

# Relatório Completo de Análise Cardíaca

## === Primeiras linhas do dataset ===

age	sex	painType	restingBP	cholesterol	highBloodSugar	restingECG	restingHR	exerciseAngina
STdepression	STslope	coloredVessels	defectType	heartDisease				
63	male	Typical Angina	145.0	233.0	True	Hypertrophy	150.0	False
	2.3	Downsloping	0.0	FixedDefect	False			
67	male	Asymptomatic	160.0	286.0	False	Hypertrophy	108.0	True
	1.5	Flat	3.0	Normal	True			
67	male	Asymptomatic	120.0	229.0	False	Hypertrophy	129.0	True
	2.6	Flat	2.0	ReversibleDefect	True			
37	male	Non-Anginal Pain	130.0	250.0	False	Normal	187.0	False
	3.5	Downsloping	0.0	Normal	False			
41	female	Atypical Angina	130.0	204.0	False	Hypertrophy	172.0	False
	1.4	Upsloping	0.0	Normal	False			

## === Informações do dataset ===

None

## === Valores ausentes antes do tratamento ===

age	0
sex	0
painType	0
restingBP	60
cholesterol	202
highBloodSugar	90
restingECG	2
restingHR	55
exerciseAngina	55
STdepression	62
STslope	309
coloredVessels	611
defectType	486
heartDisease	0

## === Valores ausentes após tratamento ===

age	0
sex	0
painType	0
restingBP	0
cholesterol	0
highBloodSugar	0
restingECG	0
restingHR	0
exerciseAngina	0
STdepression	0
STslope	0
coloredVessels	0

defectType 0  
heartDisease 0

=== Métricas de Desempenho ===

Acurácia: 0.7935  
Precisão: 0.8243  
Recall: 0.7974  
F1-Score: 0.8106

Matriz de Confusão:

[[ 97 26]  
 [ 31 122]]

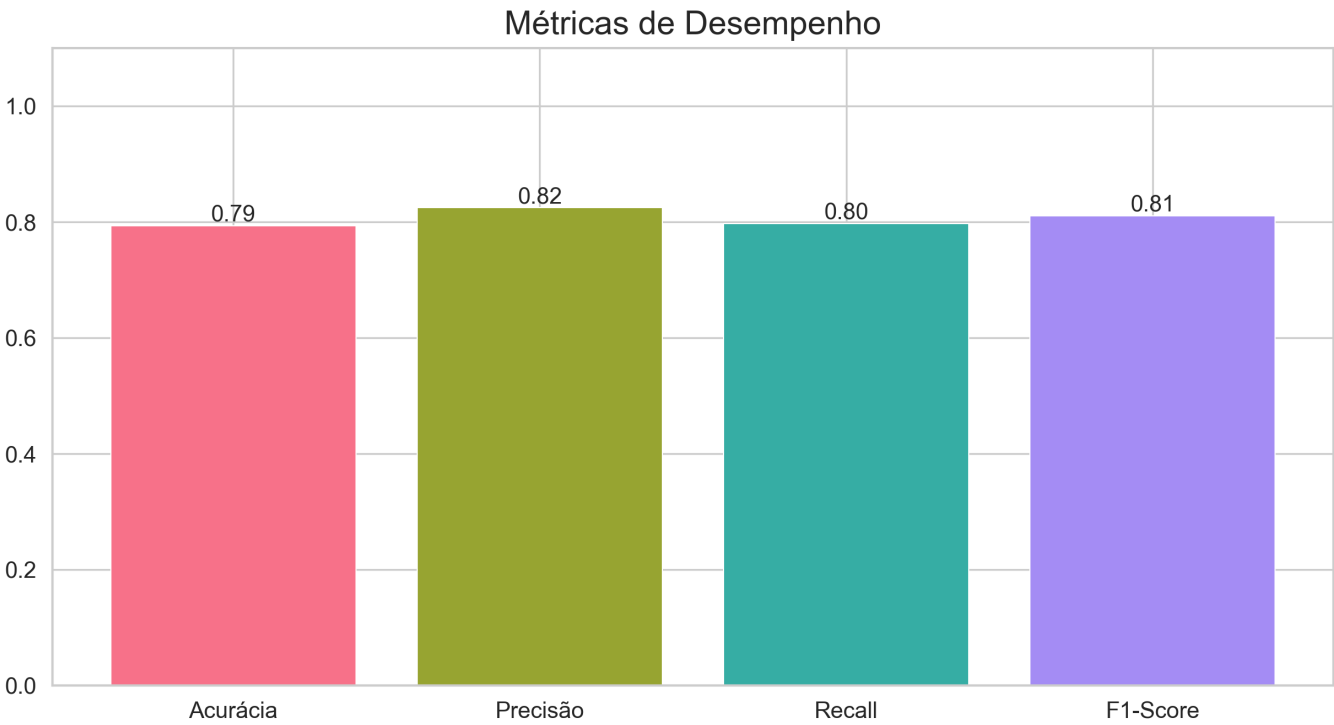
Relatório de Classificação:

	precision	recall	f1-score	support
0	0.76	0.79	0.77	123
1	0.82	0.80	0.81	153
accuracy			0.79	276
macro avg	0.79	0.79	0.79	276
weighted avg	0.79	0.79	0.79	276

=== Validação Cruzada ===

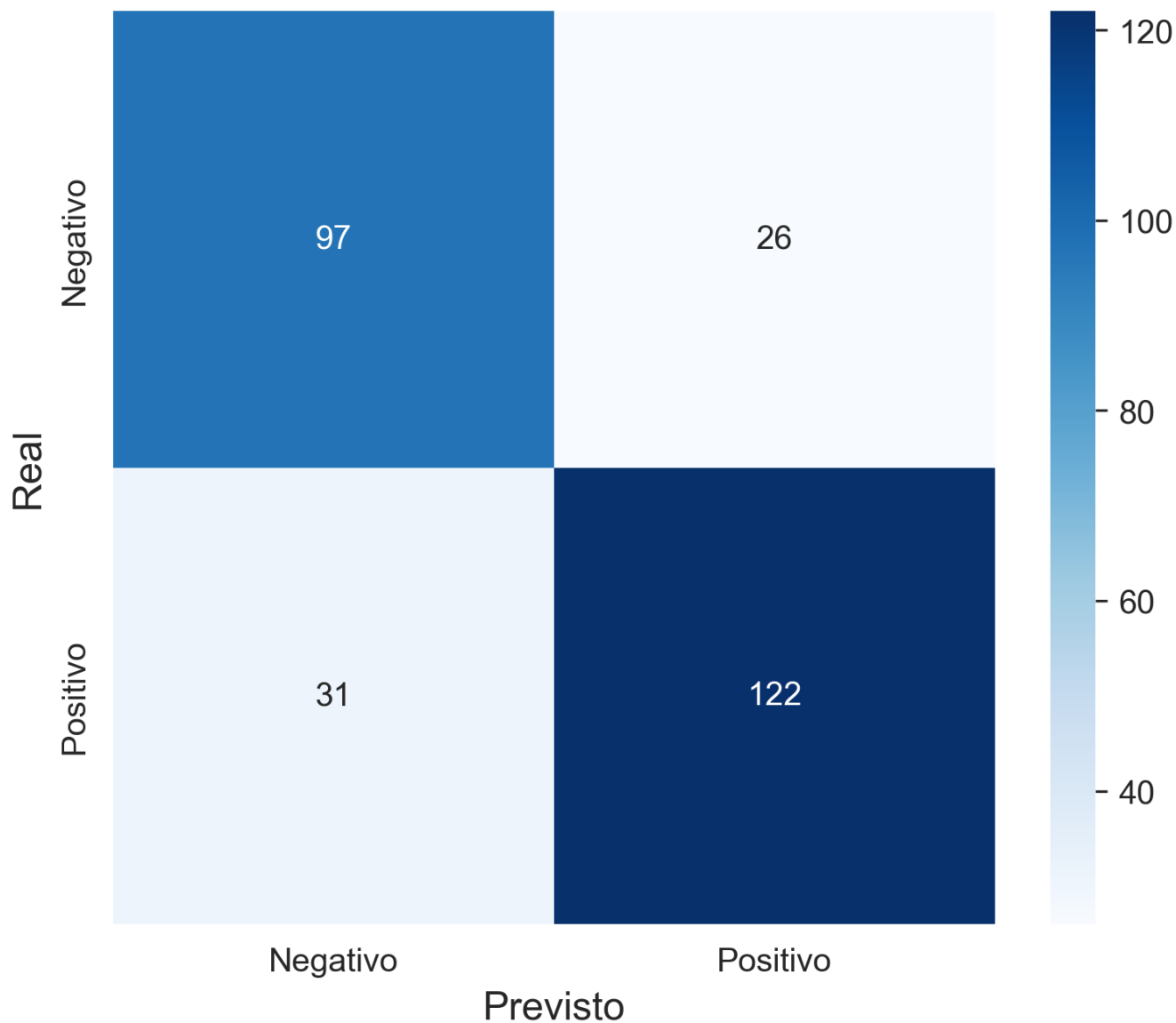
Acurácias: [0.8043 0.7609 0.75 0.8152 0.7446]  
Média: 0.7750  
Desvio padrão: 0.0291

Metrics

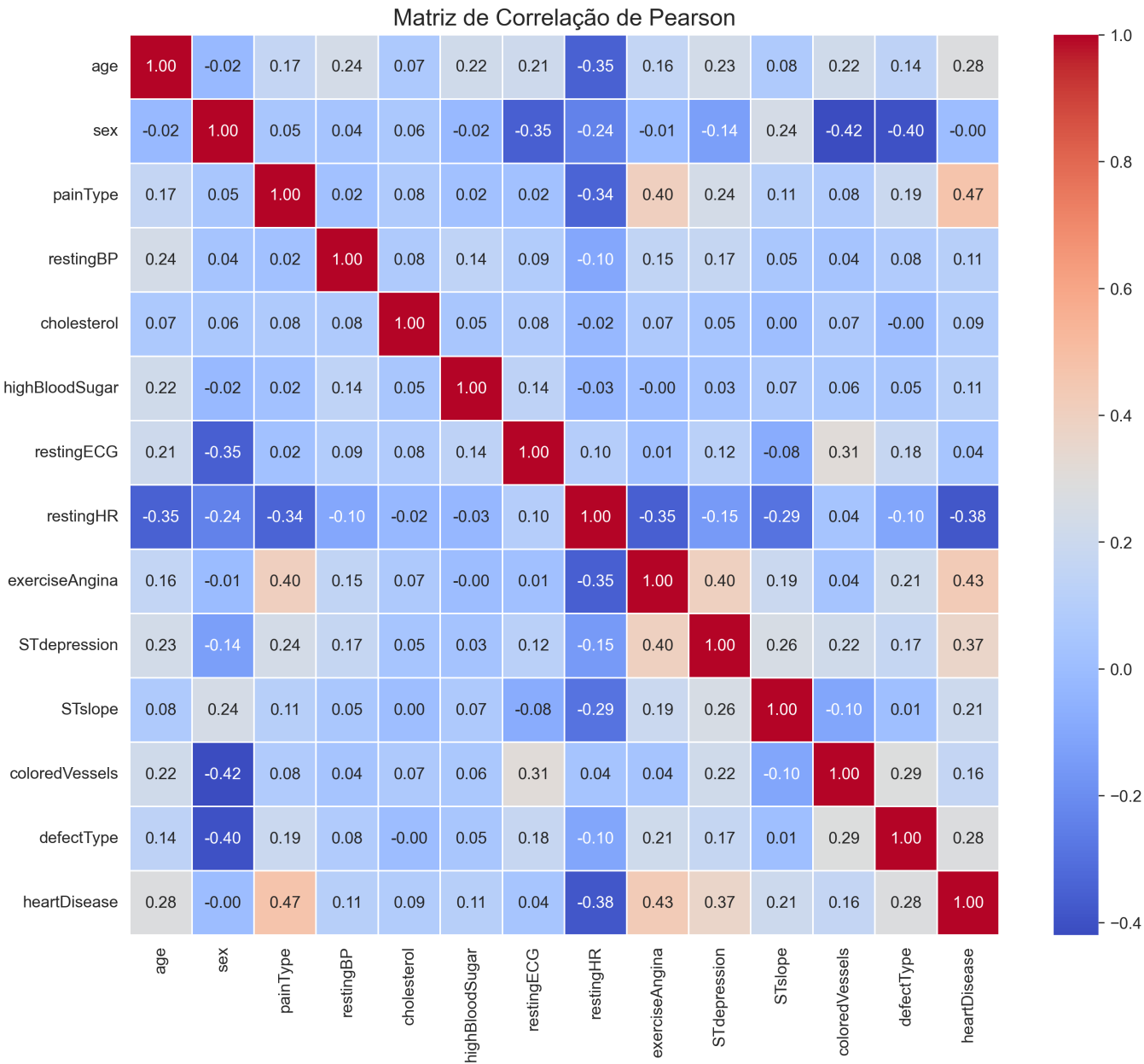


Confusion Matrix

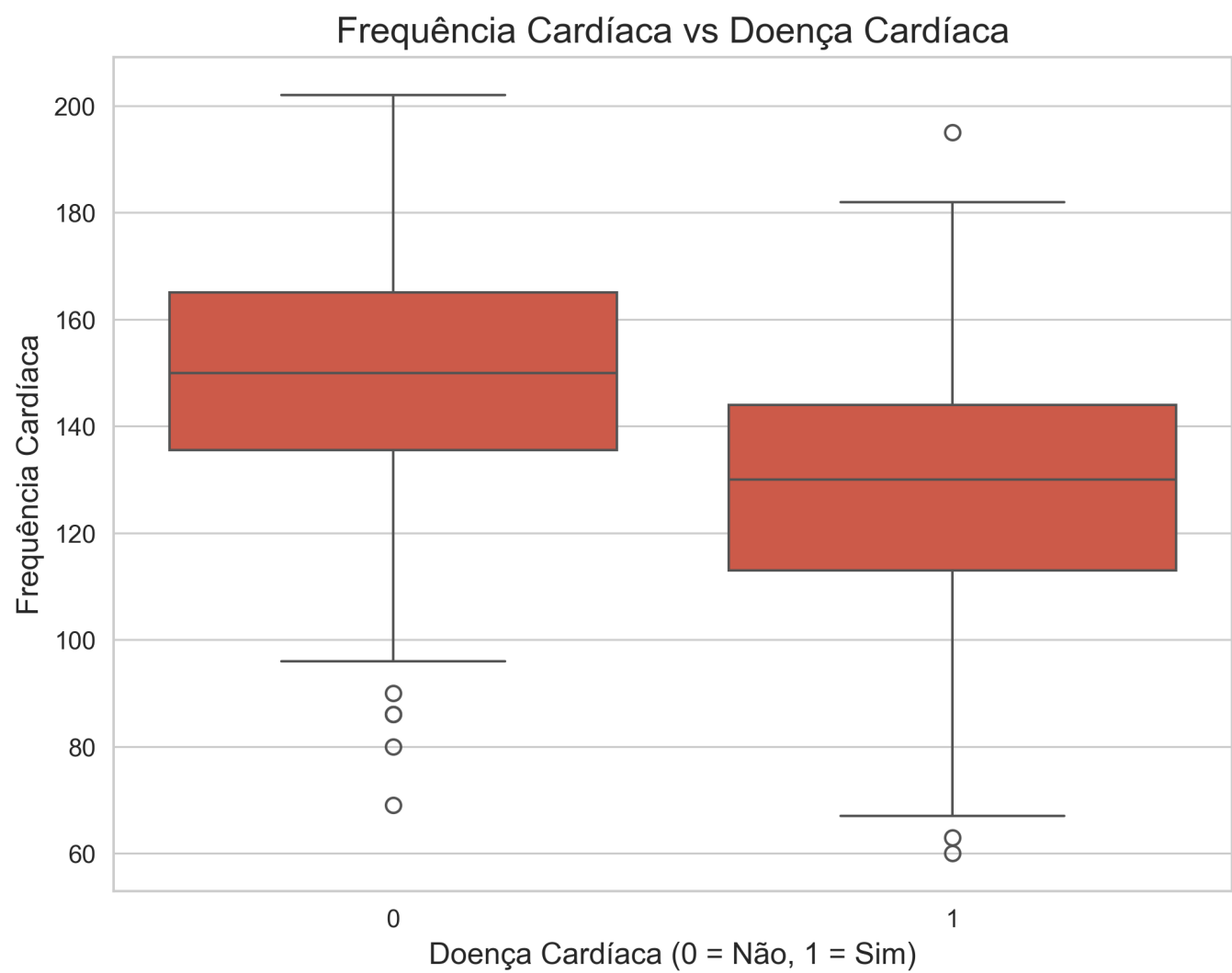
Matriz de Confusão



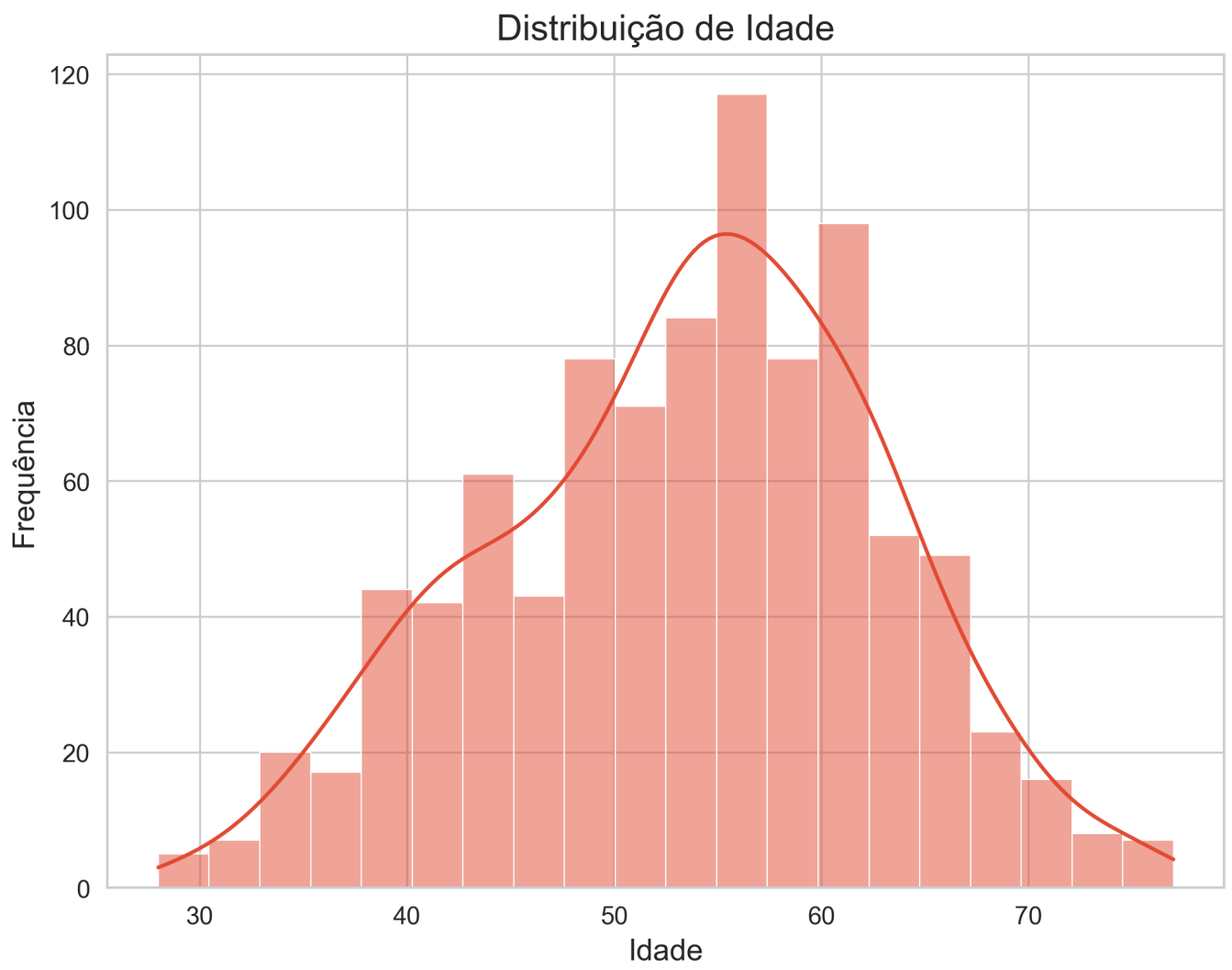
# Correlation Matrix



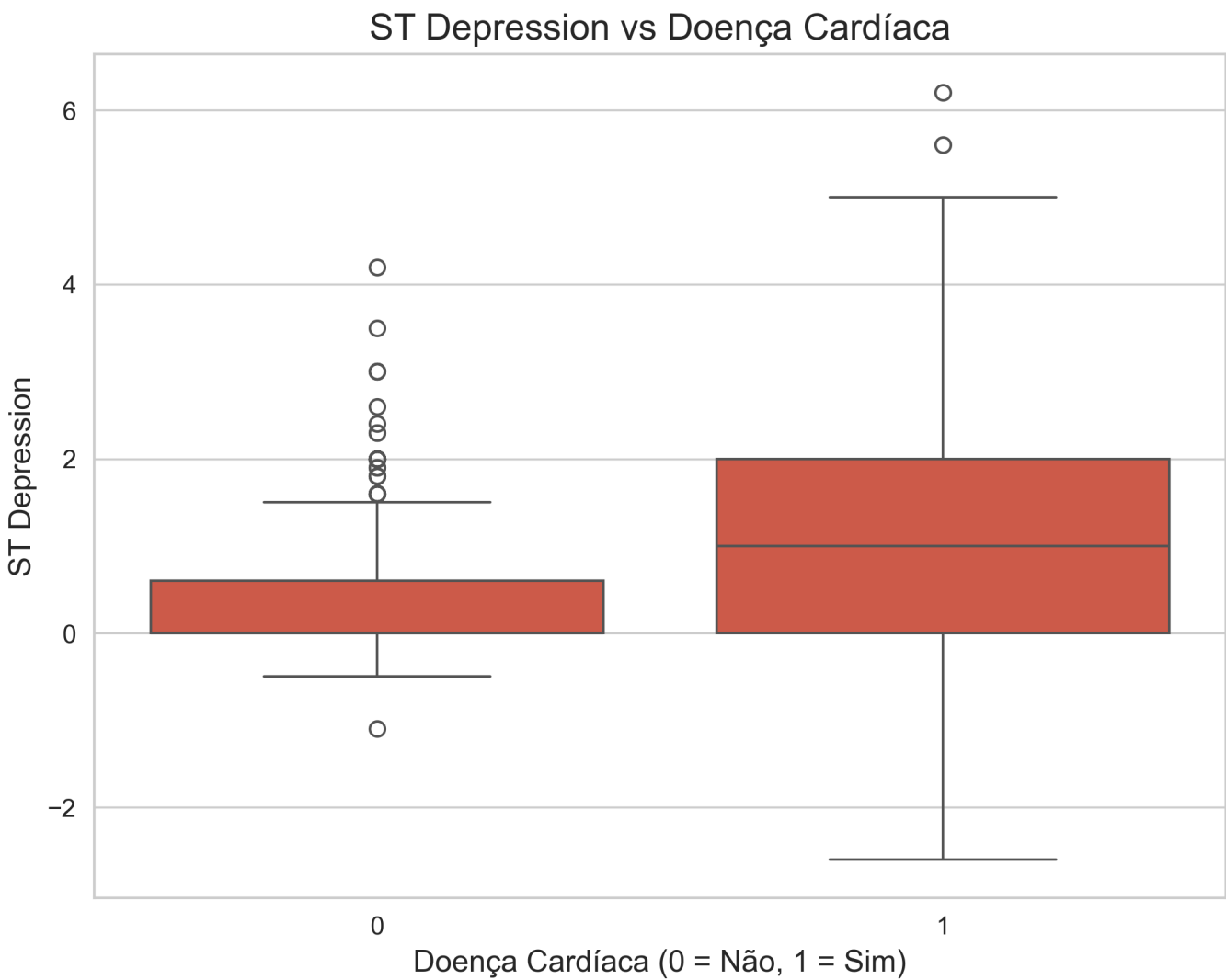
Heart Rate



# Age Distribution



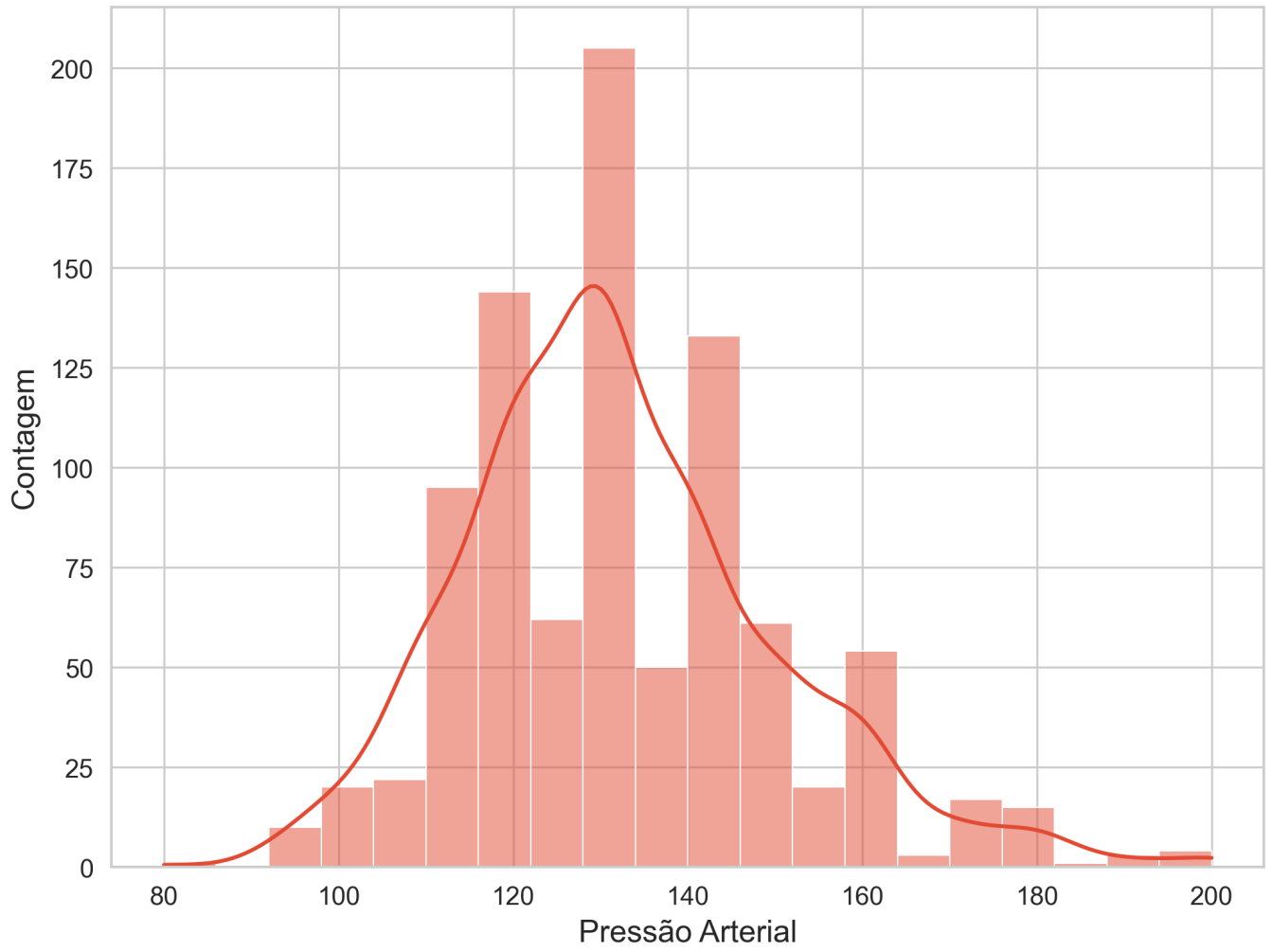
St Depression





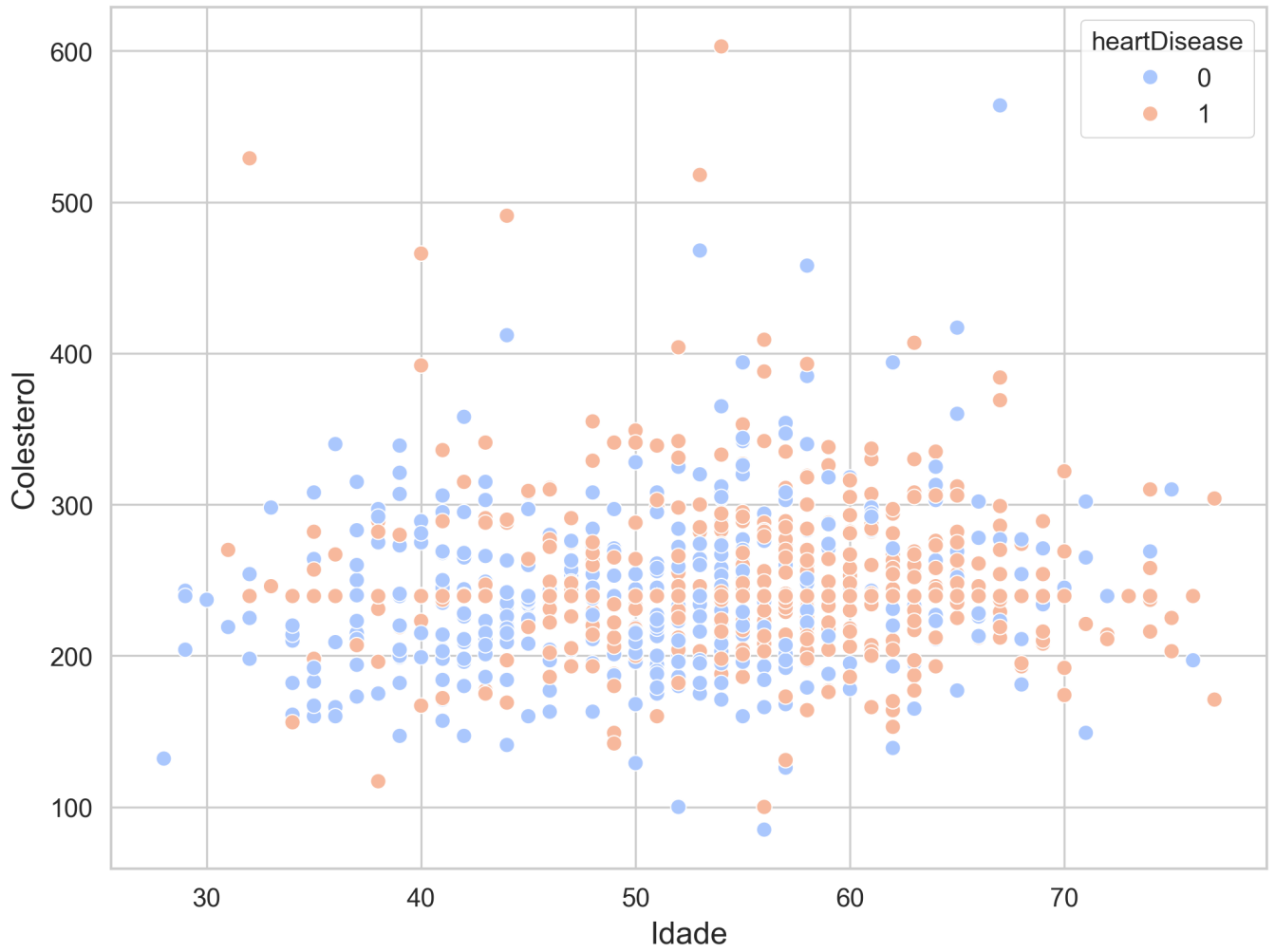
# Blood Pressure

Distribuição da Pressão Arterial

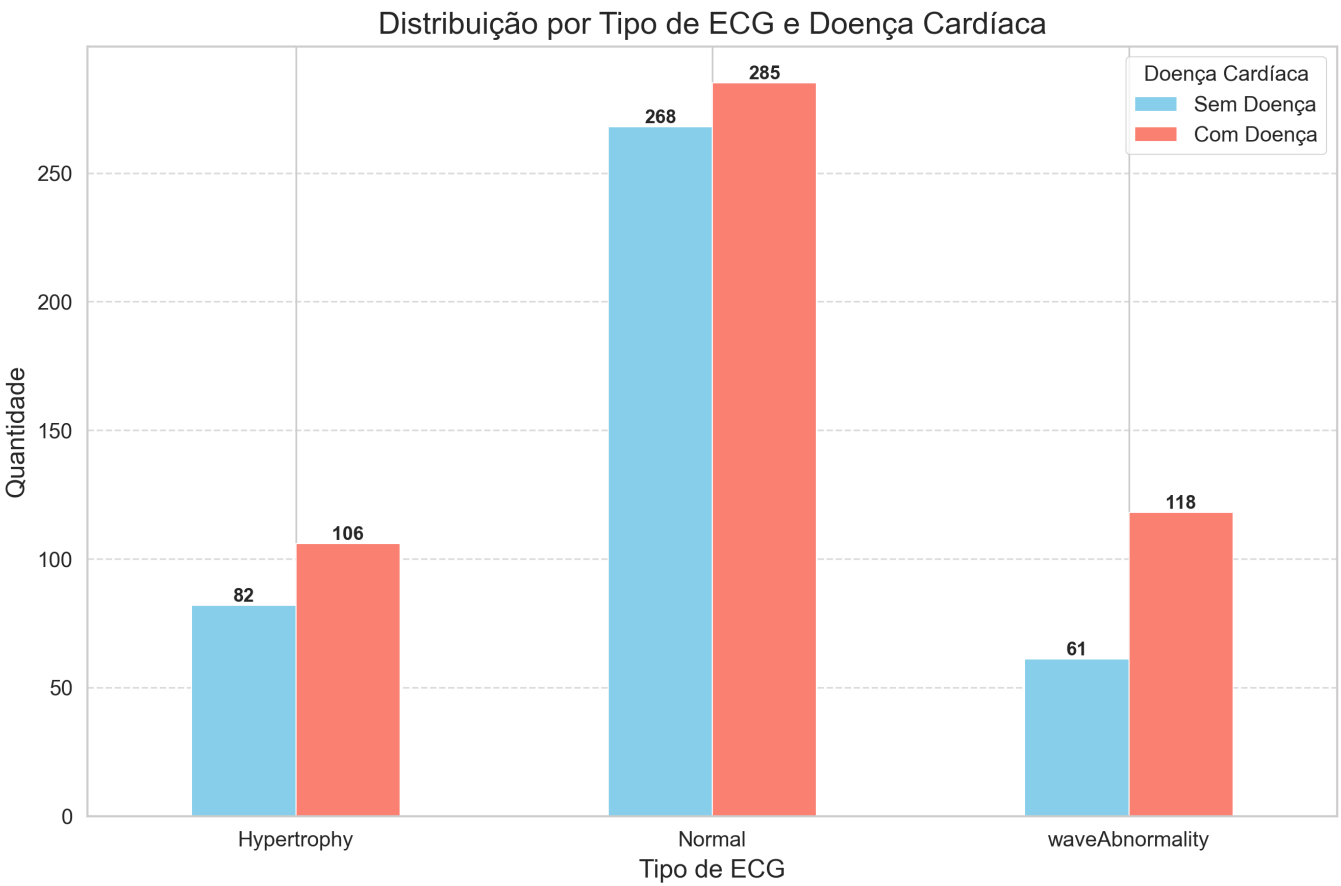


# Age Cholesterol

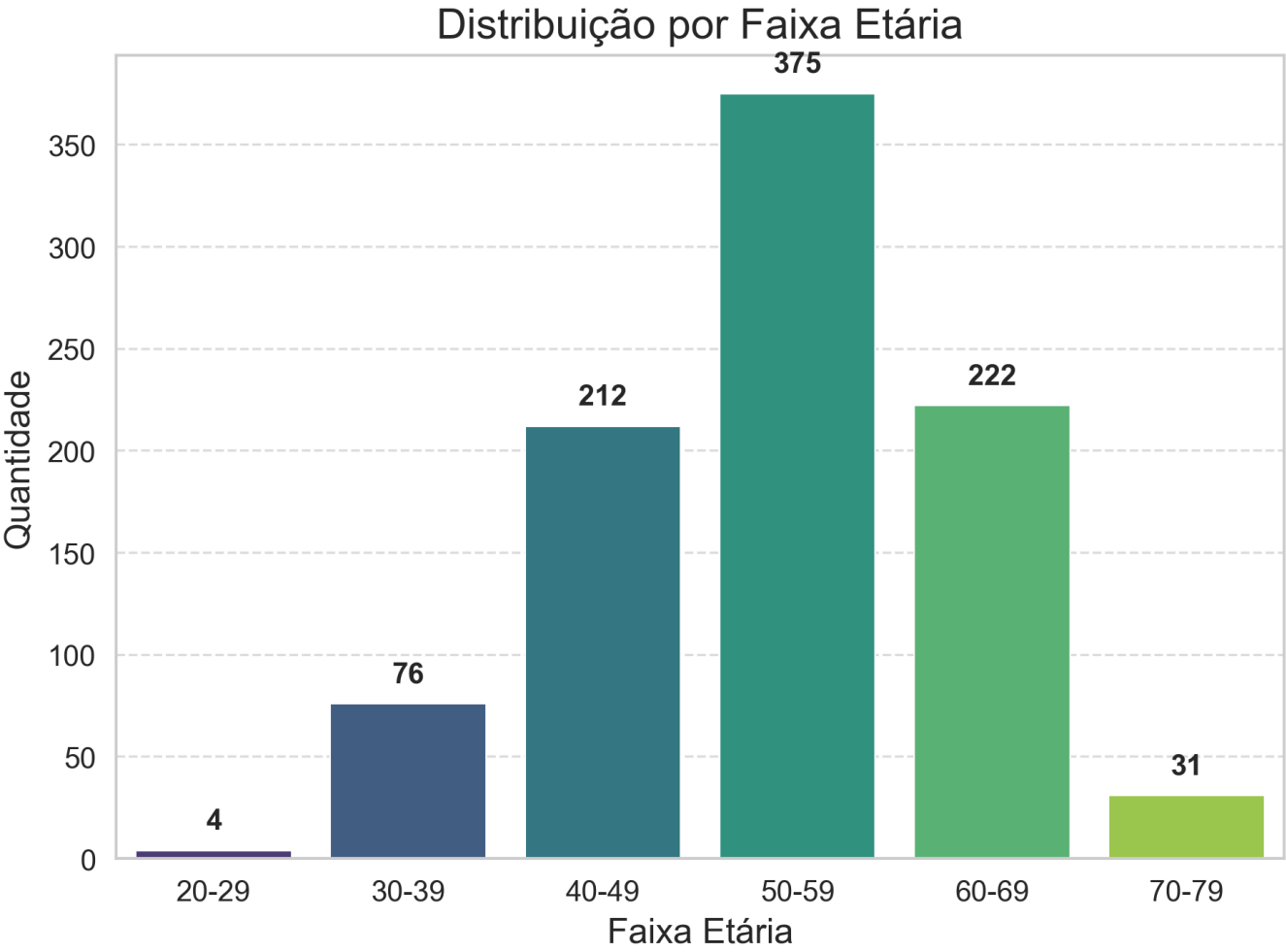
Idade vs Colesterol



# Resting Ecg Disease



Age Distribution Count



# Age Disease Distribution

