Falls and myocardial infarction in diabetic elderly

Diyabetik yaşlılarda düşmeler ve miyokardiyal infarktüs

Dear Editor,

Falls are frequent causes of admission to hospital in the elderly and myocardial infarction (MI) can present atypically. Moreover, the clinical scenario may turn out to be an impasse in the diabetic patients whereby silent MI and increased risk of falls might prevail. Reported here is an old diabetic lady who had suffered from a fall episode after which she had died due to a concurrent MI.

A 70-year-old lady was seen in the emergency clinic after a fall episode. She complained of right hip and low back pain. Her medical history comprised diabetes mellitus for 15 years and chronic alcoholism for the last 5 years. The physical examination was consistent with ecchymotic areas in her right thigh and the gluteal regions. Radiological findings were unremarkable. Laboratory analysis was as follows: glucose: 300 mg/dl, creatinine: 3 mg/dl (< 1.2), blood urea nitrogen: 50 mg/dl (7-30), alanine aminotransferase: 100 U/L (< 48), aspartate aminotransferase: 250 U/L (< 42), lactate dehydrohenase: 400 U/L (< 270), gamma-glutamyl transpeptidase: 100 U/L (<45), creatine kinase (CK): 300 IU/L (20-200), CK-MB: 65 IU/L (0-12). Ketones were negative in the urine. Electrocardiography yielded negative T waves in DI, AVL, V4, V5 and V6 derivatives. We considered these findings to be relevant with muscle trauma, however recollecting the fact that diabetic patients might suffer from painless MI, we have also ordered troponin I which turned out to be high (3 ng/ml, normal < 0.6). Then she was diagnosed to have non-Q-wave MI and was treated accordingly. On the 4th hour of her admission to the emergency room, she developed ventricular fibrillation and died.

In this report, we draw attention to an untoward eventuality in the diabetic elderly, which is the possible concomitance of falls and silent myocardial infarction. During the evaluation of these patients, the elevated enzyme levels may not always herald the diagnosis of MI since they can readily be attributed to the coexisting muscle injury and chronic alcoholism. Unless the likely diagnosis is considered and the cardiac specific troponins are measured, one can easily misdiagnose such a serious pathology.

Moreover, highlighting the fact that falls may even be more common in the diabetic elderly due to retinopathy (impaired vision) and neuropathy (1, 2), we orient the clinicians towards being vigilant against such a clinical scenario (3), which may end up with lethal outcome.

Old patients display increased tendency to fall episodes and related complications; these can be even more pronounced in the diabetic elderly both due to increased falls and MI episodes. There is rapidly growing population of older adults who grew up during an era of increased illicit drug and alcohol use and there are reasons to believe that there will be a greater impact of alcohol abuse or dependence on the next generation of older adults (4). Interventions for problem drinking appear to reduce injuries and their antecedents (e.g. falls, motor vehicle crashes, and suicide attempts). Because injuries account for much of the morbidity and mortality from problem drinking, larger studies are warranted to evaluate the effect of treating problem drinking on injuries (5). Falls should not be evaluated as a simple fall (due to alcoholism, retinopathy and neuropathy) especially in elderly diabetics but should be checked for underlying reasons such as myocardial infarction. Both the patients and the clinicians should be aware of this challenging condition. Last but least, the education of the patients along with their families about routine follow-up for cardiovascular, neurological, ophthalmologic risk factors and fall-related complications will definitely decline the pertinent morbidity and mortality.

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