재활보조기구

게시일시 및 장소 : 10 월 19 일(토) 08:30-12:30 Room G(3F) 질의응답 일시 및 장소 : 10 월 19 일(토) 11:00-11:30 Room G(3F)

P 3-35

## Development of Hybrid-Web Based Self-Training Rehab Program for Cardiocerebrovascular Patients

Eun Kyoung Kang<sup>1\*+</sup>, Sora Baek<sup>1</sup>, Young-Kee Min<sup>1</sup>, Yuncheol Ha<sup>1</sup>, Uk-Ju An<sup>1</sup>, Jae Min Mok<sup>1</sup>, Eun Ji Shin<sup>1</sup>, Hye Mi Kim<sup>1</sup>, Jae Kook Lee<sup>1</sup>, Hee Joo Kim<sup>1</sup>, Chan Heo<sup>2</sup>

Kangwon National University Hospital , Regional Cardiocerebrovascular Center and Department of Rehabilitation Medicine<sup>1</sup>, Nasaro, www.nasaro.co.kr<sup>2</sup>

## Introduction

Cardio-cerebrovascular Diseases have been known as serious vascular diseases related to high mortality rate and life-long disabilities. Korean Government established the several Regional Cardio-cerebrovascular centers in 2008 and has been supported their operations financially and politically. Moreover, their project fields has been widen from in-hospital to out of-hospital as community. For Rehabilitation part, disability-related life limitations are main issues in community care, and limited resources of rehabilitation have been made cardio-cerebrovascular patients dropped out of continuous rehabilitation care. Thus, for the connected rehab program from hospital to community, easily approaching web-based self-based program was developed by a Regional Cardiocerebrovascular Center.

## **Methods and Results**

Multidisciplinary Rehab Team of a Regional Cardio-cerebrovascular Center in OO National University Hospital participated in this project. For multi-device application, Hybrid-Web system was applied. Self-Training Rehab Program was composed of cardiac and cerebrovascular rehab parts mainly, and cerebrovascular rehab part was re-divided by cognitive, speech, and swallowing rehabilitations (http://www.kwrehab.co.kr/main/). Each part consists of video clips or touch/click based task-reaction works. All video clips were up-loaded on youtube.com(https://www.youtube.com/channel/UC3IQNBKAUduFCYpU70M6cJQ) for freely uses. Now, these programs are applying to in-hospital patients initially, and will be trying to home-based training. Moreover, up-dating of contents in physical and activities of daily living Rehab Self-Training programs are on-going in 2019 with newly composed Multidisciplinary Rehab Team.

## Conclusion

Development of technology has been changed the form of rehabilitation approach. Hybrid-Web Based Self-Training Rehab Program is easily assessable and overcomes the place restrictions. Moreover, quantitative analysis of patient's use and improvement is possible without complex process. The sense of duty and feeling of rewarded might make our Multidisciplinary Rehab Team of a Regional Cardio-cerebrovascular Center in a National University Hospital do more jobs without any compensation despite of limited time and budget.

Acknowledgment :This project was supported by Korea Centers for Disease Control and Prevention, Ministry of Health and Welfare of South Korea.



Fig. 1 Main Home



Fig. 2 Cardiac Rehabilitation Program

억력				
숫자와 물건 기억하기	거꾸로 외우기	7	장보기	길찾기
진열대에서 물건의 위치를 기	억하세요			
				난이도:하 1/5
_	1			
_	3	4	5	
	목록보기	시작	상위 난이도	

Fig. 3 Cognitive Rehabilitation Program