Revolutionary skin patch technology for stroke prevention.

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Abstract

The skin patch technology for stroke prevention has several advantages over traditional oral medications. First, it bypasses the digestive system, which can reduce the risk of side effects and increase the efficacy of the medication. Second, it provides a controlled and consistent dose, which can improve patient compliance and reduce the risk of overdose or underdoes. Finally, it is non-invasive and easy to use, which can increase patient comfort and convenience.

Keywords: Skin Patch Technology, Stroke, Warfarin, Heparin, LV chamber, Anticoagulants.

Introduction

Stroke is a leading cause of death and disability worldwide, affecting millions of people every year. It occurs when the blood supply to the brain is interrupted, either due to a blockage or a rupture in the blood vessels. While there are several treatment options available, prevention remains the best approach to reducing the incidence and impact of stroke [1].

Technology that has emerged in recent years is the revolutionary skin patch for stroke prevention. This innovative approach to stroke prevention involves applying a patch to the skin that delivers medication directly into the bloodstream. The patch is designed to release the medication over a specific period, providing a continuous and consistent dose [2].

One of the most promising applications of skin patch technology for stroke prevention is the use of anticoagulants, such as heparin or warfarin. Anticoagulants are commonly used to prevent blood clots, which are a major risk factor for stroke. However, these medications can be difficult to manage, as the dosage must be carefully monitored to prevent bleeding complications [3].

Advantages of skin patch technology are convenient. Patients can wear the patch for an extended period of time, eliminating the need for frequent doses of medication. Additionally, skin patches can provide a more controlled and consistent dose of medication than other forms of delivery, such as oral medication, which can be affected by factors such as digestion [4].

Skin patch sensor that may be used as a non-invasive, point of care diagnostic to identify abnormal heart function by assessing the fluid dynamic of the LV chamber. The patch sensor is suited to measure volumetric changes which are directly related to the changes in the electric permittivity of the surrounding material. Thus, this patch sensor may be able to measure fluid volume changes in the LV chamber as frequency shifts in the sensor resonant frequency response with each cardiac cycle. Due to the simple nature, ease of operation, and point of care utilization, this patch sensor may be utilized in populations that lack hospitals, certified physician, medical field, and it would not be restricted to the clinical setting.

The skin patch technology for anticoagulant delivery has been shown to be effective in several clinical trials. Skin patch technology also has potential advantages over traditional injections or infusions, as it can be less invasive, more discreet, and easier to use for patients who may have difficulty with self-injection or who require frequent medication administration. Skin patch technology also has potential advantages over traditional injections or infusions, as it can be less invasive, more discreet, and easier to use for patients who may have difficulty with self-injection or who require frequent medication administration [5].

Conclusion

While the skin patch technology for stroke prevention is still in its early stages, it holds great promise for the future. Currently exploring new medications and formulations that can be delivered *via* skin patch, as well as ways to improve the patch's design and effectiveness. With continued research and development, the skin patch technology for stroke prevention could revolutionize the way we approach this devastating condition.

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***Received:** 27-Mar-2023, Manuscript No. AACHD-23-94386; **Editor assigned**: 30-Mar-2023, PreQC No. AACHD-23-94386(PQ); **Reviewed**: 13-Apr-2023, QC No. AACHD-23-94386; **Revised:** 17-Apr-2023, Manuscript No. AACHD-23-94386(R); **Published:** 24-Apr-2023, DOI: 10.35841/aachd-7.2.136*

***Citation:** Antonio O. Revolutionary skin patch technology for stroke prevention. J Cholest Heart Dis. 2023;7(2):136*

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Citation: *Antonio O. Revolutionary skin patch technology for stroke prevention. J Cholest Heart Dis. 2023;7(2):136*