



COMPARATIVE BIOSCIENCES, INC.

A TRANSLATIONAL APPROACH TO PRECLINICAL RESEARCH

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Recently CBI conducted a study for Zipline Medical, Inc. in which we compared the tolerability of their novel skin closure technology to standard sutures in a rat model in which an incision was created and then infected with Staph at the time of skin closure. We assessed the performance of the novel skin closure against the standard sutures by clinical observation, bacterial culture and histopathology with standard and special stains for bacteria. Collaboratively, we were able to demonstrate that the Zipline Medical, Inc. skin closure technology outperformed the standard sutures. There was little infection, minimal scarring and rapid healing, in comparison with the standard suture in which there was persistent infection, bacterial abscess and foreign body formation, large scars and slow healing. The study was just published.

Cureus

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Hi Dr. Meschter,

You were recently listed as a co-author of the Cureus article, "In Vivo Efficacy Study Showing Comparative Advantage of Bacterial Infection Prevention with Zip-type Skin Closure Device vs. Subcuticular Sutures." We're pleased to report that this article has been published and is now available to view in Cureus. It will be submitted for indexing in PubMed Central in two months. (Look for it to appear in PMC shortly thereafter.)

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**Thanks,
The Cureus Editorial Team**



PUBLISHED

Original Article

In Vivo Efficacy Study Showing Comparative Advantage of Bacterial Infection Prevention with Zip-type Skin Closure Device vs. Subcuticular Sutures

[Bauback Safa](#), [Amir Belson](#), [...] [Eric Storne](#)

Categories: Cardiac/Thoracic/Vascular Surgery, Emergency Medicine, Orthopedics

Abstract

There remains a lack of understanding of how wound closure methods perform comparatively when exposed to patient-induced movement during healing and how they may contribute to bacterial infiltration in the wound site. The present study attempts to objectively quantify this gap. The study evaluates bacterial penetration and subsequent symptoms of infection of traditional sutures and an emerging tape-based, zip-type wound closure technology under physiologically relevant loading. In an in vivo model to simulate real-world conditions, the latter demonstrates better performance compared to commonly used sutures, holding the wound intact and minimizing bacterial penetration when subjected to simulated patient movement-induced stress.

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https://www.cureus.com/articles/12205-in-vivo-efficacy-study-showing-comparative-advantage-of-bacterial-infection-prevention-with-zip-type-skin-closure-device-vs-subcuticular-sutures?utm_medium=email&utm_source=transaction