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Focused
Cardiology Forums

CHRONIC CORONARY SYNDROME

DAILY
CARDIOLOGY
ACADEMY

2nd Session

Symptom relief and event prevention through optimal medical therapy in chronic coronary syndrome

Panelist Experts

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CASE #1

- 58-year-old gentleman, visited in clinic for second opinion. He is asymptomatic and has excellent functional class.
- **PMH**: DM (5 $_{years}$), HTN (5 $_{years}$), Ex-cigarette smoker (5 $_{years}$)
- **DH**: Valsartan 80$_{mg}$ OD, Metformin 500$_{mg}$ OD, Rosuvastatin 5$_{mg}$ OD
- **Ph/Ex**: BP: 135/85$_{mmHg}$, HR:78$_{bpm}$, BMI: 26.4
- **ECG**: Normal
- **Echo**: EF=55%, Mild MR, Mild TR, No RWMA, sPAP=25 $_{mmHg}$

CASE #1

- **Lab test**:
  - TC: $194_{mg/dl}$, LDL-C: $118_{mg/dl}$, HDL, $35_{mg/dl}$, $TG=205_{mg/dl}$, $eGFR=77_{ml/min}$, $FBS=98_{mg/dl}$, $2hpp=145_{mg/dl}$, $HbA1c=6.8_{\%}$
- **CCTA**:
  - LM: NL
  - LAD: mild stenosis at the proximal part
  - LCX: nondominant, and patent
  - RCA: dominant with moderate stenosis at proximal part
  - CAC score: 117

CHALLENGE

Did he need CCTA?

A. YES

B. NO

58/M, asymptomatic, DM, HTN, ex-CS, BP=135/85, Normal ECG & Echo, LDL= 118, TG= 205

CHALLENGE

Do you recommend CAG?

A. YES

B. NO

58/M, asymptomatic, DM, HTN, ex-CS, BP=135/85, Normal ECG & Echo, LDL= 118, TG= 205
CCTA: Mild Prox. LAD-Moderate Prox. RCA- CAC=117

CHALLENGE

Does he need anti-thrombotic therapy ?

A. YES

B. NO

58/M, asymptomatic, DM, HTN, ex-CS, BP=135/85, Normal ECG & Echo, LDL= 118, TG= 205
CCTA: Mild Prox. LAD-Moderate Prox. RCA- CAC=117

CHALLENGE

Do you recommend anti-ischemic therapy?

A. YES

B. NO

58/M, asymptomatic, DM, HTN, ex-CS, BP=135/85, Normal ECG & Echo, LDL= 118, TG= 205
CCTA: Mild Prox. LAD-Moderate Prox. RCA- CAC=117

CHALLENGE

Are blood pressure numbers acceptable?

A. YES

B. NO

58/M, asymptomatic, DM, HTN, ex-CS, BP=135/85, Normal ECG & Echo, LDL= 118, TG= 205
CCTA: Mild Prox. LAD-Moderate Prox. RCA- CAC=117

CHALLENGE

Are lipid numbers acceptable?

A. YES

B. NO

58/M, asymptomatic, DM, HTN, ex-CS, BP=135/85, Normal ECG & Echo, LDL= 118, TG= 205
CCTA: Mild Prox. LAD-Moderate Prox. RCA- CAC=117

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CASE #2

- 66-year-old lady visited in clinic for routine follow-up.
- PCI on proximal of LAD (DES), 1 year ago (NSTEMI).
- She is asymptomatic in routine daily activity.
- **PMH**:
  - DM (5 years)
  - HTN (5 years)
  - DLP (5 years)
  - PCI on RCA 3 yrs ago, PCI on LAD 1 y ago

CASE #2

- **DH**: ASA 80_{mg} OD, Ticagrelor 90_{mg} BID, Valsartan 160_{mg} OD, Empagliflozin/Metformin $5/500_{mg}$ BID, Rosuvastatin 40_{mg} OD, Eplerenone 25_{mg} OD, Bisoprolol 5_{mg} OD, NC 2.6_{mg} BID
- **Ph/Ex**: BP: 127/73 $_{mmHg}$, HR:68_{bpm}, BMI: 29
- **ECG**: NSR, Q in anterior leads, Anterior TWI
- **Echo**: EF=40%, Mild/Mod MR, Anterior RWMA, sPAP=25 $_{mmHg}$
- **LAB TEST**:
  - TC: $154_{mg/dl}$, LDL-C: $98_{mg/dl}$, HDL, $35_{mg/dl}$, TG=$105_{mg/dl}$, eGFR=$55_{ml/min}$, FBS=$114_{mg/dl}$, 2hpp=$165_{mg/dl}$, HbA1c=$7.2_{\%}$

CHALLENGE

Do you extend DAPT?

A. YES

B. NO

66/F, asymptomatic, DM, HTN, DLP, PCI (3&1Y), BP=127/73, EF=40%, LDL= 98, TG= 105, eGFR=55, HbA1c=7.2, ASA 80_{mg}, Ticagrelor 90_{mg} BID, Valsartan 160_{mg}, Bisoprolol 5_{mg}, Eplerenone 25_{mg} Empagliflozin/Metformin $5/500_{mg}$ BID, NC 2.6_{mg} BID, Rosuvastatin 40_{mg}

CHALLENGE

Do you recommend nitrate?

A. YES

B. NO

66/F, asymptomatic, DM, HTN, DLP, PCI (3&1Y), BP=127/73, EF=40%, LDL= 98, TG= 105, eGFR=55, HbA1c=7.2, ASA 80_{mg}, Ticagrelor 90_{mg} BID, Valsartan 160_{mg}, Bisoprolol 5_{mg}, Eplerenone 25_{mg} Empagliflozin/Metformin $5/500_{mg}$ BID, NC 2.6_{mg} BID, Rosuvastatin 40_{mg}

CHALLENGE

Are blood pressure numbers acceptable?

A. YES

B. NO

66/F, asymptomatic, DM, HTN, DLP, PCI (3&1Y), BP=127/73, EF=40%, LDL= 98, TG= 105, eGFR=55, HbA1c=7.2, ASA 80_{mg}, Ticagrelor 90_{mg} BID, Valsartan 160_{mg}, Bisoprolol 5_{mg}, Eplerenone 25_{mg} Empagliflozin/Metformin $5/500_{mg}$ BID, NC 2.6_{mg} BID, Rosuvastatin 40_{mg}

CHALLENGE

Are lipid numbers acceptable?

A. YES

B. NO

66/F, asymptomatic, DM, HTN, DLP, PCI (3&1Y), BP=127/73, EF=40%, LDL= 98, TG= 105, eGFR=55, HbA1c=7.2, ASA 80_{mg}, Ticagrelor 90_{mg} BID, Valsartan 160_{mg}, Bisoprolol 5_{mg}, Eplerenone 25_{mg} Empagliflozin/Metformin $5/500_{mg}$ BID, NC 2.6_{mg} BID, Rosuvastatin 40_{mg}

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CASE #3

- 51-year-old-gentleman with typical chest pain when he was Climbing the three-story stairs rapidly.
- He has excellent functional class.
- **PMH**: No
- **Ph/Ex**: BP: $115/75_{mmHg}$, HR:73_{bpm}, BMI: 25.4
- **ECG**: NSR, Normal Axis
- **Echo**: EF=$55_{\%}$, Mild TR, No RWMA, sPAP=20_{mmHg}

CASE #3

- **LAB TEST**: TC: $214_{mg/dl}$, LDL-C: $128_{mg/dl}$, HDL, $35_{mg/dl}$, TG=$255_{mg/dl}$, eGFR=$96_{ml/min}$, FBS=$86_{mg/dl}$, Hb=$16.5_{mg/dl}$
- **Treadmill stress test**: Excellent FC (10_{METs}), No ischemic change, Without symptom, Normal hemodynamic response
- **Carotid US**: normal bilateral cIMT (0.6_{mm}) in CCA with small, soft homogenous plaque in right carotid bulb (15_{mm}*8_{mm}).
- **MPI**: Mild ischemia in mid and apical of inferior wall.

CHALLENGE

Do you recommend CAG?

A. YES

B. NO

51/M, TCP FC_1, BP=115/75, Normal ECG, Normal Echo, LDL= 128, TG= 255, Normal ETT, Small carotid bulb plaque, mild ischemia in mid and apical of inferior wall

CHALLENGE

Do you recommend anti-ischemic therapy?

A. YES

B. NO

51/M, TCP FC_1, BP=115/75, Normal ECG, Normal Echo, LDL= 128, TG= 255, Normal ETT, Small carotid bulb plaque, mild ischemia in mid and apical of inferior wall

CHALLENGE

Do you recommend antiplatelet?

A. YES

B. NO

51/M, TCP FC_1, BP=115/75, Normal ECG, Normal Echo, LDL= 128, TG= 255, Normal ETT, Small carotid bulb plaque, mild ischemia in mid and apical of inferior wall

CHALLENGE

Do you recommend a Lipid-lowering agent?

A. YES

B. NO

51/M, TCP FC_1, BP=115/75, Normal ECG, Normal Echo, LDL= 128, TG= 255, Normal ETT, Small carotid bulb plaque, mild ischemia in mid and apical of inferior wall

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CASE #4

- 65-year-old gentleman, with typical exertional chest discomfort and heaviness since few months ago in routine daily activity.
- S/P CABGs 10 years ago, S/P PCI on proximal of LCX 1 year ago
- **PMH**: HTN (10_{years}), Ex-C/S ($20_{pack\text{-}year}$), DM (10_{years})
- **Ph/Ex**: BP: $102/61_{mmHg}$, HR:88_{bpm}, BMI: 35.4
- **ECG**: NSR, Q in inferior leads, Poor R wave progression in $V_{1\text{-}5}$
- **Echo**: EF=$35_{\%}$, Mild TR, Anteroseptal & inferior RWMA, sPAP=32_{mmHg}

CASE #4

- **Drug**: ASA 80_{mg} OD, Ticagrelor 90_{mg} BID, Rosuvastatin 40_{mg} OD, Bisoprolol 10_{mg} OD, Valsartan 160_{mg} BID, Metformin 500_{mg} BID, Eplerenone 25_{mg} OD, Ezetimibe 10_{mg} OD
- **LAB TEST**: TC=$174_{mg/dl}$, LDL-C=$108_{mg/dl}$, HDL=$35_{mg/dl}$, TG=$155_{mg/dl}$, Hb=$15_{mg/dl}$, eGFR=$55_{ml/min}$, BUN=$18_{mg/dl}$, Uric acid=$5.1_{mg/dl}$, FBS=$118_{mg/dl}$, 2hpp=$148_{mg/dl}$, HbA1c=$6.9_{\%}$

CASE #4

- **CAG**:
  - Severe diffuse three vessel disease, dominant LCX
  - Moderate narrowing of LCX stent
  - Occluded all vein grafts
  - Patent LIMA-LAD graft with poor LAD runoff after graft insertion

CHALLENGE

Is HFrEF treatment optimized?

A. YES

B. NO

65/M, TCP FC 2, Hx of HTN/DM/exCS, BP=102/61, HR=88, Echo: EF=35%, WMA, LDL= 108, CKD satge3, Severe 3VD, Occluded VG, Poor LAD R/O, ASA 80, Ticagrelor 90BID, Rosuvastatin 40, Bisoprolol 10, Valsartan 160 BID, Metformin 500 BID, Eplerenone 25, Ezetimibe 10

CHALLENGE

What is your next anti-anginal agent?

A. Ivabradine

B. CCB

65/M, TCP FC 2, Hx of HTN/DM/exCS, BP=102/61, HR=88, Echo: EF=35%, WMA, LDL= 108, CKD satge3, Severe 3VD, Occluded VG, Poor LAD R/O, ASA 80, Ticagrelor 90BID, Rosuvastatin 40, Bisoprolol 10, Valsartan 160 BID, Metformin 500 BID, Eplerenone 25, Ezetimibe 10

CHALLENGE

Do you extend DAPT?

A. YES

B. NO

65/M, TCP FC 2, Hx of HTN/DM/exCS, BP=102/61, HR=88, Echo: EF=35%, WMA, LDL= 108, CKD satge3, Severe 3VD, Occluded VG, Poor LAD R/O, ASA 80, Ticagrelor 90BID, Rosuvastatin 40, Bisoprolol 10, Valsartan 160 BID, Metformin 500 BID, Eplerenone 25, Ezetimibe 10

CHALLENGE

Do you recommend Empagliflozin?

A. YES

B. NO

65/M, TCP FC 2, Hx of HTN/DM/exCS, BP=102/61, HR=88, Echo: EF=35%, WMA, LDL= 108, CKD satge3, Severe 3VD, Occluded VG, Poor LAD R/O, ASA 80, Ticagrelor 90BID, Rosuvastatin 40, Bisoprolol 10, Valsartan 160 BID, Metformin 500 BID, Eplerenone 25, Ezetimibe 10

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CASE #5

- 42-year-old gentleman presented with retrosternal chest pain mostly at night and early morning. The frequency of symptoms increased in recent weeks. ECG at ED was normal, three times.
- **PMH**: cigarette smoking ($5_{pack\text{-}year}$)
- **Ph/Ex**: BP: $122/89_{mmHg}$, HR:92_{bpm}, BMI: 24.8
- **ECG**: NSR, Tall T wave in $V_{1\text{-}3}$
- **Echo**: EF=60%, Mild TR, No RWMA, sPAP=22_{mmHg}

CASE #4

- **Drug**: ASA 80_{mg} OD
- **LAB TEST**: TC=$178_{mg/dl}$, LDL-C=$88_{mg/dl}$, HDL=$35_{mg/dl}$, TG=$275_{mg/dl}$, FBS=$84_{mg/dl}$, Hb=$14.5_{mg/dl}$
- **Exercise Treadmill Test**: Excellent Functional class, No ischemic STT change, Normal hemodynamic response
- **CAC score**: 0

CHALLENGE

Do you recommend CAG?

A. YES

B. NO

42/M, TCP at rest, CS (5_{PY}), Normal ECG, Normal Echo, Normal CAC, Normal Lab test

CHALLENGE

Do you recommend further CV assessment?

A. YES

B. NO

42/M, TCP at rest, CS (5_{PY}), Normal ECG, Normal Echo, Normal CAC, Normal Lab test

CHALLENGE

Do you recommend anti-anginal agent?

A. Yes

B. No

42/M, TCP at rest, CS (5_{PY}), Normal ECG, Normal Echo, Normal CAC, Normal Lab test

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