The relationship between c-Troponin-I and CK-MB values measured after the procedure and cardiovascular events in the medium and long term in patients who underwent Elective Angiography and underwent Percutaneous Coronary Intervention

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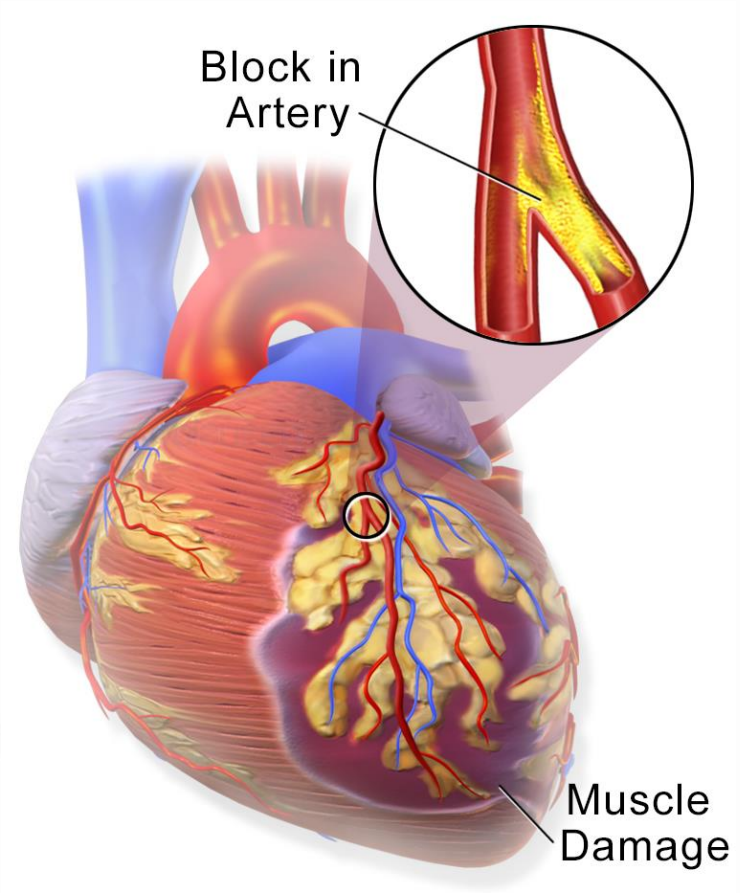
Cardiovascular System Diseases

- Causes 20 million deaths worldwide. 30% of these deaths are due to cardiovascular diseases deaths due to diseases.
- In Turkey, about 200,000 people have cardiovascular disease every year dies due to illness.
- Despite all this frightening image, perhaps the most comforting aspect of the issue is that cardiovascular diseases are in the “preventable diseases group”. It is possible to reduce the risk of death from cardiovascular diseases by 80% with small changes in lifestyle.



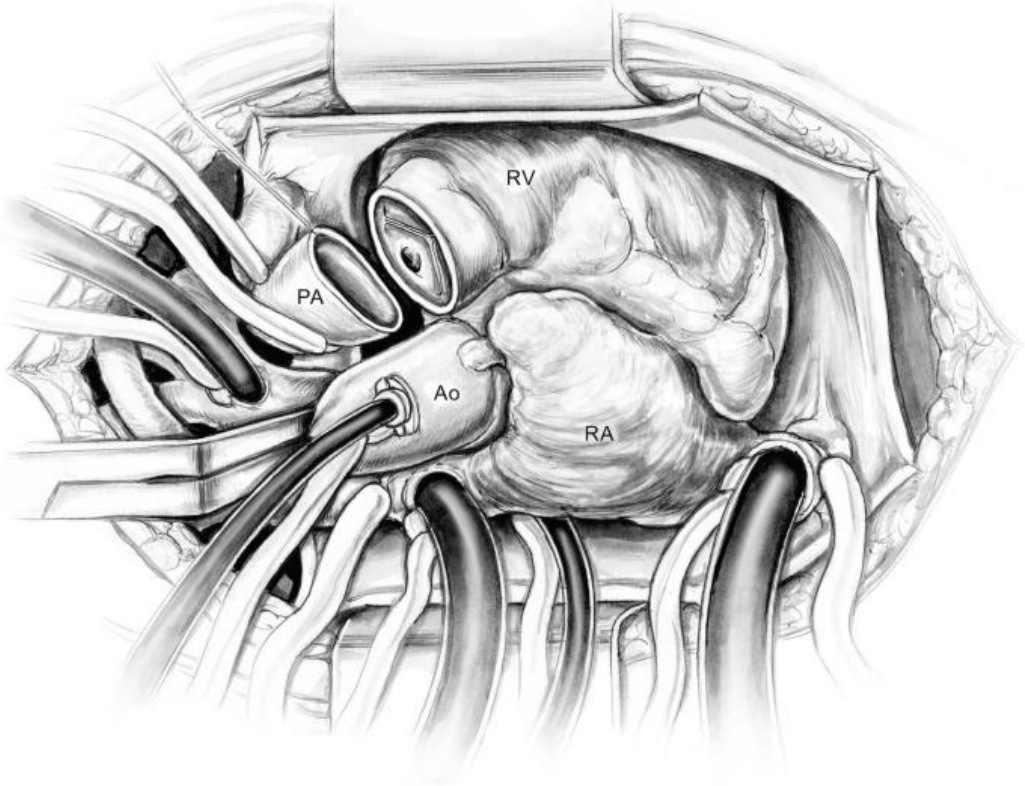
The disease manifests itself with:

- chest pain,
- heart failure,
- direct heart attack.

Pain at rest, starting from the left chest and spreading to the neck and jaw, is also among the symptoms.

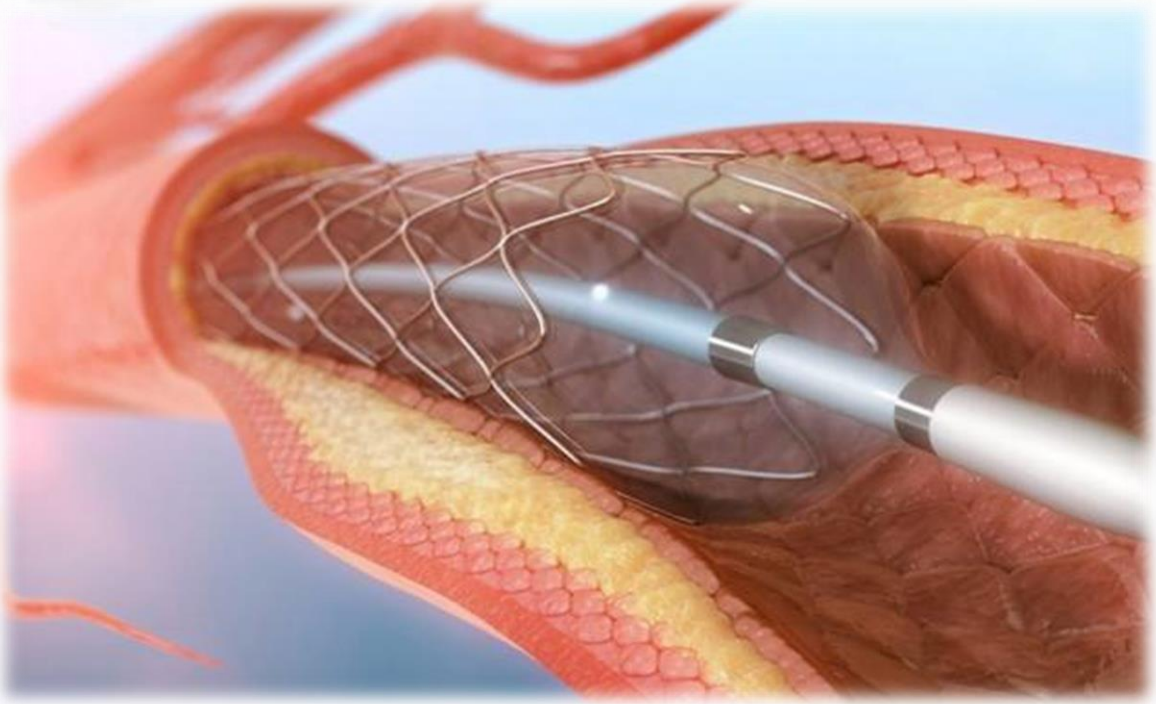
There are three accepted treatment methods in coronary artery diseases:

- drug therapy,
- balloon or stent insertion,
- coronary by-pass surgeries.



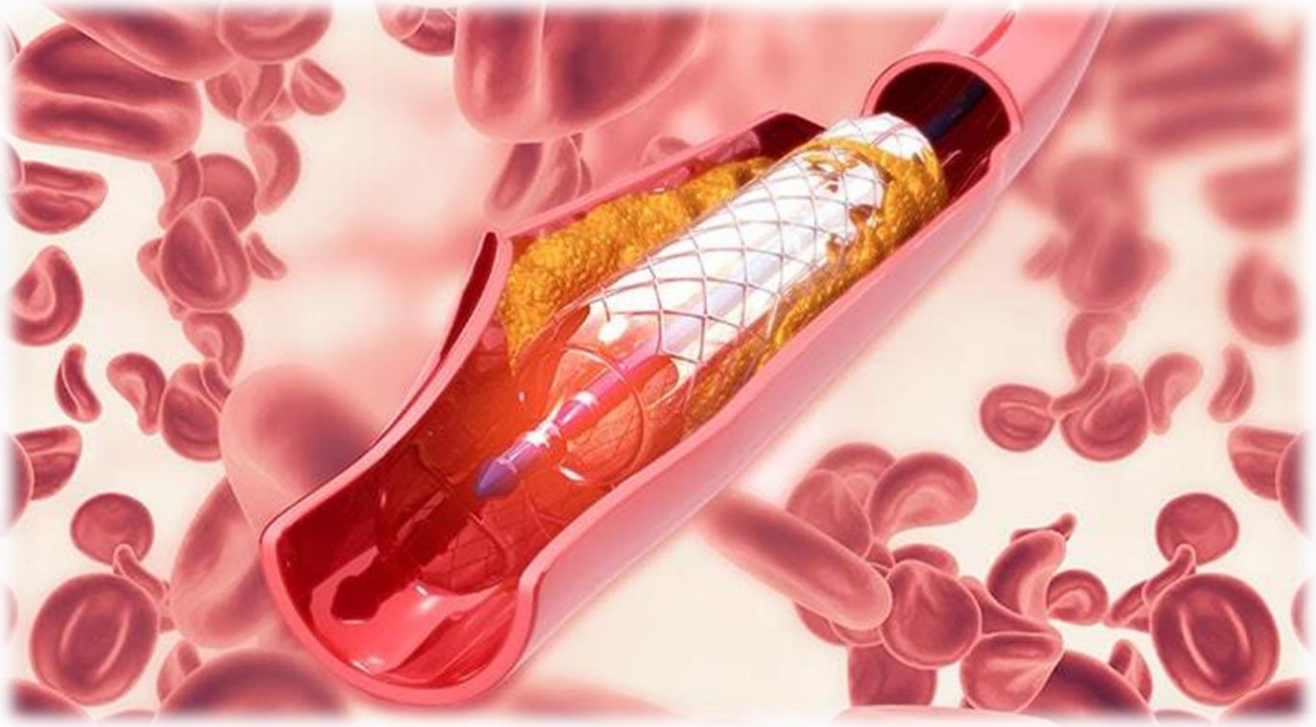
Coronary Angioplasty

- Since the first coronary angioplasty in humans was accomplished by Andreas Gruentzig in 1977, **percutaneous coronary intervention (PCI)** has been dramatically improved and has become one of the most commonly used approaches for coronary revascularization.



Complications of PCI:

- acute stent,
- thrombosis,
- coronary perforation,
- stroke,
- death (rarely occur)



Purpose of the Study

- The application of elective percutaneous coronary intervention, which is the method frequently used in the treatment of coronary what are the determinants of periprocedural myocardial damage in patients with arterial disease, to find and evaluate the incidence of the disease, its correlation with various biomarkers and to evaluate the disease.
- We aimed to try to evaluate the prognosis of PMI that occurs with treatment.

Patient Population

- 206 patients (January 2021-January 2022)
- **Inclusion criteria:**
  - Canadian Heart Association Class 2 stabile Angina Pectoris
- **Exclusion criteria:**
  - Acute Coronary Syndrome
  - Warehouse diseases
  - Initial c-Troponin-I elevation
  - Kidney failure
  - Hemodynamic instability
  - Chronic liver disease
  - Cancer patients

classify the prognostic impact of PMI:

- Age
- Gender
- Diabetes mellitus
- Previous PCI
- Old myocardial infarction (OMI)
- Bifurcation lesion
- Calcification
- Multi-vessel disease

Results:

In this study:

- 206 patients
- The average age : 66.26 ±10.42
- 154 (74.8%) male- 52 (25.2%) female
- statistically significant, positive and low-grade correlation between age and c-Troponin-I and CK-MB

(respectively, r=0.210, p=0.004; r=0.185, p=0.011).

- The number of occluded vessels and c-Troponin-I and CK-MB values;

a statistically show significant, positive and low-level correlation respectively,

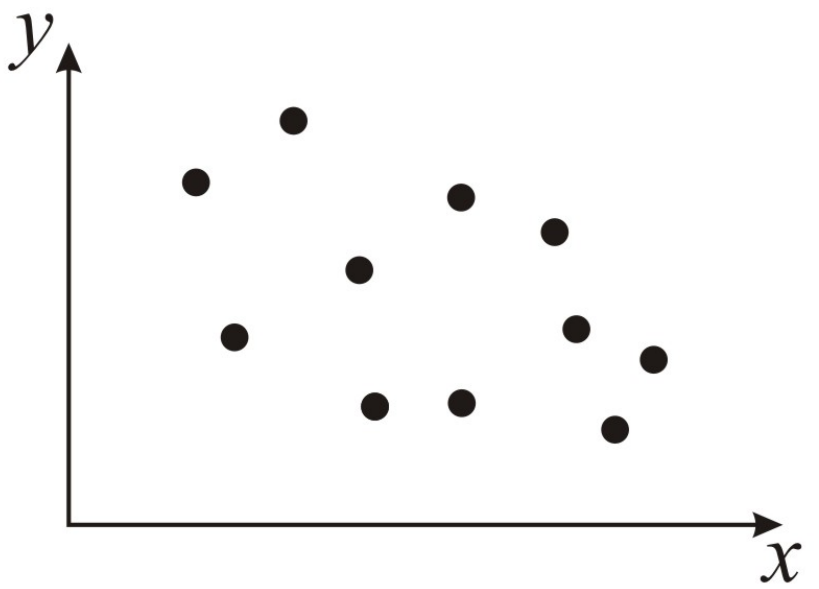
(r=0.222, p=0.002; r=0.197, p=0.007).

No significant correlation;

- Diabetes, Hypertension,
- Hyperlipidemia,
- used artery in which attempted (Femoral or Radial),
- smoking,
- event during the follow-up period (exitus, stroke, re-PCI),
- Cerebrovascular Accident ($p>0.05$).

At the same time, no significant correlation;

- pre-procedural laboratory parameters (WBC, HGB, PLT, total Cholesterol, HDL, LDL, HbA1C)
- Body Mass Index ($p>0.05$ for all).



References

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Thanks for listening