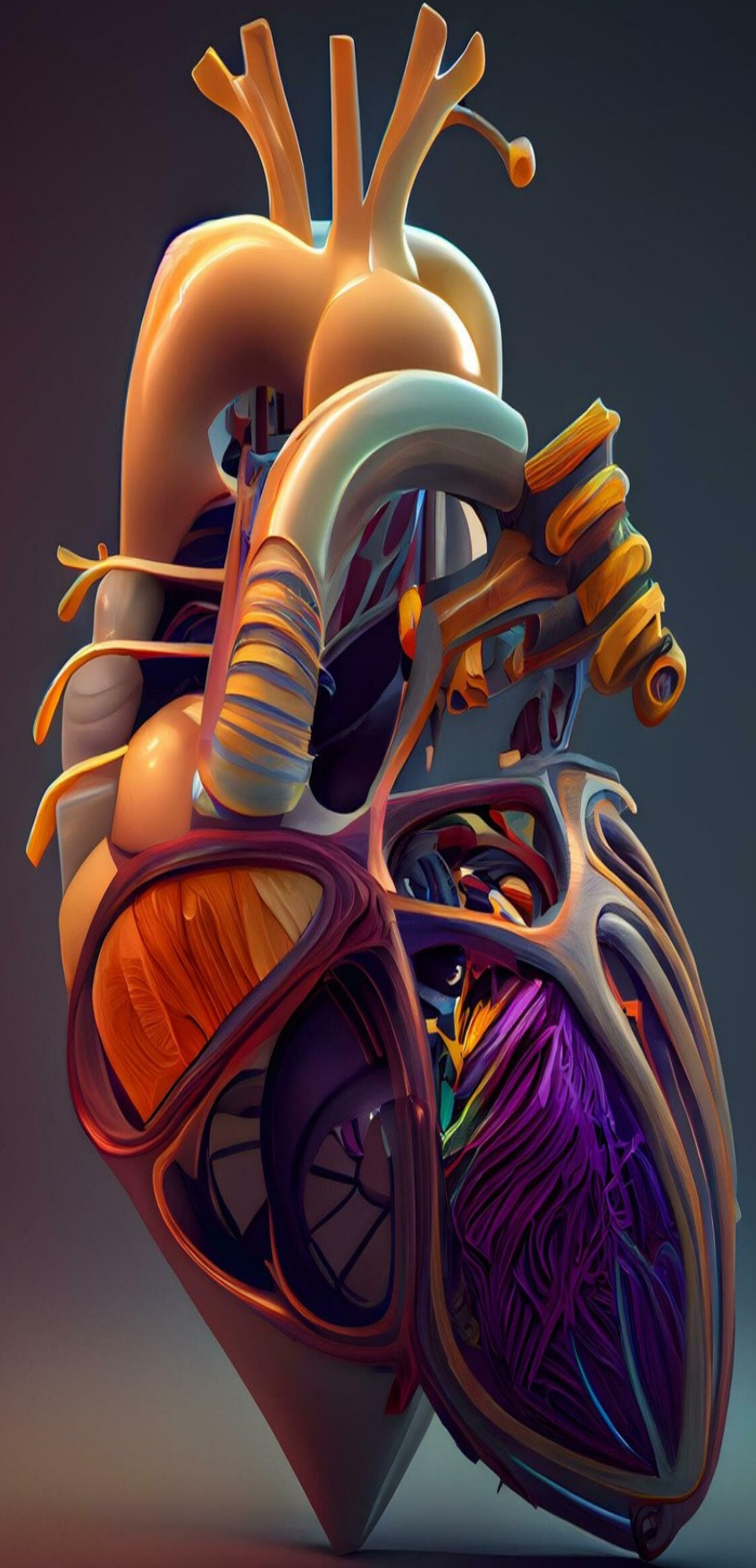


# Investigation of Risk Factors for Acute Coronary Syndrome in Geriatric Patients

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# **PLAN**

**1) Introduction**

**2) Purpose**

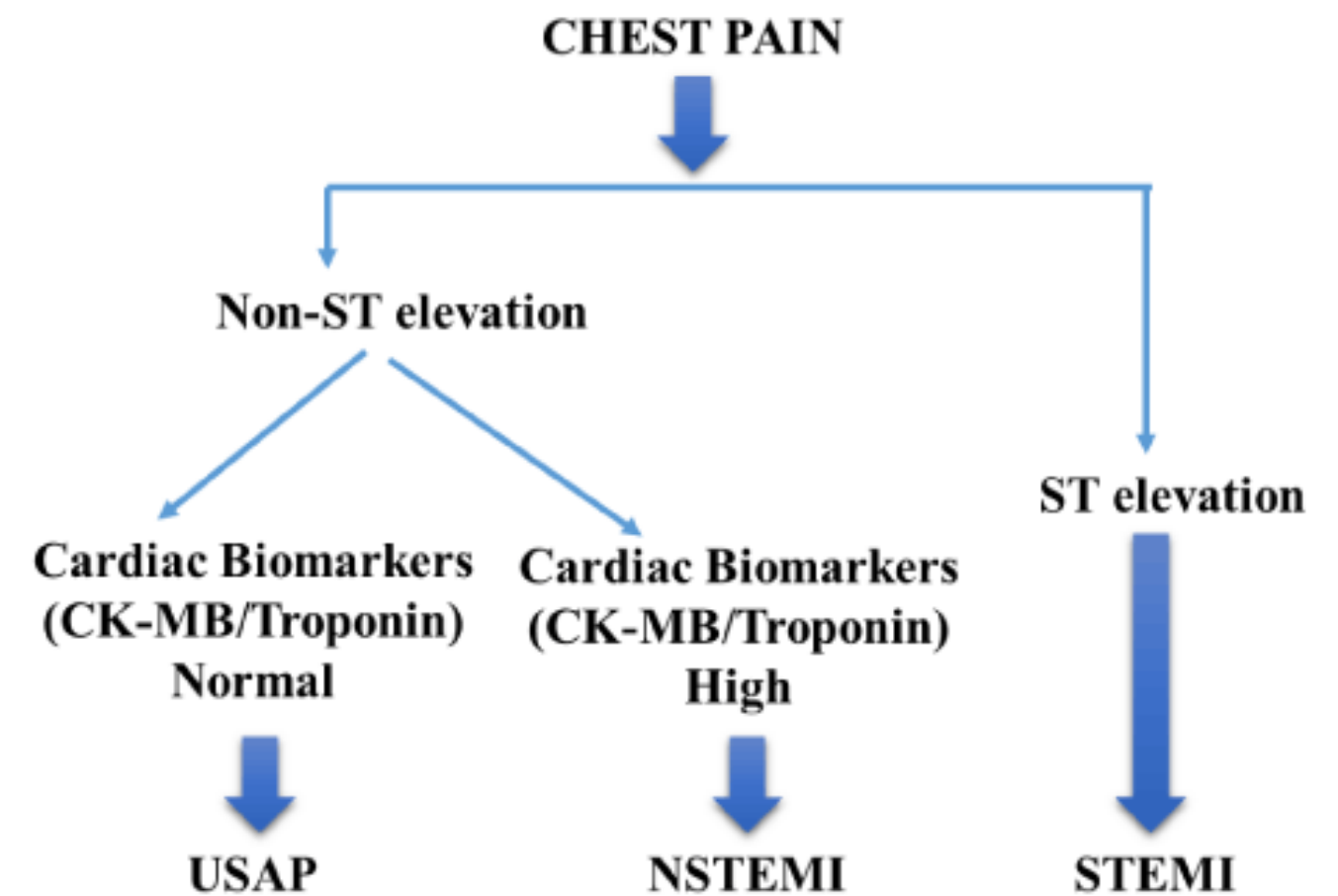
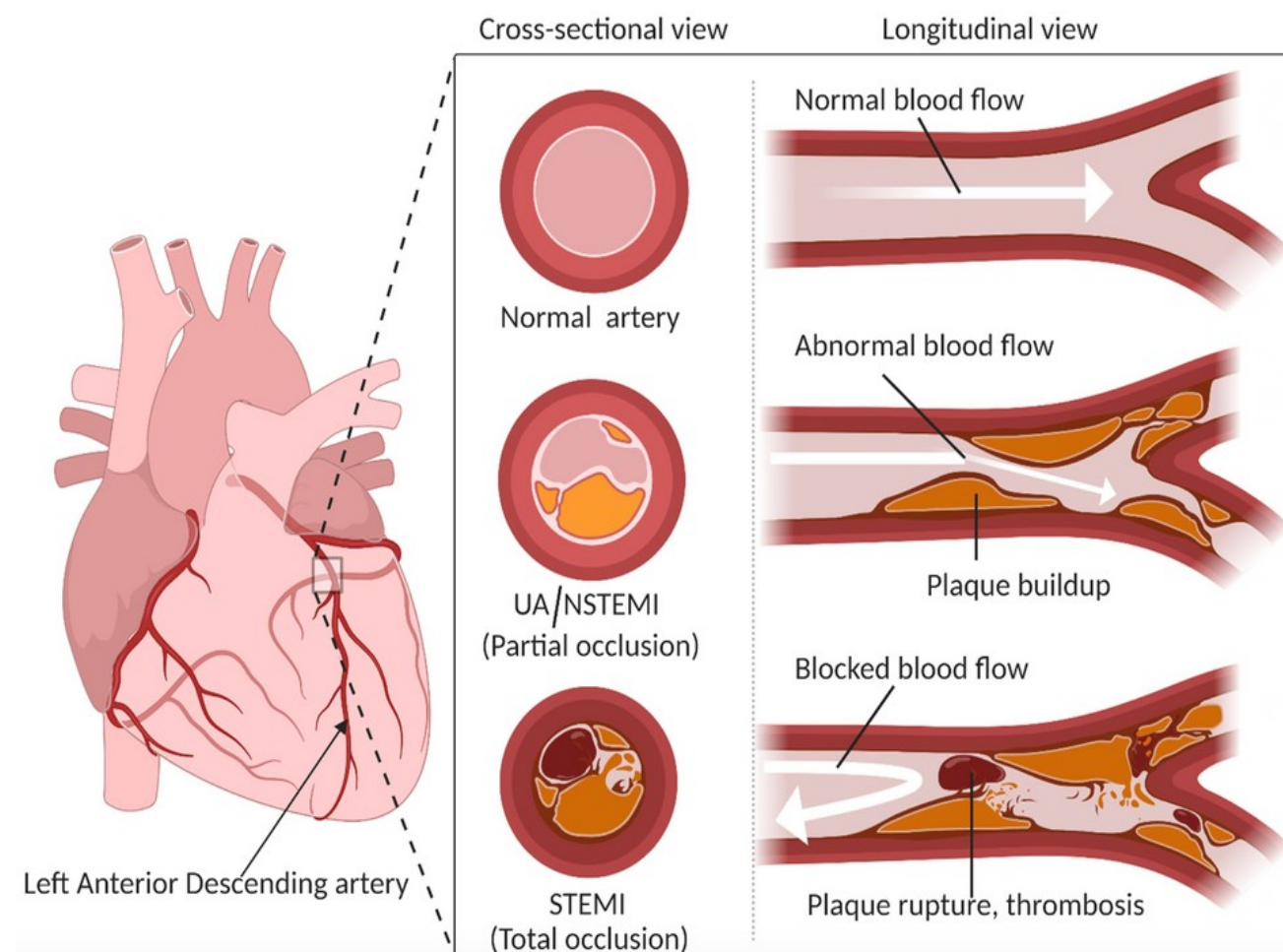
**3) Material and Method**

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**5) Conclusion**

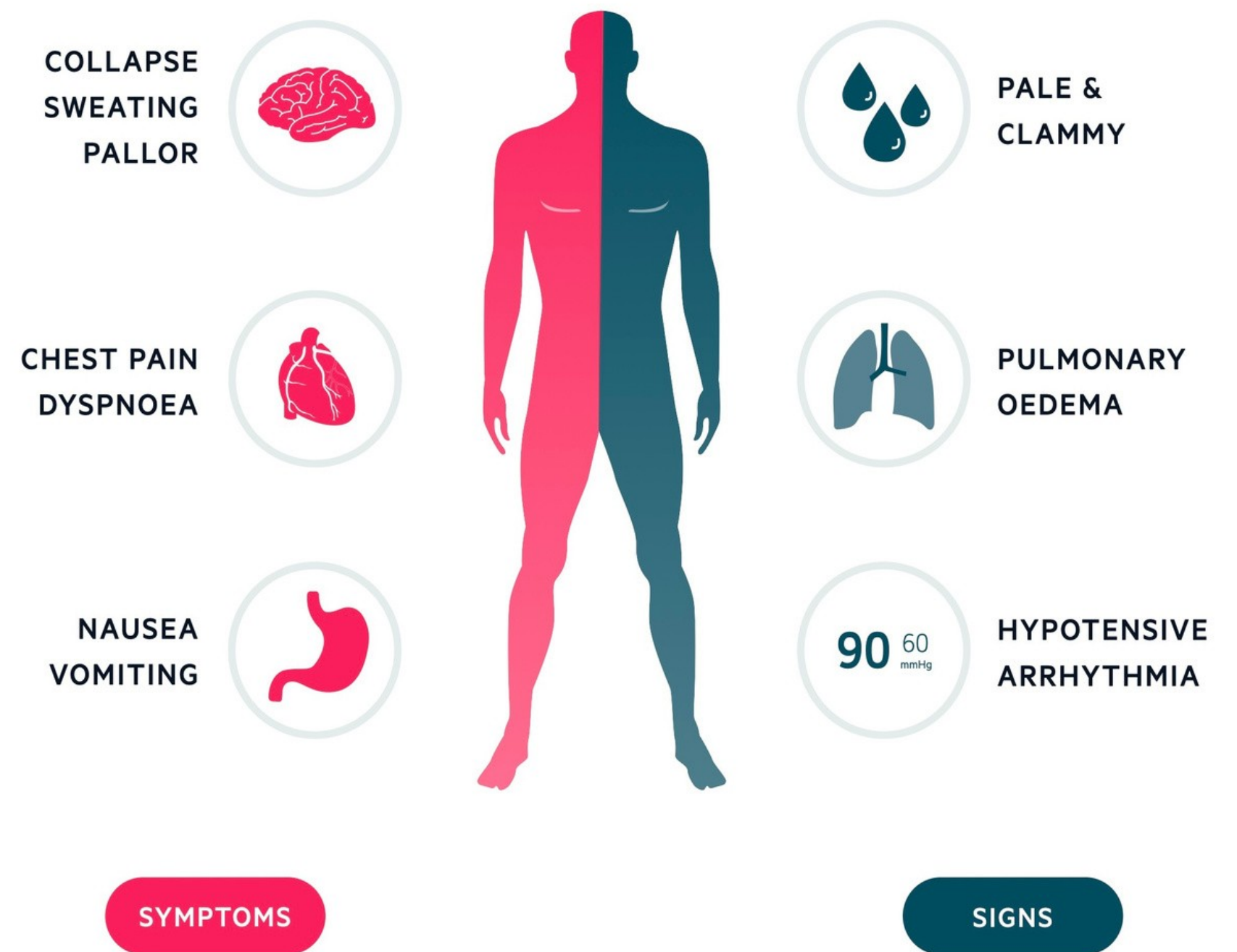
# Introduction

Acute coronary syndrome is a term that describes a range of conditions related to sudden, reduced blood flow to the heart. These conditions include a heart attack and unstable angina.



The symptoms of acute coronary syndrome usually begin suddenly. They include:

- Chest pain or discomfort.
- Pain that starts in the chest and spreads to other parts of the body.
- Nausea or vomiting.
- Indigestion.
- Shortness of breath, also called dyspnea.
- Sudden, heavy sweating.
- Feeling lightheaded or dizzy.
- Unusual fatigue



# Purpose

The aim of our study is to investigate modifiable risk factors and identify significant factors for the geriatric patient group that is at great risk for acute coronary syndrome. The effects of modifiable risk factors on mortality have been investigated.

# Material and Method

In order to systematically collect data, we first questioned the patients' personal information, demographic information, diagnosis, time of diagnosis, ECG findings and developing complications. Taking previous studies as a reference, considering the difference between the means as 0.2 units and the standard deviations as 0.47 and 0.6, respectively, the sample size was determined as at least  $n = 228$  people for 80% **power** at the 95% confidence level and 0.05 significance level.

**Approval of the ethics committee dated 03.05.2023 and  
numbered 09**

**Selection of the patients who applied to the emergency  
department for acute coronary syndrome between 01.01.2022  
and 31.12.2022**

**Reviewing the geriatric patients with acute coronary  
syndrome**

**Recording the demographic, clinical and laboratory  
findings of the patients in the excel file**

**Calculating the patient's GRACE Scores**

# **Material and Method**

**GRACE ACS Risk Model**  
Global Registry of Acute Coronary Events

At Admission (in-hospital/to 6 months) | At Discharge (to 6 months)

Age:

HR:

SBP:

Creat.:

CHF:

Cardiac arrest at admission  
 ST-segment deviation  
 Elevated cardiac enzymes/markers

Probability of	Death	Death or MI
In-hospital	<input type="text" value="--"/>	<input type="text" value="--"/>
To 6 months	<input type="text" value="--"/>	<input type="text" value="--"/>

Calculator | Instructions | GRACE Info | References | Disclaimer

A scoring system used to determine in-hospital, 6th month and 3rd year mortality of Acute Coronary Syndrome patients. Score to determine age, heart rate, systolic blood pressure, creatinine level, degree of heart failure, It is calculated according to the parameters of whether there is cardiac arrest at presentation, ST segment change, and troponin elevation.



# Material and Method

## Inclusion Criteria

Older than 65 years of age

Diagnosed with Acute Coronary Syndrome

Patients whose data can be accessed

## Exclusion Criteria

Younger than 65 years of age

Those diagnosed other than acute coronary syndrome

Patients whose data cannot be accessed

# Results

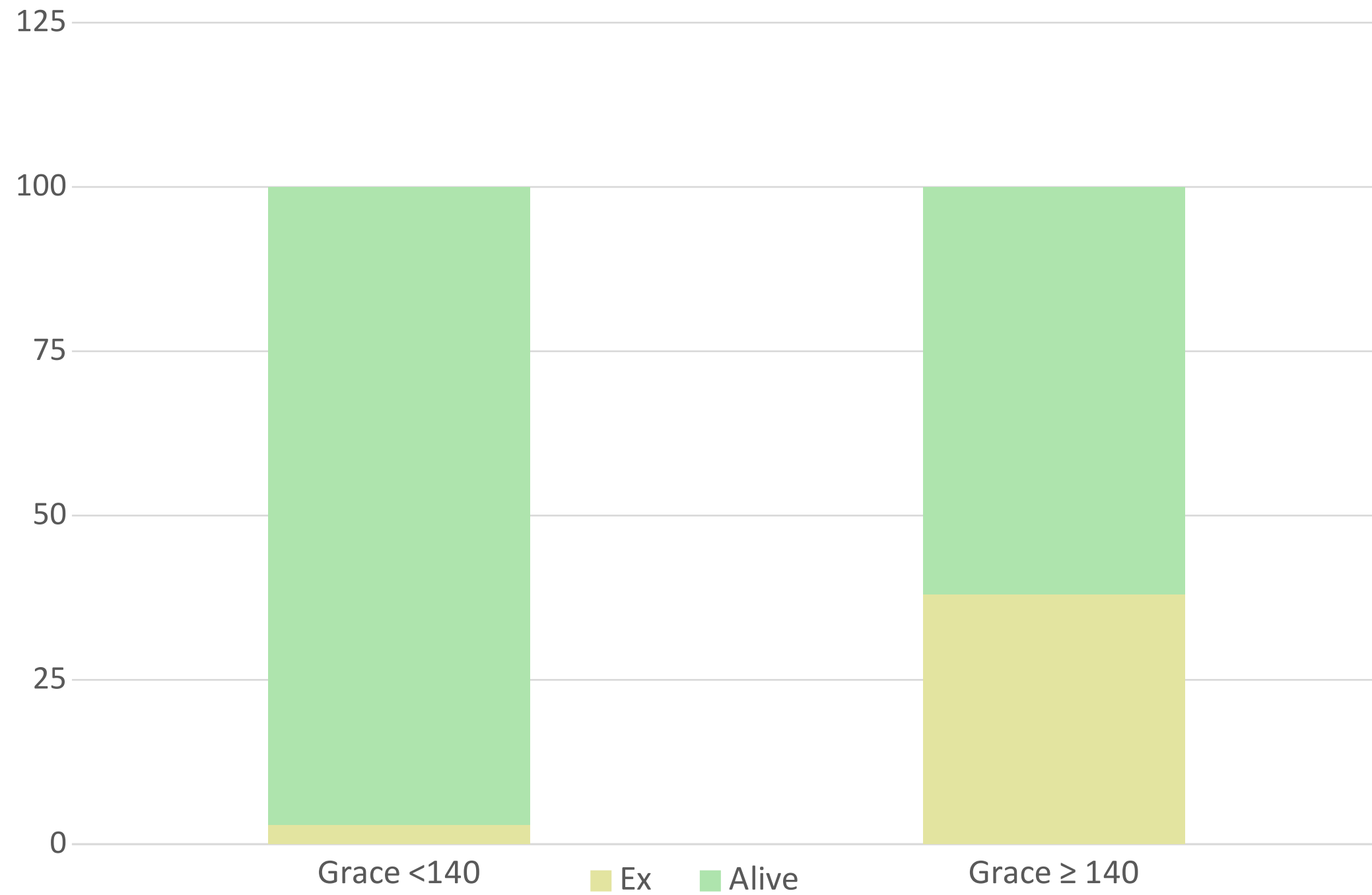
230 males (70.5%) and 96 females (29.5%) were in the study. Troponin values ( $169 \pm 280$ )  
ases and smoking were analyzed to investigate the effects of these factors on mortality. Pat  
GRACE score **below 140** (277, 85%) and those with a GRACE score of **140 and above** (49

# Results

Parameters	Grace Score < 140 (n=277)	Grace Score ≥ 140 (n=49)	P value
Age, years	75.43 ± 7.29	72.33 ± 5.42	
Male, %	71	63	0.269
<b>Comorbidities, %</b>			
Diabetes Mellitus	22.38	26.53	0.525
Hypertension	24.90	28.57	0.585
Coronary Artery Disease	16.96	24.48	0.207
Chronic Obstructive Pulmonary Disease	8.66	10.20	0.727
Cerebrovascular Disease	5.05	6.12	0.757
Chronic Kidney Disease	5.77	6.12	0.924
Congestive Heart Failure	9.38	12.24	0.535
Cancer	5.77	4.08	0.632
<b>Laboratuary findings</b>			
Troponin	77.21 ± 366.33	168.53 ± 279.99	0.790

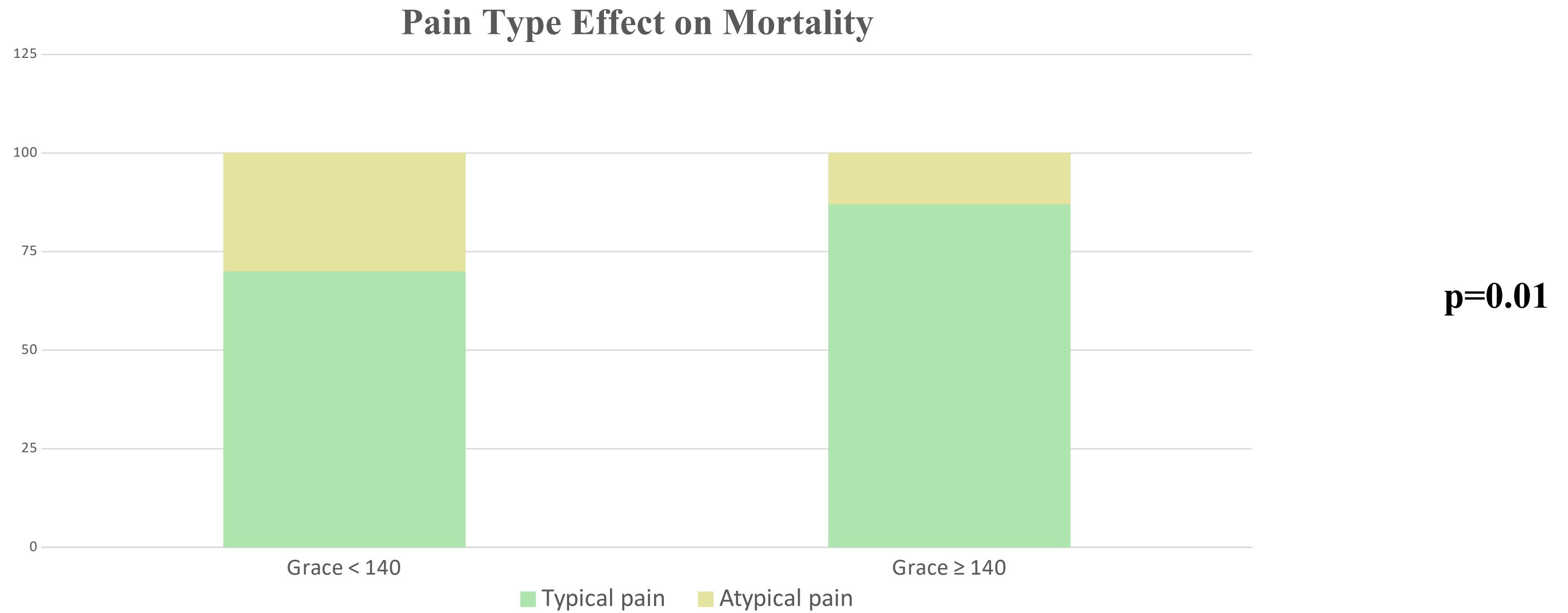
# Results

**Effect of GRACE Score on Mortality**



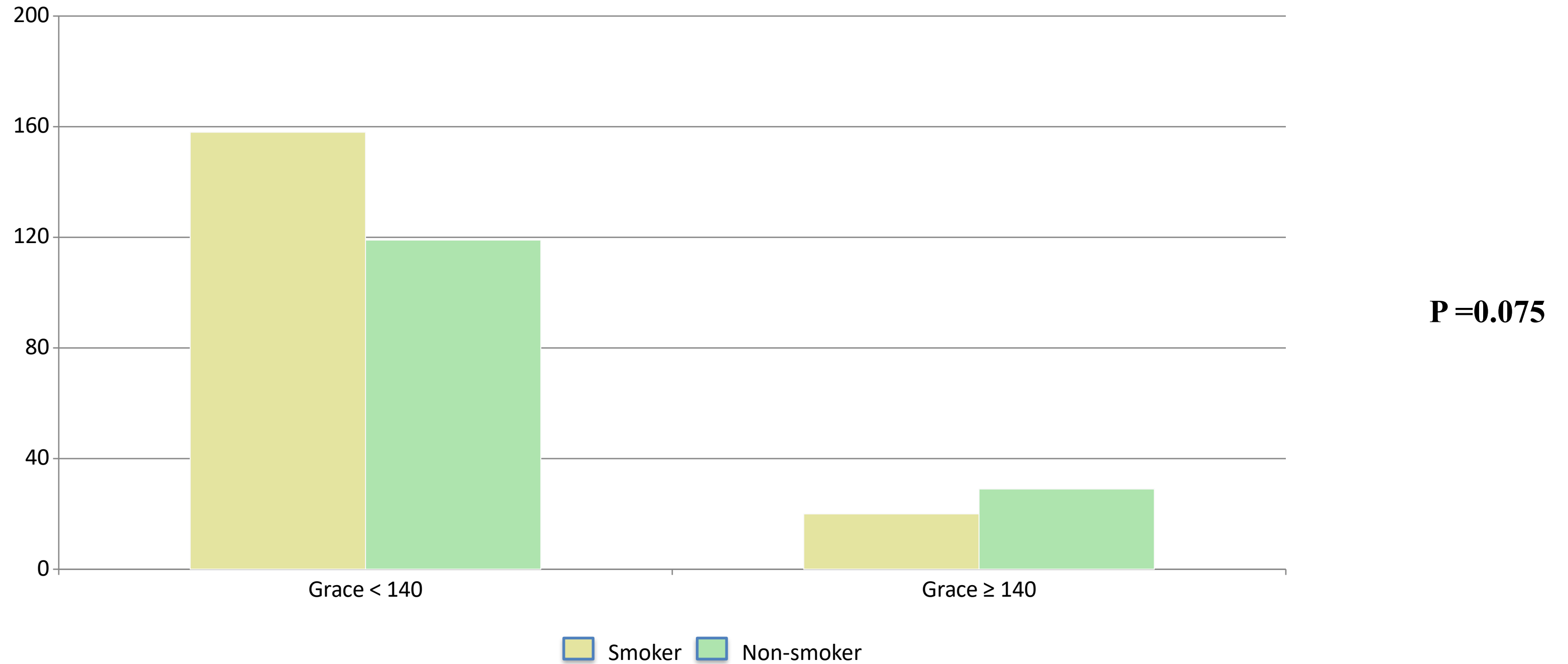
**p=0.005**

# Results



# Results

## Smoking Effect on Mortality



## **Limitations**

Retrospective Study

There isn't enough study about geriatric patients at this argument

## **Powerful Sides**

There is a high sample size

Multiple parameters

# Conclusion

According to the results of the study, statistically significant factors in mortality prognosis are: **GRACE score and patient's presentation with typical/atypical symptoms.** The effect of patient smoking on mortality was statistically more effective than the presence of comorbid diseases.



# Thank You for Your Listening

Do you have any questions ?

Contact Information

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