



**EMPOWERED
REJUVENATION, LLC**

Supporting the health and well-being of children and adults

**Case Study:
Effects of O2 Chair Oxygen Therapy on Cancer Patient**

Preliminary Data Review

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For further information on this study and the O2 Chair, please send an email to O2@empowerednetwork.us or call 214-532-4478. Visit our website at <http://www.empowerednetwork.us/empowered-rejuvenation.html>

Overview

Empowered Rejuvenation, LLC is currently conducting research regarding the effects of oxygen therapy on a cancer patient. The O2 Chair is utilized as the oxygen delivery vehicle. The client (CP1) began O2 Chair sessions on October 2, 2018. Data collection and findings to date are discussed below. CP1 will continue to utilize the O2 Chair for the foreseeable future.

Client Profile

CP1 is a 53-year old female who resides in Texas. A pre-myeloma indicator, monoclonal gammopathy (MGUS) was identified during non-related blood lab work in October 2017. CP1's oncologist indicated escalation of critical indicators in March 2018. Multiple myeloma (bone marrow cancer) was designated as the cancer condition.

Chemo-therapy commenced in April 2018. CP1 was administered Kyprolis via infusion therapy two times per week for the period of April through July 2018. Because of successful remediation of the multiple myeloma indicators, CP1 was scheduled for autologous stem cell transplant in September 2018.

Due to complications related to a central catheter line, CP1 was admitted to MD Anderson Cancer Center in Houston, Texas on September 6, 2018. In preparation for the stem cell transplant, a final chemotherapy session occurred, while an inpatient, on September 16, 2018. Stem cell re-infusion occurred on September 18, 2018. CP1 was released from MD Anderson on October 1, 2018. Full recovery is expected to take 60 – 90 days.

During the in-patient stay as well as after release, CP1 experienced chemo-therapy and stem cell transplant issues and side-effects including: blood pressure variations; nausea; extreme fatigue; muscular pain; (some) shortness of breath as measured by incentive spirometry; and, hair loss. O2 Chair sessions commenced at 14 days post-stem cell transplant (T + 14).

Methodology/Preliminary Data Review

Prior to each O2 Chair session, blood pressure readings¹ were recorded. Qualitative data based on client input was also recorded. After each session, blood pressure measurements were recorded. The client measured pulmonary function via a spirometer² (supplied by MD Anderson) at the conclusion of each O2 Chair session.

In order to develop baseline data, chair functions were kept consistent:

- Oxygen flow is set on “High”
- Oxygen is delivered through the stem (not nose cannula)

¹ An automatic wrist cuff device is used.

² Spirometry is a simple test to measure how much (volume) and how fast (flow) a person can move air into and out of the lungs.

Methodology/Preliminary Data Review (continued)

- “Swing” is not used.
- “Heat” is not used.

Function variables are included in the following table:

Date	O2 Session Length	O2 Strength	Swing	Heat	Delivery
BASELINE: 10/2/2018	10 minutes	High	No	No	Stem
10/4/2018	10 minutes	High	No	No	Stem
10/5/2018	10 minutes	High	No	No	Stem
10/5/2018	10 minutes	High	No	No	Stem
10/6/2018	15 minutes	High	No	No	Stem
10/6/2018	15 minutes	High	No	No	Stem
10/8/2018	15 minutes	High	No	No	Stem

The time in the O2 Chair for the first four (4) sessions was 10 minutes per session. The time was increased to 15 minutes for the subsequent sessions. CP1 used the O2 Chair twice a day on two of the days recorded.

Blood pressure readings are illustrated in the table below:

Date	Pre-session BP/Systolic	Pre-session BP/Diastolic	Post-session BP/Systolic	Post-session BP/Diastolic	SYSTOLIC CHANGE	DIASTOLIC CHANGE
BASELINE: 10/2/2018	126	90				
10/4/2018	125	86	117	87	(8)	1
10/5/2018	103	72	106	76	3	4
10/5/2018	109	78	106	81	(3)	3
10/6/2018	101	73	92	71	(9)	(2)
10/6/2018	108	90	108	90	0	0
10/8/2018	95	70	90	67	(5)	(3)

Regular use of the O2 Chair appears to have a positive impact on blood pressure. CP1’s baseline blood pressure was 126/90. O2 Chair pre and post-session data indicate decreases in systolic pressure on four out of six sessions; and, decreases in diastolic readings on two out six sessions.

Spirometry readings are as follows:

Date	Pre-session Spirometer	Post-session Spirometer
BASELINE: 10/2/2018	1250	
10/4/2018		2000
10/5/2018		1500
10/5/2018		2250
10/6/2018		2000
10/6/2018		2000
10/8/2018		1750

Oxygen therapy sessions appear to have a significant positive effect on pulmonary function. Over the course of the session, CP1 improved from a baseline level of 1250 ml to a high-level of 2250 ml after an individual session.

Qualitative and anecdotal information is included in the table below:

Date	Pre-session Client Notes	Post-session Client Notes	Other Variables
BASELINE: 10/2/2018	Headache	No headache	T + 14
10/4/2018	No headache/nausea	No nausea	
10/5/2018			
10/5/2018	Very tired	Much less tired	MD Anderson Cancer Center Blood Specimen collection
10/6/2018	Muscle aches and tightness	Fewer aches and tightness/feels better	
10/6/2018	60-minute pre-session massage	No aches	
10/8/2018	Feels good	Feels good	

CP1 reported positive results after nearly every O2 Chair experience. The positive effects such as alleviation of headaches and/or muscle pain seem to sustain for at least the remainder of the day of the session. CP1 has reported increased energy; increased alertness; and diminished fatigue after O2 Chair sessions.

Summary

CP1, a cancer patient, has experienced positive results from oxygen therapy via utilization of the O2 Chair. These results have occurred after a limited number of sessions over a short period of time. The client will continue to use the O2 Chair with continued data collection. These limited results appear to have significant ramifications for cancer patients. There is a need for expanded research in this area.