Quality of Life after out-of-hospital Cardiac Arrest: Is there a difference between men and women?

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Background

Survival after out-of-hospital cardiac arrest (OHCA) increases but there is missing data concerning the quality of life of affected patients (pts). Former studies reported on different survival rates and outcomes between men and women after OHCA [1].Therefore, the question arises if there is a gender-related difference in quality of life after OHCA.

Objectives

This study aims to investigate psychological effects of out-of-hospital cardiopulmonary resuscitation and if there is a gender-related difference in quality of life.

Methods

All pts who were admitted to our hospital after OHCA between January 1st 2008 and June 30th 2015 and could be discharged in a good neurological condition were asked to fill out SF-36 questionnaires. For statistical analysis the mean, standard deviation, chi-square-test and student’s t-test were used (level of significance $p < 0.05$).

Results

56 pts (20,0%) of in total 280 survivors of OHCA were discharged from hospital in a good neurological condition (Cerebral performance Category (CPC) 1 or 2). 20 of those (35,7%) were willing to participate in this study, among them 11 women and 9 men with an average age of $61,3 \pm 14,0$ years [range 38,0-86,0 years]. Cardiac arrest was witnessed in 17 cases (85,0%) and first responder CPR was performed in 14 cases (70,0%). 16 pts (80,0%) had an initially shockable rhythm.

As post-resuscitation care coronary angiography was performed in 19 pts (95,00%), 12 (63,12%) of those with coronary interventions (PCI), and a targeted temperature management (TTM) was applied in 13 cases (65,00%). The comparison of men and women revealed no differences regarding these parameters mentioned above (Tab.1). Comparing men and women we neither found a statistically significant difference in the SF-36-subscales nor in the summary scores (Tab. 2-3).

Conclusion:

Former studies reported on worse survival rates of women after OHCA. However, at least in those patients who could be discharged from hospital in a good neurological condition, quality of life did not differ between men and women.

	Male (n=9)	Female (n=11)	p value
Age (years)	66,67 ± 14,25	56,81 ± 12,66	0,119
Witnessed arrest	8	9	0,660
First responder CPR	8	6	0,095
Shockable rhythm	7	9	0,822
Coronary angiography	9	10	0,353
PCI	7	5	0,142
TTM	6	7	0,888

Tab. 1: Comparison of male and female: clinical data

	Physical Component Summary	Mental Component Summary
male (n=9)	44,20 ± 13,60	45,56 ± 10,86
female (n=11)	37,05 ± 13,32	39,97 ± 9,03
p-value	0,310	0,273
95% confidence interval	-7,35 -21,67	-4,88 - 17,40

Tab. 2: Comparison of men and women: physical component summary and mental component summary

	Physical functioning	Role functioning/physical	Pain	General health	Energy/fatigue	Social functioning	Role functioning/emotional	Emotional well-being
male (n=9)	59,86 ± 36,71	37,50 ± 46,29	74,89 ± 31,37	57,12 ± 22,49	43,13 ± 27,12	75,00 ± 31,25	42,86 ± 46,00	73,00 ± 20,26
Female (n=11)	45,00 ± 35,21	43,18 ± 47,55	50,45 ± 31,73	47,36 ± 18,06	39,55 ± 19,68	57,95 ± 29,19	36,36 ± 50,45	55,55 ± 18,20
p-value	0,385	0,798	0,102	0,308	0,742	0,224	0,787	0,065
95%-CI	-20,27 - 49,99	-51,80 - 40,43	-5,38 - 54,25	-9,85 - 29,37	-19,00 - 26,16	-11,40 - 45,49	-43,56 - 56,54	-1,24 - 36,15

Tab. 3: Comparison of men and women: mean and standard deviation of the subscales physical functioning, role functioning/physical, pain and general health, energy/fatigue, social functioning, role functioning/emotional and emotional well-being

Conflict of interest: None