Medical and Laboratory Indicators of Elder Abuse and Neglect

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KEYWORDS

• Elder abuse • Elder neglect • Malnutrition • Dehydration

KEY POINTS

- Elder abuse and neglect are highly prevalent but woefully underdetected and underreported.
- The presentation is rarely clear and requires the piecing together of clues that create a mosaic of the full picture.
- More research needed to better characterize findings that, when identified, can contribute to certainty in cases of suspected abuse.
- Medical and laboratory data can be helpful in the successful determination of abuse and neglect.

INTRODUCTION AND OVERVIEW

As many as 10% of older adults in the United States experience elder abuse each year.[1–3] This maltreatment may include physical abuse, sexual abuse, neglect, psychological abuse, or financial exploitation, and many victims suffer from multiple types of abuse.[1–4] Elder abuse is associated with adverse health outcomes, including emergency department usage,[5,6] hospitalization,[7] depression,[8] nursing home placement,[9,10] and dramatically increased mortality.[11,12] The annual direct medical costs associated with violent injuries to older adults in the United States are estimated at $5.3 billion.[13] This large disease burden and cost are likely to increase significantly because of the anticipated growth of the geriatric population.[14–16]

Despite its frequency, many older adults who suffer from abuse or neglect endure it for years before it is discovered. Studies suggest that as few as 1 in 14 cases of elder abuse is reported to the authorities,[1,17] and much of the associated morbidity and mortality is likely due to this delay in identification and intervention.[18] Victims may be unable to report abuse because of isolation, severe illness, or dementia, or may

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be reluctant to report because of fear of reprisal, guilt, desire to protect the abuser, cultural beliefs, or fear of institutionalization. Therefore, recognition and reporting by others is critical for identifying victims and intervening.

Evaluation by health care providers represents an important, underutilized opportunity to identify elder abuse. For many older adults, assessment by health care providers may represent their only contact outside the family. Clinicians, therefore, have a unique opportunity to diagnose suspected elder abuse and initiate further evaluation by Adult Protective Services (APS) and elder abuse teams.[5,6,19–23] Despite this, only 1.4% of cases reported to APS come from physicians,[24] and in a survey of APS workers, of 17 occupational groups physicians were among the least helpful in reporting abuse.[25] Several reasons exist for this missed opportunity, including lack of awareness,[26] inadequate training,[26] insufficient information about available resources, lack of time to conduct a thorough evaluation for abuse, concern about involvement in the legal system, and desire to protect physician-patient confidentiality. Among the most important reasons for underreporting by physicians and health care providers is the difficulty in identifying elder abuse and neglect, and distinguishing between it and the sequelae of accidental trauma and acute or chronic illness. This identification is also made more challenging by the normal physiologic changes that occur with aging.[18,27–30]

Although extreme cases of elder abuse and neglect may be apparent to the provider with a cursory assessment, most are subtle, and require the clinician to maintain a high index of suspicion and to identify clues during the patient evaluation.[31] These clues, often called forensic markers,[31] may include physical findings, injury patterns, and medical or laboratory signs. Potential forensic markers for elder abuse and neglect have been described in the literature for geriatricians, emergency physicians,[5,6,19–23] family physicians,[32,33] nursing home medical directors,[34] burn surgeons,[35] dermatologists,[36] orthopedic surgeons,[37] radiologists,[18] and dentists.[38–40] Most of this existing literature focuses on physical injury patterns suspicious for mistreatment, including bruising, lacerations, fractures, and burns.

In addition to physical injury patterns, however, there are also medical and laboratory markers that should increase suspicion of elder abuse or neglect. Such markers include indicators of malnutrition, dehydration, alterations in status of chronic illness, hypothermia/hyperthermia, rhabdomyolysis, toxicologic findings, and postmortem biochemical values. In many cases, these markers may be the only clue that abuse or neglect has occurred. Though little systematic research exists on the prevalence of these findings in mistreatment, the current literature for each is described herein.

MEDICAL AND LABORATORY INDICATORS OF ELDER ABUSE AND NEGLECT

Malnutrition

Malnutrition and weight loss in the older adult are commonly encountered in geriatric practice (**Table 1**). Malnutrition is a risk for functional decline and vulnerability to many life-threatening diseases, particularly infection.[31] Even in the absence of neglect, older adults have multiple risk factors for malnutrition and weight loss.

Normal aging results in a decrease in taste sensation, and less production of saliva and a dry mouth, making the eating experience less pleasurable. Almost 50% of older adults have a decreased sense of smell, further diminishing their enjoyment of eating and leading to decreased caloric intake.[41] Changes in gastrointestinal tract secretions, such as decrease in prostaglandins, leads to increases in acid that may cause discomfort and lead to avoidance of eating. Decreased