Partner Success Stories: Compartment Pressure

Advancing CECS Diagnosis in Athletes: Dr. Jaap Stomphorst's Success with Millar's Mikro-Cath™

Partner:
Dr. Jaap Stomphorst

Sports Physician

Isala Hospital, The Netherlands

Technology:
- Millar Mikro-Cath™
- 5+ Years of experience with the product
- Over 300 patients tested

Problem

Chronic Exertional Compartment Syndrome (CECS) is a challenging condition to diagnose, particularly among athletes who experience exercise-induced pain. Traditional diagnostic methods, such as fluid-filled catheters, present significant limitations due to kinking, blood clot obstructions, and multiple insertions, which can increase patient discomfort and the risk of complications.

These fluid-filled methods can also be more complex to use and prone to measurement inaccuracies, increasing the room for error and reducing diagnostic reliability[2]. Additionally, the use of rigid needles during real-time pressure monitoring in active scenarios can be impractical and exacerbate patient pain. Clinicians need a reliable, minimally invasive tool that withstands high-exertion testing, offering continuous and reproducible measurements without interruption.

Solution

Dr. Jaap Stomphorst[1], a sports physician and member of an expert group of clinicians specializing in exercise-related pain in The Netherlands, turned to Millar's Mikro-Cath™ pressure catheter to address these diagnostic challenges.

Since 2018, he has utilized the Mikro-Cath for compartment pressure measurements across various muscle groups, including the lower arms, hands, upper legs, and lower legs. By incorporating this advanced catheter into his CECS testing protocol, Dr. Stomphorst achieved continuous, real-time measurements with exceptional accuracy and reliability.

Partner Success Stories: Compartment Pressure

Impact

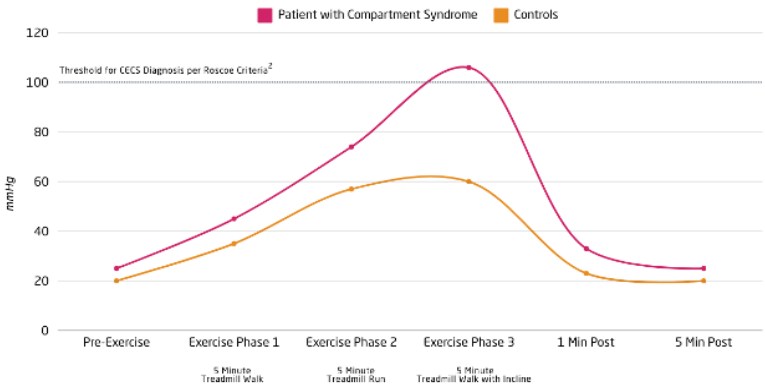
Dr. Stomphorst has tested over 300 patients, consistently finding that the Mikro-Cath's innovative design has led to more dependable results. Dr. Stomphorst has been quoted saying,

"***T**he Mikro-Cath's ability to capture uninterrupted data during active testing supports the development of precise treatment plans and has ultimately contributed to improved outcomes for my patients.*"

In a recent treadmill study for lower leg CECS, Dr. Stomphorst used the Millar Mikro-Cath™ to monitor dynamic intramuscular pressure changes over a 15-minute exercise period. The catheter consistently tracked mean pressure fluctuations as the patient exercised, visually mapping pressure trends throughout the test.

This data, which ultimately exceeded the Roscoe[2] CECS diagnostic threshold, provided a greater variance from control data and offered more objective insights during exercise. This variance enhances the reliability of the diagnosis, allowing for greater confidence in identifying CECS and supporting more accurate, targeted treatment plans.

Example of diagnostic data showing dynamic intramuscular pressure changes over a 15-minute exercise period, with continuous monitoring capturing pressure levels before, during, and after activity.



Sources:

(1) https://www.isala.nl/specialisten-en-medewerkers/j-jaap-stomphorst/

(2) https://pubmed.ncbi.nlm.nih.gov/25406302/

Millar, LLC. | 11950 N. Spectrum Blvd. | Pearland, TX, 77047, USA
Ph. 832-667-7000 | sales@millar.com | millar.com
P/N 005-1343, Rev A

millar.com/mikro-cath