



YEDİTEPE UNIVERSITY
FACULTY OF MEDICINE

INTRODUCTION TO CARDIOLOGY PROGRAM AND HISTORY TAKING

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Introduction to Cardiology Program

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Introduction to Cardiology Program

Clinical Capabilities



Clinical Capabilities

- **Coronary Artery Disease & Acute Coronary Syndromes**
 - Invasive management of acute coronary syndromes
 - Primary and complex percutaneous coronary intervention (PCI)
 - Percutaneous treatment of atherosclerotic coronary artery disease
 - Percutaneous closure of coronary artery fistulas
- **Structural & Valvular Heart Disease**
 - Transcatheter aortic valve implantation (TAVI)
 - Mitral and tricuspid transcatheter edge-to-edge repair (TEER)
 - Percutaneous closure of atrial and ventricular septal defects (ASD/VSD)
 - Percutaneous closure of paravalvular leaks
 - Comprehensive evaluation and management of valvular heart disease

Clinical Capabilities

• **Heart Failure & Cardiomyopathies**

- Diagnosis of acute and chronic heart failure
- Guideline-directed medical therapy
- Device-based heart failure therapy
 - Cardiac Implantable Electronic Devices (CIEDs)
 - Implantable cardioverter-defibrillator (ICD) implantation
 - Cardiac resynchronization therapy (CRT)
- Diagnosis and management of cardiomyopathies

• **Cardiovascular Imaging**

- Transthoracic echocardiography (TTE)
- Transesophageal echocardiography (TEE)
- Stress echocardiography
- Echocardiographic guidance of structural heart interventions

Clinical Capabilities

- **Cardiac Electrophysiology & Arrhythmias**
 - Electrophysiological studies
 - Catheter ablation of cardiac arrhythmias
 - Management of bradyarrhythmias and tachyarrhythmias
 - Evaluation and management of syncope
 - Tilt-Table testing
- **Cardiac Implantable Electronic Devices (CIEDs)**
 - Conventional transvenous pacemaker implantation
 - Leadless pacemaker implantation

Clinical Capabilities

- **Peripheral Vascular & Aortic Interventions**
 - Percutaneous peripheral arterial interventions
 - Endovascular aneurysm repair (EVAR)
 - Thoracic endovascular aortic repair (TEVAR)
 - Management of vascular access complications
 - Percutaneous treatment of pseudoaneurysms
- **Stroke Prevention in Atrial Fibrillation**
 - Assessment of thromboembolic and bleeding risk
 - Anticoagulation management
 - Percutaneous left atrial appendage (LAA) closure

Clinical Capabilities

- **Hypertension & Preventive Cardiology**
 - Diagnosis and management of arterial hypertension
 - Management of dyslipidemia
 - Cardiovascular risk assessment and risk-factor modification
- **Pulmonary Hypertension**
 - Diagnostic evaluation and classification of pulmonary hypertension
 - Medical management and longitudinal follow-up
 - Assessment of right ventricular function

Clinical Capabilities

- **Adult Congenital Heart Disease**
 - Diagnosis and longitudinal management of adult congenital heart disease
 - Hemodynamic assessment
 - Percutaneous treatment of selected congenital cardiac defects
- **Cardio-Oncology**
 - Cardiovascular risk assessment in patients with cancer
 - Detection and management of cancer therapy-related cardiovascular toxicity
 - Cardiovascular monitoring during anticancer therapy



History Taking



Components of Medical History

- 
- Patient Identification ,
 - Chief Complaint
 - History of Present Illness
 - Past Medical History
 - Family History
 - Current Medications
 - Lifestyle & Habits
 - Social & Marital Status

Sample Patient Presentation

- 
- Patient Identification
 - 78-year-old male
 - Chief Complaint
 - Chest pain
 - History of Present Illness
 - Chest pain started 3 hours ago.
 - The patient describes a squeezing sensation in his chest.
 - The pain improved approximately 15 minutes ago and has almost completely resolved.
 - Past Medical History
 - Underwent urgent coronary angiography 2 years ago.
 - Electronic medical records indicate coronary stent implantation, echocardiography 2 year ago showed a LVEF 40% with mild mitral regurgitation.
 - Known hypertension.
 - Family History
 - No relevant family history identified. (May be clinically important in other patients.)
 - Medications
 - Ecopirin 81mg p.o. one daily (acetylsalicylic acid)
 - Excaliba 10/40 p.o. once daily (amlodipine/olmesartan). No other regular medications.
 - Lifestyle & Habits
 - Current smoker.
 - Social & Marital Status
 - No relevant information for the current presentation. (May be clinically important in other patients.)

What have we learned from the history?



Important Message!

- If you cannot formulate a differential diagnosis after obtaining the patient's history, further testing alone is unlikely to lead you to the correct diagnosis.
- History taking is the cornerstone of clinical reasoning.

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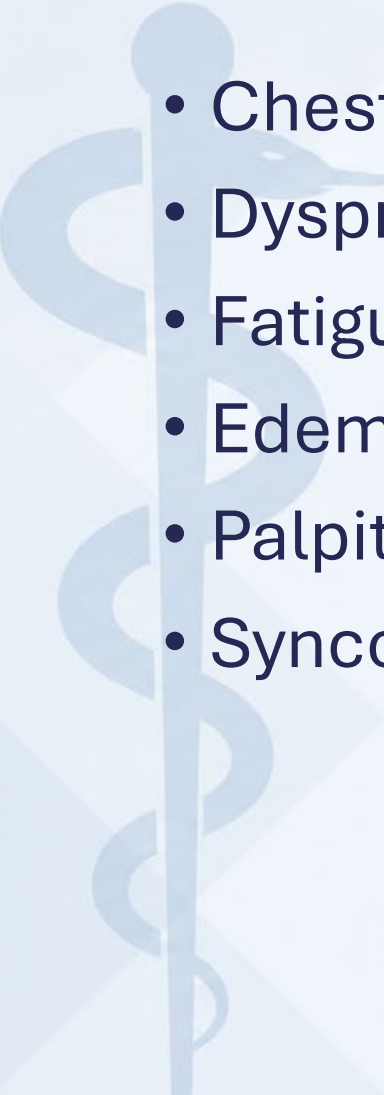




History Taking

Major Symptoms of Cardiology

Major Symptoms of Cardiology

- 
- Chest discomfort
 - Dyspnea
 - Fatigue
 - Edema
 - Palpitations
 - Syncope

Chest discomfort

- When you talk to a cardiologist about a patient with chest discomfort the first question you will be asked is:
 - Is his/her chest discomfort/chest pain typical

What is typical angina?



Journal of the American College of
Cardiology

Volume 1, Issue 2, Part 1, February 1983, Pages 574-575



A clinically relevant classification of chest discomfort

George A. Diamond MD

What is typical angina?

- Is the discomfort substernal?
 - The word "substernal" is intended to be anatomically precise. It therefore excludes the epigastrium, the parasternal area or a transthoracic distribution unless a substernal component is also present.
- Is it precipitated by exertion?
 - The word "precipitated" is intended to imply a general-but not exclusive-causal relation to physical activity. Thus, discomfort which is clearly, but only sometimes, related to exertion is considered to be «exertional».
- Is there prompt relief by rest or nitroglycerin?
 - The word "prompt" is considered to imply a time span ranging from approximately 30 seconds to 10 minutes.
 - The word "relief" is intended again to imply a general causal relation either to cessation of physical activity or to administration of sublingual nitrates

What is typical angina?

- When all three questions are judged by the physician to have been answered in the affirmative, the discomfort is interpreted as «typical angina».
- When only two of the three answers are affirmative, the discomfort is interpreted as «atypical angina».
- When fewer than two answers are affirmative, the discomfort is interpreted as «nonanginal».

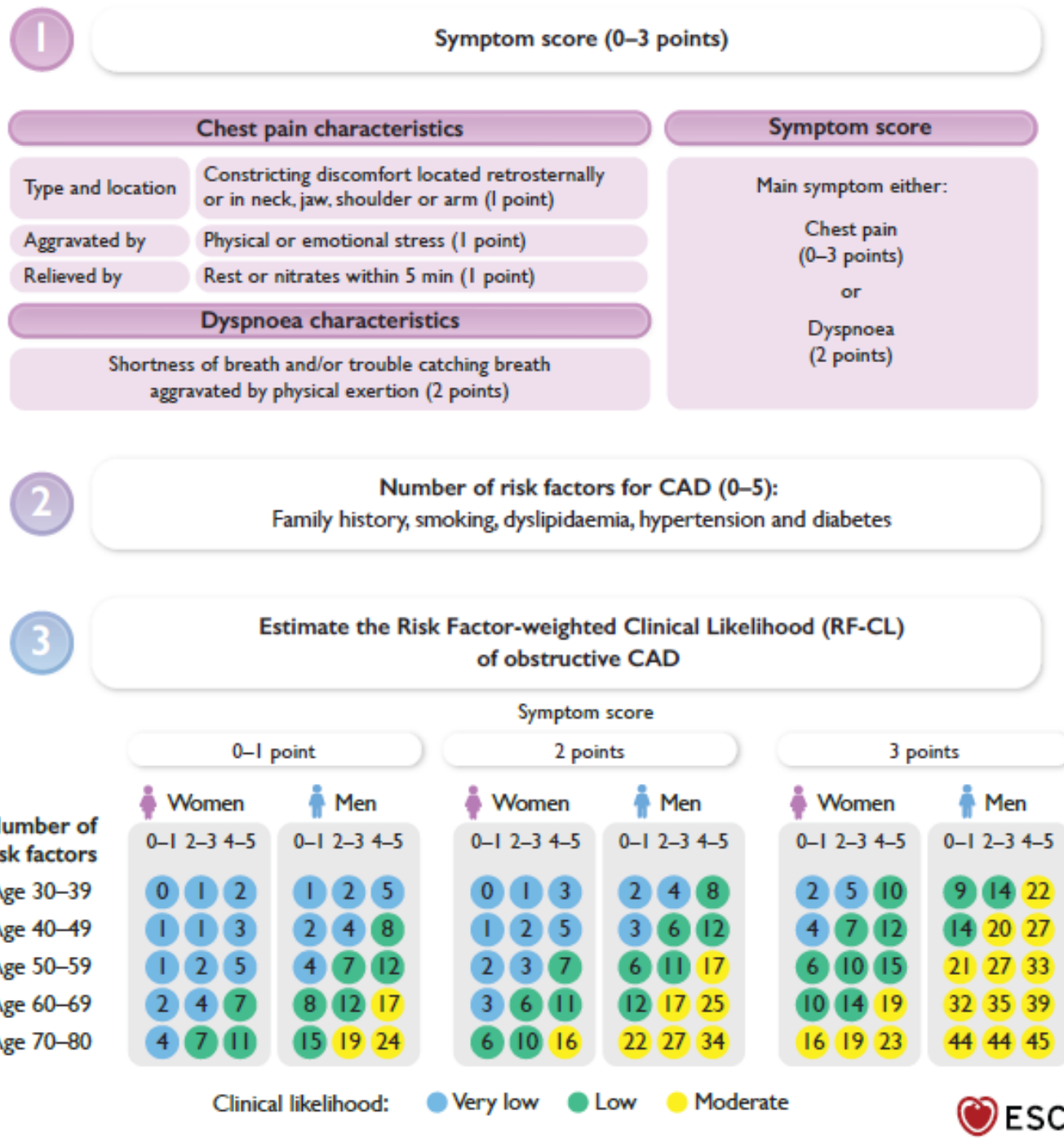
2019 ESC Guidelines for the diagnosis and management of chronic coronary syndromes: The Task Force for the diagnosis and management of chronic coronary syndromes of the European Society of Cardiology (ESC)

Age	Typical		Atypical		Non-anginal		Dyspnoea ^a	
	Men	Women	Men	Women	Men	Women	Men	Women
30–39	3%	5%	4%	3%	1%	1%	0%	3%
40–49	22%	10%	10%	6%	3%	2%	12%	3%
50–59	32%	13%	17%	6%	11%	3%	20%	9%
60–69	44%	16%	26%	11%	22%	6%	27%	14%
70+	52%	27%	34%	19%	24%	10%	32%	12%

2024 ESC Guidelines for the management of chronic coronary syndromes

Developed by the task force for the management of chronic coronary syndromes of the European Society of Cardiology (ESC)

ESC GUIDELINES



Acute chest discomfort

- Described as pain, pressure, tightness, heaviness, or burning is the leading presenting symptom prompting consideration of the clinical diagnosis of ACS and the initiation of testing aligned with specific diagnostic algorithms.
- **Chest pain descriptors should be classified as cardiac, possibly cardiac, and likely non-cardiac**
- Chest pain-equivalent symptoms include dyspnoea, epigastric pain, and pain in the left or right arm or neck/jaw.
- The use of the descriptor ‘atypical’ should be avoided.

Dyspnea

- **Positional Pattern**
 - **Exertional dyspnea** — occurs during physical activity
 - **Orthopnea** — dyspnea in the recumbent position
 - **Platypnea** — dyspnea that occurs or worsens on standing
- **Paroxysmal Nocturnal Dyspnea (PND)**
 - Typically occurs **2–4 hours after falling asleep**
 - Severe enough to make the patient **sit upright or stand**
 - Usually subsides gradually over **several minutes**
- **Associated Clues:** Ask the patient's partner about **loud snoring or witnessed apnea** → consider sleep-disordered breathing
- **Sudden-onset dyspnea** → consider **pulmonary embolism**
- **Clinical clue:** The timing, body position, and onset of dyspnea can provide important clues to its underlying cause.

Fatigue

- Onset and functional limitation
- Exertional vs persistent
- Low cardiac output / heart failure
- Anemia, endocrine disease, infection, medication effects etc.

Edema

- Onset and progression
- Unilateral vs bilateral
- Dependent edema
- Associated dyspnea/orthopnea
- Weight gain
- Consider cardiac **and non-cardiac causes**

Palpitations

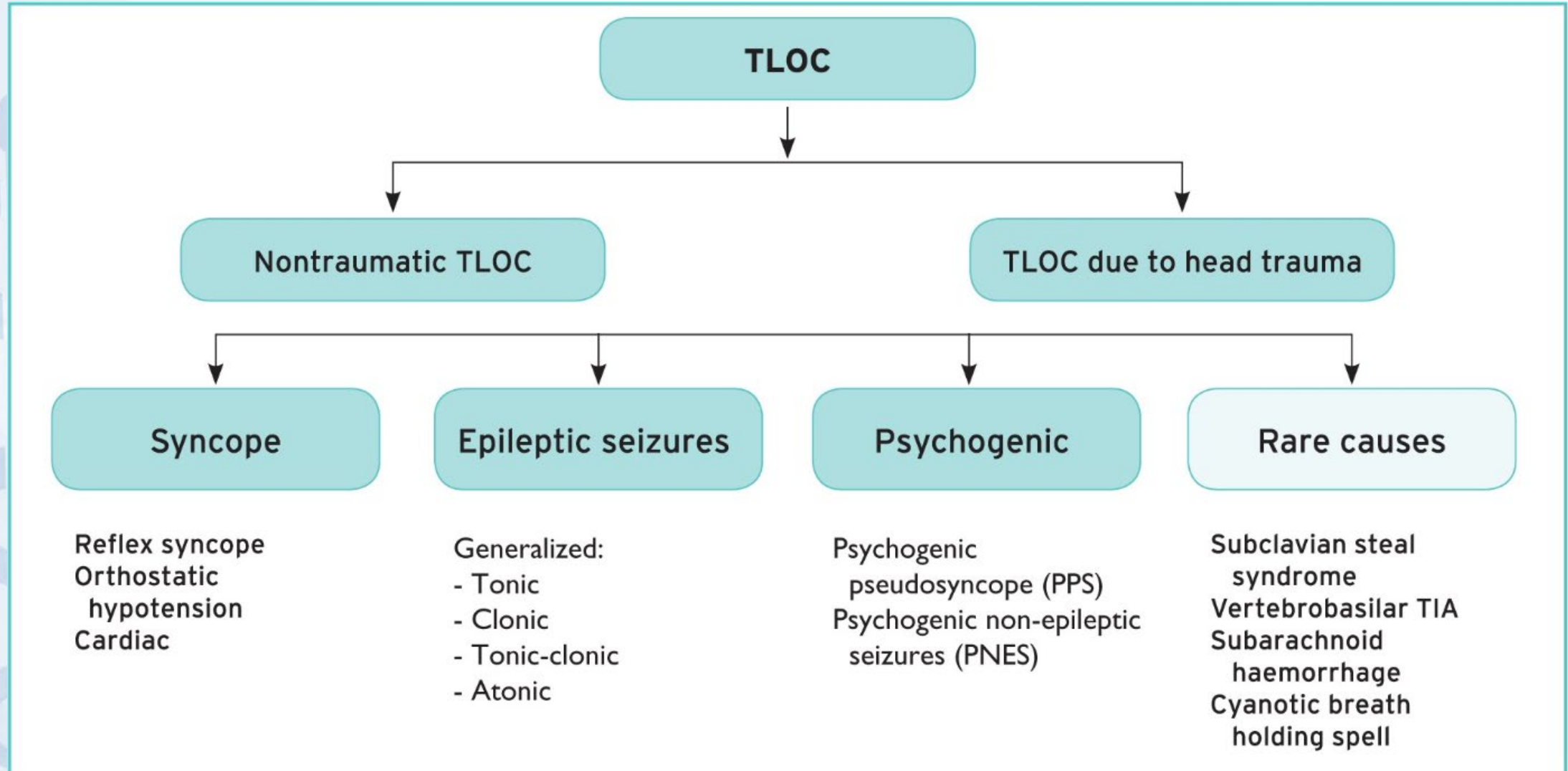
- **How Patients Describe Palpitations**
 - “Fluttering”
 - “Skipped beats”
 - “Pounding” heartbeat
- **Clues Suggesting an Arrhythmia**
 - **Known cardiac disease** increases the likelihood of an arrhythmic cause
 - Symptoms resolving within **<5 min** make an arrhythmia less likely
 - Association with **panic disorder** also decreases the likelihood
- **Think of AVNRT When...**
 - **Regular, rapid pounding in the neck** → strongly suggests AVNRT
 - **Visible neck pulsations** during palpitations → supports AVNRT
- **Clinical Pearl:** Ask patients not only “Do you have palpitations?” but also **what they feel, how long it lasts, and whether they feel or see rapid pulsations in the neck.**

What is syncope?

- *Syncope* is defined as TLOC due to cerebral hypoperfusion, characterized by a rapid onset, short duration, and spontaneous complete recovery.

TLOC/Syncope - What Should You Ask?

- During exertion or at rest?
- Standing or supine?
- Prodromal symptoms?
- Palpitations before syncope?
- Witnessed movements?
- Duration of loss of consciousness?
- Rapid and complete recovery?
- Previous episodes?
- Family history of sudden cardiac death?

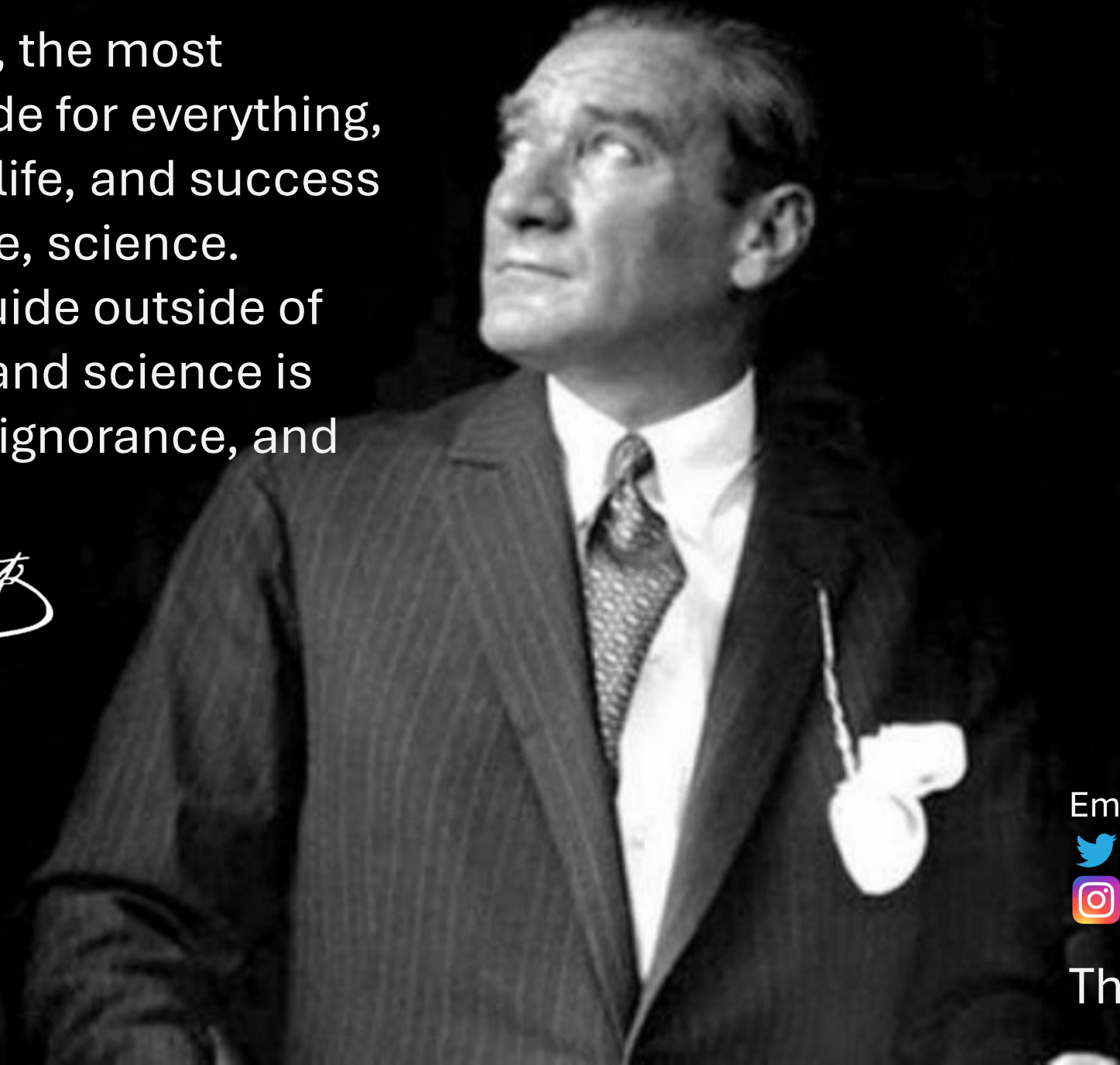


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In the world, the most
genuine guide for everything,
civilization, life, and success
is knowledge, science.
Seeking a guide outside of
knowledge and science is
negligence, ignorance, and
deviation.

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Thank you for listening.