOUSLY, , THROUGH A SPECIAL LONG INFUSINGM SIDE HOLES CATHETER, ,NEAR AND AT THE SITE OF OBSTRUCTION.-USED FOR DISTAL LARGE ART. OR GRAVTED VES.(BALLOON INFLATION IS CI. IN GRAFTED VES.)
--BURGERS DIS, (HTROBANGITIS OBLITERANCE IS NOT AN EMERGENCY, WITH NO SPECIAL INDICATION FOR PERCUTANEOUS PERIPHERAL ANGIOPLASTY.

9. PROX. ACUTE DVT
.-- IN PROX. COMMON FV. , OR THE MORE PROX. VEINS, OR PROX. SUBCLAVIAN\AXILLARY VEIN—PRESENTING WITH RAPIDLY PROGRESSIVE LEG ,AND ESPECIALY THIGH ,PAINFUL SWELLING--(WITH OR WITOUT PERIPHERAL CYANOSIS –-SEVERE VENOUS HYPERTENSION ,-- IMPAIRING PERIPHERAL ARTERIAL CIRCULATION) ,
.— FOR THROMBOLYTICS AS INTRAVNOUS INFUSION , OR CATHETER GUIDED.
--OTHERWISE: IV HEPARIN INFUSION ,WITH A SPECIAL ALGORYTHEM, MONITERING THE RATE BY PTT ,(START WITH A BOLUS DOSE:80 U\KG.-- MAINTENANCE INFUSION RATE: 18 U \KG.\H.— WAIT FOR 6 HOURS TO MEASURE ANOTHER PTT –IF 50-60 ;INCREASE THE RATE TO 25 U\KG \H.--IF <50 : INCREASE IT TO 50 U \KG.\H.
--HIGH INCIDANCE OF PPS.(POST- PHLEBITC SYNDROME) IS HIGH IF HEPARINE IS USED IN FIXED DEVIDED DOSES,(IV ,OR SC),

10. ORAL OVER-ANTICOAGULATION:
CLINICAL MAJOR, LIFE THREATINING BLEEDING (AS INTRACRANIAL , INTRAOCULAR ,HEMATEMESIS, HEMATOSCHEZIA), +ELEVATED INR >8
— FOR USING VIT. K ,IV. INFUSION, 5 MG. -,INR WILL BE CORRECTED WITHIN 6 HOURS
.—OR FFP. IV . ,-- REASSESS INR AFTER 30 MIN, AFTER EACH INFUSION.
—USE TRANEXAMIC ACID IV. BOLUS OVER 10 MIN.,CAN BE REPEATED *3.,IF THERE IS STILL A BLEEDING .