

SARA Plus and Task-Specific Training in a Patient with Anoxic Encephalopathy

Olivia Levi, SPT and Erica Kiernan, PT, DPT, OTR/L, MOT

PURPOSE:

Anoxic encephalopathy is an injury to the brain that occurs when the brain is deprived of oxygen for too long.¹ Due to the extent of the injury, anoxic encephalopathy is the primary cause of death in 68% of inpatient cardiac arrest and 23% of out of hospital cardiac arrests.²

The purpose of this case report is to describe the benefits of using a task-specific approach and the SARA plus to improve balance and gait in a patient with anoxic encephalopathy.

CASE DESCRIPTION:

Body Structure/Function:
Anoxic encephalopathy
Hypotonic R UE, LE, and L LE
Hypertonic L UE
A&O x 1 with cuing

Personal Factors
49 years old
Male
Single father of three girls

Environmental Factors:
Small business owner

Activity Restrictions:
Unable to ambulate independently
Max A x 3 for transfers
Unable to perform any ADLs independently

Participation Restrictions
Unable to go to concerts and movies with his friends and family
Unable to work at his business

METHODS:

	Interventions
Week 1	<ul style="list-style-type: none"> • PROM • Stretching • Bed mobility • Balance: forward trunk reaches and lateral trunk reaches
Week 2	<ul style="list-style-type: none"> • Static sitting balance • Cervical AAROM in all directions • Standing in SARA Plus
Week 3	<ul style="list-style-type: none"> • Weight shifts, chest bumps, and standing marches in SARA plus • AROM for hip, shoulder, ankle, knee, wrist, and elbow • Stretching wrist and elbow flexors with Poseys
Week 4	<ul style="list-style-type: none"> • Sit to stands and mini squats using SARA plus • Dynamic balance • Gait training with rolling walker
Week 5	<ul style="list-style-type: none"> • Gait training with rolling walker • Transfers • Static and dynamic balance



RESULTS:

Outcomes	Initial	Discharge
Moss Attention Rating Scale	48/110	68/110
Trunk Impairment Scale	0/23	5/23
Modified Functional Reach	0 in	17 in
Gait	Unable	25 ft with min A and rolling walker

CONCLUSION:

This case demonstrated the positive results of incorporating repetitive, task-specific, and early use of the SARA plus for gait training. With these interventions, the patient was able to ambulate 25 ft and transfer from sit to stand with the use of a rolling walker and minimum assistance. He was also able to maintain static sitting balance for 32 seconds independently and reach 17 inches outside of his base of support.

REFERENCES:

Please scan for reference list.

