

Prevalence of Hypertension in Post 9/11 Veterans with PTSD and Management

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Abstract

The purpose of this paper is to explain the prevalence of hypertension in post 9/11 veterans with posttraumatic stress disorder (PTSD) and describe how to manage hypertension. Research provides evidence to confirm that veterans with posttraumatic stress disorder do have a higher prevalence of hypertension compared to veterans without posttraumatic stress disorder. Post 9/11 veterans with PTSD are more than twice as likely to have hypertension compared to veterans without PTSD. Hypertension is not curable; therefore, patients have to be educated and understand how to manage high blood pressure once diagnosed. Lifestyle, behavioral, and educational interventions are essential when managing hypertension. Research supports that changes in tobacco usage, exercise, and diet and patient education improves blood pressure.

Keywords: hypertension, prevalence, management

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Introduction

Approximately 11-20% of veterans who were active in Operations Iraqi Freedom and Enduring Freedom report posttraumatic stress disorder (PTSD) each year (U.S. Department of Veteran Affairs [VA], 2015). Bedi and Aurora (2007) reviewed several author's works to examine if and to what extent PTSD influences the cardiovascular system. One researcher in the study attributed high base line heart rate to the amount of trauma a PTSD veteran experienced; an excess amount of exposure to trauma can cause veterans' sympathetic nervous systems to constantly be active and trigger veterans to live in a fight or flight state of mind indefinitely (Bedi & Aurora, 2007). Other researchers in the review compared heart rate, systolic, and diastolic blood pressures in veterans with and without PTSD; some did not find any significant differences, while others found that PTSD did affect the cardiovascular system more negatively compared to veterans without PTSD (Bedi & Aurora, 2007).

Thirty-four million United States citizen's doctors' appointments result in a diagnosis of hypertension (Center for Disease Control & National Center for Health Statistics, 2012). Hypertension is the medical term used for high blood pressure. Normal, healthy blood pressure is considered to be less than or equal to 120/80. High blood pressure does not have directly related symptoms to the disease; therefore, the disorder is often referred to as the disease that will silently kill (American Heart Association [AHA], 2016c). Symptoms that are indirectly related to hypertension are flushing of the face, dizziness, or spots of blood in the eyes (American Heart Association [AHA], 2016a). Hypertension can affect the heart, leading to heart attack or failure, kidney function, or cause a stroke (U.S. Department of Veteran Affairs [VA], 2016). The purpose of this paper is to explain the prevalence of hypertension in post 9/11 veterans with posttraumatic stress disorder and describe how to manage hypertension.

Paulus, Argo, and Egge (2013) conducted a study and determined the prevalence of hypertension in post 9/11 PTSD veterans was higher compared to non-PTSD veterans. In the study, PTSD, non-PTSD, and no trauma experienced veterans' blood pressures were compared; both the PTSD veterans and non-PTSD veterans reported trauma experience (Paulus et al., 2013). Veterans' blood pressures with PTSD averaged to 133.8/87.6, while non-PTSD veterans' blood pressures averaged to 128.3/81.9 (Paulus et al., 2013). Veterans who had no report of trauma experience exhibited the lowest average blood pressure of 120.1/77.1 (Paulus et al., 2013). These results revealed that the prevalence of hypertension in PTSD veterans was 34.1% compared to non-PTSD veterans of 16.1% (Paulus et al., 2013). Paulus et al.'s (2013) data also provided evidence that veterans with exposure to trauma had an increase in resting blood pressure compared to those without trauma experience.

Management

Management is the vital component to living with hypertension because no cure is available (American Heart Association [AHA], 2016b). To assist patients living with hypertension, doctors prescribe medication to maintain healthy blood pressure. Once medication is prescribed, it is essential that nurses educate the patient about the medication including its purpose, side effects, and dosage (VA, 2016). When the medication prescribed by the doctor causes blood pressure to decrease to normal levels, the medication cannot be terminated; the only time to discontinue medication is through doctor's orders (VA, 2016).

In addition to prescribed medication, management depends on lifestyle choices: diet, exercise, and stress (AHA, 2016b). To maintain a healthy blood pressure, a well balanced diet is essential, which includes low salt intake. Recommendations include females consuming one and men consuming two alcoholic beverages per day and exercising three to four times per week for 40 minutes each session (VA, 2016). A healthy diet and regular exercise activity also contribute

to maintaining an appropriate weight depending on height and body mass index. Stress is an additional risk factor to hypertension, and stress management interventions may include yoga and exercise. Refraining from tobacco usage is also effective to maintain blood pressure less than or equal to 120/80 (VA, 2016). Regularly checking blood pressure can help a patient monitor it and visually see if the medication and lifestyle changes are being successful (AMA, 2016b).

Zullig and Bosworth (2014) conducted a study on behavioral interventions, and found that behavioral interventions along with lifestyle modifications significantly improved hypertension. One specific trial studied whether additional patient education and behavioral intervention would improve levels of hypertension; patients were either assigned to instruction visits lasting one hour per week or regular interventions (Zullig & Bosworth, 2014). During the visits, health care workers such as nurses, physical therapists, and nutritionists provided an educational talk, and a pharmacist gave a behavioral talk about taking medication as directed (Zullig & Bosworth, 2014). Zullig and Bosworth (2014) found that after four months, the majority of the patients who were assigned to educational visits reached a systolic blood pressure less than 130.

Summary

Research supports that the prevalence of hypertension is doubled in post 9/11 veterans with PTSD compared to veterans without PTSD. Researchers attribute this finding to a constant activated sympathetic nervous system due to trauma experience. There is not a universal cure for high blood pressure; therefore, management is the key to living with the disease. Research supports that lifestyle modifications along with educational and behavioral interventions are effective in managing hypertension. Doctors often prescribe medication to manage hypertension; however, for the medication to be successful, patients must follow the prescriber's instructions as

to when and how many times per day to take the medicine. Hypertension is manageable once diagnosed; however, successful interventions depend on patients to make the change.

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Prevention

According to Zullig and Bosworth (2014), high blood pressure is one of the most prevalent and expensive conditions among United States veterans. Prevention of hypertension predominately depends on lifestyle choices: diet, exercise, and stress (American Heart Association, 2016b). To maintain a healthy blood pressure, a well balanced diet is essential, which includes low salt intake. Recommendations include females consuming one and men consuming two alcoholic beverages per day and exercising three to four times per week for 40 minutes each session. A healthy diet and regular exercise activity also contribute to maintaining an appropriate weight depending on height and body mass index. Stress is an additional risk factor to hypertension, and stress management interventions may include yoga and exercise. Refraining from tobacco usage is also effective to maintain blood pressure less than or equal to 120/80. Healthy lifestyle choices are essential beginning in early life to prevent hypertension; because there is no cure, management is the only choice after hypertension diagnosis (American Heart Association, 2016b).

http://www.heart.org/HEARTORG/Conditions/HighBloodPressure/PreventionTreatmentofHighBloodPressure/Prevention-Treatment-of-High-Blood-Pressure_UCM_002054_Article.jsp#.V9WGD1J43DI