

WANDERCRAFT

QUATRO clinical study

Evaluation of usability and safety of the system Atalante in patients with high paraplegia and tetraplegia.



3 centers



Non-interventional, national, multi-centric, retrospective study



High paraplegia and tetraplegia regardless of the cause: 33 SCI

Inclusion criteria

1.

High paraplegia or tetraplegia regardless of the cause

2.

Non-opposition to the participation to the study

3.

Having undergone a minimum of 1 session with the Atalante device from February 2019, to present

SCI patient profile



8 women and 25 men



38.8 ± 15.6 years-old



2.6 ± 4.7 years post-diagnosis



26 patients unable to walk before the first session with the exoskeleton

30%

Motor incomplete tetraplegia

30%

Motor complete paraplegia

Level
of lesion

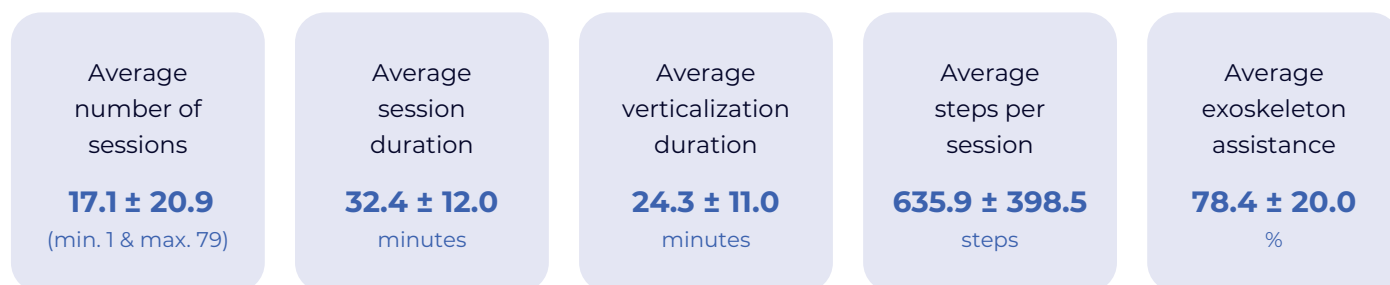
37%

Motor complete tetraplegia

3%

Motor incomplete paraplegia

Session data



Outcomes

One Adverse Event (AE): fatigue and dizziness after each exoskeleton session, possibly related to hypotension.

Two patients discontinued sessions due to reasons related to the exoskeleton: one related to the AE and one because of apprehension.

Eight operators completed a questionnaire and reported a **high level of satisfaction with robotic rehabilitation**. The exoskeleton is praised for its usability, including aspects such as setup, adjustment, manipulation, **intuitiveness, and patient comfort**. Six out of eight operators found it **effective in achieving their therapeutic objectives**, while seven agreed that the most significant benefit of Atalante is its **positive impact on patient motivation**.

➤ **We can conclude that the use of Atalante X exoskeleton is safe and feasible with this population.**

Exoskeleton sessions may aid in improving functional gait with:

Significant improvements in WISCI II scores after exoskeleton sessions, with the mean score increasing from 1.3 ± 3.4 to 2.9 ± 5.6 ($p=0.004$)

Notable gains in SCIM III global and subscale scores for self-care ($p=0.042$) and mobility ($p=0.038$)

FDA clearance under K232077.

Atalante X is intended to perform ambulatory functions and mobility exercises, hands-free, in rehabilitation institutions under the supervision of a trained operator for the following populations: Individuals with hemiplegia due to cerebrovascular accident (CVA) and Individuals with spinal cord injuries at levels T5 to L5 (SCI).

The operator must complete a training program prior to use of the device. Atalante X is intended to be used on adolescents of 18 years and older, and adults able to tolerate a stand-up position. The device is not intended for sports or stair climbing.

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