

HOSPITAL PHYSICIAN®

INTERNAL MEDICINE BOARD REVIEW MANUAL

PUBLISHING STAFF

PRESIDENT, GROUP PUBLISHER

Bruce M. White

EXECUTIVE EDITOR

Debra Dreger

SENIOR EDITOR

Miranda J. Hughes, PhD

ASSISTANT EDITORS

Rita E. Gould

Melissa Frederick

EDITORIAL ASSISTANT

Kara V. Warner

EXECUTIVE VICE PRESIDENT

Barbara T. White, MBA

PRODUCTION DIRECTOR

Suzanne S. Banish

PRODUCTION ASSOCIATES

Tish Berchtold Klus

Mary Beth Cunney

ADVERTISING/PROJECT MANAGER

Patricia Payne Castle

NOTE FROM THE PUBLISHER:

This publication has been developed without involvement of or review by the American Board of Internal Medicine.



The Association for Hospital Medical Education endorses HOSPITAL PHYSICIAN for the purpose of presenting the latest developments in medical education as they affect residency programs and clinical hospital practice.

Diagnostic Evaluation and Management of Syncope; Atrial Fibrillation

Series Editor: Richard J. Simons, MD, FACP

Professor of Medicine, Assistant Dean for Medical Education, Associate Director, Internal Medicine Residency Training Program, Staff Physician, Milton S. Hershey Medical Center, Pennsylvania State University College of Medicine, Hershey, PA

Table of Contents

Chapter 1—Diagnostic Evaluation and Management of Syncope: A Case Study 2

Contributing Author: Edward R. Bollard, MD, DDS

Assistant Professor of Medicine, Director, Internal Medicine Residency Training Program, Associate Chair for Medical Education for the Department of Medicine, Staff Physician, Milton S. Hershey Medical Center, Pennsylvania State University College of Medicine, Hershey, PA

Chapter 2—Atrial Fibrillation: Case Studies. 14

Contributing Author: Mazhar H. Khan, MD

Fellow, Section of Cardiology, Milton S. Hershey Medical Center, Pennsylvania State University College of Medicine, Hershey, PA

Cover Illustration by Jean Gardner

Copyright 2001, Turner White Communications, Inc., 125 Stafford Avenue, Suite 220, Wayne, PA 19087-3391, www.turner-white.com. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, mechanical, electronic, photocopying, recording, or otherwise, without the prior written permission of Turner White Communications, Inc. The editors are solely responsible for selecting content. Although the editors take great care to ensure accuracy, Turner White Communications, Inc., will not be liable for any errors of omission or inaccuracies in this publication. Opinions expressed are those of the authors and do not necessarily reflect those of Turner White Communications, Inc.

Chapter 1—Diagnostic Evaluation and Management of Syncope: A Case Study

Contributing Author: Edward R. Bollard, MD, DDS

Assistant Professor of Medicine

Director, Internal Medicine Residency Training Program

Associate Chair for Medical Education for the Department of Medicine,

Staff Physician, Milton S. Hershey Medical Center

Pennsylvania State University College of Medicine

Hershey, PA

I. INTRODUCTION

Evaluating a patient who experiences the sudden loss of consciousness remains an important challenge for the clinician. Causes of syncope are varied, and its etiology is often unknown despite available neurologic and cardiac testing. In cases of syncope, certain aspects of presentation and initial evaluation may warrant further testing to avoid life-threatening recurrence. This article illustrates the common presentation, initial evaluation, and management of patients with presumed syncope. A case patient is presented to highlight features of the management of patients with syncope.

II. INITIAL EVALUATION

CASE PATIENT I PRESENTATION

Patient 1 is a 72-year-old woman who presents to the emergency department because she “passed out.” This incident occurred after she had finished eating breakfast. When she rose to take her dishes to the kitchen, she felt slightly nauseated and then perceived the room becoming dark. She turned to sit back down, and the next thing she knew her husband was helping her off the floor. She denies any chest pain, palpitations, or shortness of breath before the event. Her husband believes she was unconscious for only about 30 seconds and noted no abnormal movements, loss of bowel or bladder control, or disorientation or somnolence after the event. He states that she felt “clammy” when he picked her up but that she recognized him immediately. Patient 1 is currently without symptoms except for feeling fatigued.

• Which of the following statements are TRUE?

- A) A transient ischemic attack (TIA) is the likely cause of patient 1’s loss of consciousness.
- B) Based on her presentation, a cardiac cause for patient 1’s symptoms can be excluded.
- C) Tonic/clonic movements are only seen in loss of consciousness secondary to seizures.
- D) The reported duration of patient 1’s episode excludes a syncopal event.
- E) None of the above

DISCUSSION

The correct answer is E. Syncope is defined as a sudden, transient loss of consciousness and postural tone. Recovery from syncope is spontaneous. The pathophysiologic mechanism underlying this disorder is transient reduction of cerebral blood flow or of essential elements (oxygen, glucose/nutrients) to areas of the brain that support consciousness (ie, the brain stem reticular activating system). This reduction of flow results in loss of consciousness after about 8 to 10 seconds.¹ In her initial evaluation, the question of whether patient 1 truly experienced a syncopal event must be determined. Patients may often describe dizziness, lightheadedness, vertigo, “drop attacks” of narcolepsy, or focal neurologic events that do not fulfill the definition of syncope.

Seizures may result in loss of consciousness, and certain characteristics are more strongly associated with seizure activity. During a seizure, patients may have a blue (but not pale) complexion, engage in tongue biting, froth at the mouth, and have tonic/clonic movements (although this may also be seen in neurally mediated syncope). After a seizure, patients may have aching muscles and sleepiness. Disorientation after the event suggests seizure activity and not syncope. Although event duration is not part of the formal definition,