

The Forms, Symptoms, and Treatments of Compartment Syndrome

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Introduction

Compartment syndrome can be classified as a health issue that increases the pressure level of the tissue fluid. It concerns with the feature of the closed osseofascial form of the compartment which intertwines with the aspects of the muscles and nerves related to the compartment. The aspect of compartment syndrome is directly related to different medical and surgical conditions. These conditions can be classified as fractures, arterial injuries, embolus, and the feature of external firmness. The particular prospect of compartment syndrome can be observed in the form of swelling and destruction in tissue perfusion.

Initially, it was observed that there is the existence of two possible causes of compartment syndrome. Type I is related to the proximal arterial injury while type II belongs to the feature of direct injury which increases the feature of swelling ultimately producing the form of ischemia. It is worth mentioning that the reduced form of circulation can block the tissues and the nerve cells, which happens due to the high pressure in the body (Tiwari et al., 2002). Permanent disability can be the severe implication of the recurring feature of compartment syndrome. The issue of compartment syndrome can be classified into three different forms which are known as acute, exertional, and chronic. The features of signs and symptoms are the same for all types. The major difference exists in the case of the main cause of the injury.

Discussion

At Cellular Level:

Compartment syndrome is a condition caused by the acceleration of pressure with the consideration of the closed fascial or osseofascial form of space. The particular increase in pressure ultimately affects the smooth functioning of the capillary blood flow to the body tissues. The mechanism of compartment syndrome particularly damages the soft tissues of muscles, nerves, and vasculature. The increasing form of a shift in pressure is also becoming the cause of vascular breakdown and the perfusion of the enclosed tissues. This sort of development affects the features of muscle necrosis which is the reaction of the oxidative and inflammatory responses concerning the primary form of trauma. Intra-compartmental pressure increases the chances of damage to tissue perfusion (Kirkpatrick et al., 2013). Notably, on the cellular level, the direct form of muscle injury and the

indirect kind of damage become the reason for damaging body tissues. The increased level of tissue pressure causes the reduction of the overall compartment size or the enhancement in the intracompartmental feature due to the aspect of edema. The aspect of tissue pressure is known as the major form to establish the element of diagnosis (Oyster et al., 2015). The compartment syndrome mechanism directly concerns the fascia feature which keeps tissues in their right places. The improper functioning of the fascia happens due to improper acceleration in the pressure level.

Signs and Symptoms:

Particular health signs and symptoms are significant to effectively and efficiently dealing with any health issue. This specific feature of proper identification and assessment is also present in the case of compartment syndrome. Pain and swelling can be identified as the primary symptoms in the case of compartment syndrome (McQueen & Gaston, 2000). If the issues of pain and swelling can last for a long period these can be the sure signs of compartment syndrome. The issue of tightness can also be one symptom of chronic compartment syndrome. Sometimes, people experience numbness in the limb due to compartment syndrome. The severity of this particular disease can be witnessed in the form of a drop of the foot drop. It is one of the significant symptoms or signs in case of a chronic aspect of compartment syndrome. Properly identifying the specific pattern of pain in the body can also be helpful in understanding the aspect of compartment syndrome. Initially, the pain started with exertion or the element of exercise. The element of pain becomes worse with the feature of activity. The increasing exercise time ultimately indicates the feature of compartment syndrome in the body. It is crucial to understand that if someone is continuously facing the issue of an unusual form of pain, weakness, or swelling, then it is the right time to consult a doctor to understand the necessary features of compartment syndrome time. Timely diagnosis of compartment syndrome can be useful in eliminating the chances of the severity of the compartment syndrome. The acute form of compartment syndrome can be observed as intense pain that would be more than the injury itself. Stretching of the muscles increases the human body's features concerning the chronic form of compartment syndrome. Burning sensations in the skin can also be one sign of the persistence of compartment syndrome.

Labs and Diagnostic:

A proper and timely medical diagnosis of the problem of compartment syndrome can be immensely effective in treating this particular health issue. It is crucial for people to seriously consider the signs and symptoms associated with the facet of the diagnosis of this particular disease of compartment syndrome (Bong et al., 2004). It is notable to mention that most results of the laboratory tests are characterized as the standard form which does not necessarily indicate the issue of compartment syndrome.

The feature of acute compartment syndrome can be identified primarily by referring to the aspect of

trauma. The prevailing characteristic of pressure in the body is assessed to make inferences about the severity of the compartment syndrome. The feature of thallium stress testing is another medical feature that can be used to determine the issue of compartment syndrome in the body. This test is applied by injecting the necessary amount of thallium into the body to understand the body's reaction resulting from the facet of exercise. This particular form of diagnosis can be helpful to assess the existence of the multiple compartments in the body (Elliott & Johnstone, 2003). It is necessary to mention that this particular test never indicates the specific magnitude of the problem that prevails in the body.

Treatment:

Treatment is the necessary step to deal with the issue of chronic compartment diagnosis effectively. The prospect of therapy can only be effective if the diagnosis is proper and timely. Surgery is known as the rare form of requirement in the case of compartment syndrome. Mostly, an adequate form of rest is recommended by physicians to overcome the sort of pain in case of compartment syndrome. Fasciotomy is a medical solution that can be applied to adequately address the issue of the chronic form of compartment syndrome (Heemskerk & Kitslaar, 2003). It can be identified as the surgical process that involves fascia, or fibrous tissue that directly concerns the body muscle.

Conclusion

In the end, it is crucial to mention that a necessary form of information related to compartment syndrome is required to deal with this particular issue effectively. Specific signs and symptoms should not be ignored by the people to ensure an effective form of remedial measures. The feature of the pain can be turned into a severe way if it is not appropriate to address.

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