

Syncopal Symptoms and Cardio Vascular Resistance

Alice Peiterson*

Department of Surgery, Cooper University Hospital, Camden, USA

Introduction

Drek, who was fifteen years old at the time, showed up at the emergency room around with an injury from inner tubing. Drek crashed into a tree with his back as he was sledding down a steep slope when he lost control of his inner tube. While he did not vomit or lose consciousness, he did experience pain in his right arm and neck. He brought a full-length vacuum splint for his right arm, a cervical collar, and spinal immobilization. X-ray films revealed a right clavicle fracture as the cause of his right upper arm deformity. After the cardio vascular resistance cervical collar was taken off, there were no signs of soreness or pain when he moved his neck, so the possibility of a neck injury was ruled out. Upon urinalysis, no blood was found. The following were initial vital signs. The body temperature was for the beat of the heart 26 for the rate of breathing and a blood pressure [1].

Description

One and a half hours after his admission, he was administered 4 mg of morphine via an IV line that was inserted into his left hand. A pressure balloon was used to accelerate the IV infusion of lactated Ringer's solution so that Drek could leave approximately two hours after his arrival. Drek reported experiencing chest pain, turning pale and dehydrated, and having a syncopal episode three hours after receiving the lactated Ringer's solution infusion. The following were his vital signs: His pulse rate was 109 beats per minute, his blood pressure was and his cardio vascular resistance respiratory rate was breaths per minute. The symptoms seemed to go away once the mask provided oxygen. Description Syncope may occur when you hyperventilate. However, Drek's mother claims that he did not hyperventilate prior to the syncopal episode, and nurses did not observe Drek doing so prior to the onset of symptoms. The syncopal episode may indicate a drop in blood pressure caused by anaphylaxis. Reactions typically occur more rapidly and exhibit symptoms that persist even after oxygen treatment. There were no of the usual symptoms of an allergic reaction, such as a rash, wheezing, or shortness of breath [2].

A developing cardiac contusion could be the cause of Drek's chest pain. His symptoms vanished after he received oxygen, which is incompatible with a heart contusion. A cardiac contusion was unlikely because Drek's damage was to his back rather than his chest. A forceful blow to the chest is typically what causes a cardiac contusion. Drek's pallor, diaphoresis, and pain in his chest may be caused by a pneumothorax. After cardio vascular resistance receiving oxygen, he experienced no diminished breath sounds or tracheal deviation, and his symptoms subsided. Therefore, pneumothorax was highly unlikely. An air embolus was identified by Drek's pallor, syncope, discomfort in his chest, and diaphoresis. Due to Drek's sudden onset of chest pain, pallor, diaphoresis, and the still-attached pressure bag in his IV bag, this examination revealed that he had an air embolus. In the line that led to the hub, there was also air here [3].

An adult air embolus requires approximately 100 milliliters of air to be fatal, but even less air is required to begin exhibiting symptoms. There seems to be a lot of air here. A 14-gauge IV line, on the other hand, will deliver 100 cc of air

*Address for Correspondence: Alice Peiterson, Department of Surgery, Cooper University Hospital, Camden, USA, E-mail: Alicepeiterson5@hotmail.com

Copyright: © 2023 Peiterson A. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Received: 12 January, 2023, Manuscript No: jigc-23-90798; Editor assigned: 13 January, 2023, PreQC No: P-90798; Reviewed: 26 January, 2023, QC No: Q-90798; Revised: 31 January, 2023, Manuscript No: R-90798; Published: 08 February, 2023, DOI: 10.37421/2684-4591.2023.7.173

per second when a pressure bag is used. In the infant and child population, even less air would be required to cause symptoms and death. The death rate from venous air embolism is about according to estimates. When air enters the venous circulation, the "aggregation of platelets, red blood cells, and fat globules" effectively initiates cardio vascular resistance the clotting cascade. It is possible for the air itself to prevent blood from flowing through the pulmonary arteries. Because air rises, air moves to the pulmonary valve while the patient is seated or standing. As a result, the blood may be unable to reach the lungs and return to the peripheral circulation without as much oxygen. Congestive heart failure can also occur as a result of this, as it makes the right side of the heart work harder and causes blood to back up in the circulation. The pulmonary obstruction, which raises pulmonary vascular resistance, causes pulmonary [4].

In the literature review, the majority of cases of venous air embolism were associated with these surgical procedures or central venous access devices. However, whenever a vein is accessed, there is a small but real risk of venous air embolism. When a pressure bag is used, the outside pressure is greater than the venous pressure, which typically prevents air from IV tubing from entering the veins. Any patient who, like Drek, has a peripheral line implanted faces cardio vascular resistance the risk of venous air embolism. The use of a pressure bag may exacerbate this risk. The nurse needs to look for any cracks or breaks in the central line and clamp it close to the break if it is thought to be the source of the embolus. Once the patient's condition is stable, the symptoms should be addressed, as previously mentioned. The incident should be reported to the surgeon as soon as possible to let him or her know about it [5,6].

Conclusion

As a result of Drek's experience, our emergency department established a procedure for the use of IV pressure bags. Drek's symptoms seemed to get better after he got oxygen. He was not lying in the Trendelenburg or left side-lying positions, despite the fact that doing so might have been advantageous. However, as Drek cardio vascular resistance prepared to be discharged, he continued to experience nausea and paleness when standing. After being admitted, his health was examined throughout the night for any recurrence of dyspnea, pallor, decreased blood pressure, dizziness, or persistent nausea. He was released the following day without any issues.

Acknowledgement

None.

Conflict of Interest

None.

References

1. Mattar, Ahmed, David Carlston, Glen Sariol and Tongle Yu, et al. "The prevalence of obesity documentation in primary care electronic medical records." *App Clin Inf* 26 (2017): 67-79.
2. Benjamin, Emelia J., Paul Muntner, Alvaro Alonso and Marcio S. Bittencourt, et al. "Heart disease and stroke statistics—2019 update: A report from the American Heart Association." *Circulation* 139 (2019): e56-e528.
3. Mahmood, Syed S., Daniel Levy, Ramachandran S. Vasan and Thomas J. Wang. "The framingham heart study and the epidemiology of cardiovascular disease: A historical perspective." *Lancet* 383 (2014): 999-1008.
4. Balakumar P, Maung UK and Jagadeesh G. "Prevalence and prevention of

- cardiovascular disease and diabetes mellitus." *Pharmacol Res* 113 (2016): 600–609.
5. Danaei, Goodarz, Carlene MM Lawes, Stephen Vander Hoorn and Christopher JL Murray. "Global and regional mortality from ischaemic heart disease and stroke attributable to higher-than-optimum blood glucose concentration: Comparative risk assessment." *Lancet* 368 (2006): 1651–1659.
 6. Swain, Sandra M., Fredrick S. Whaley and Michael S. Ewer. "Congestive heart failure in patients treated with doxorubicin: A retrospective analysis of three trials." *Cancer* 97 (2003): 2869-2879.

How to cite this article: Peiterson, Alice. "Syncopal Symptoms and Cardio Vascular Resistance." *J Interv Gen Cardiol* 7 (2023): 173.