The relationship between self-rated health, physical function and activity capacity in adult burn patients 6 and 12 months after injury.

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Aim

To examine the relationship between self-rated health, physical function and capacity in performing activities among adults with burns.

Background

Approximately 38,000 people in Sweden seek medical care due to burns each year. About 400 of them need specialized care at a Burn center.

Physical function and daily activities are often affected after a burn injury. As a consequence this might also affect the experience of health related QoL. We expected that burn victims with reduced physical function and/or capacity in performing activities would have decreased self-rated health.

Method

Adult burn patients that come for follow-up at the Uppsala University Hospital Burn Center 6 and 12 months post-burn were asked to participate and were assessed by treating OT and PT.

50 consecutive patients were included from November 2015 to February 2017, 35 men (70 %) and 15 women aged 18 to 80 years (mean=44,5) with a burn injury of 0,25 to 83,5 TBSA % (mean=13,5). Length of stay varied from 1 to 113 days (m=17,4).

Results

There was a significant correlation at **6 months** post burn between self-rated health (EQ-5D VAS) and

- activity performance (DASH, Check your health Activity)
- muscle function (IMF)
- the patients' subjective scar assessment (POSAS)

The significant correlations at **6 months** were not found at **12 months** except for self-rated activity (Check your health Activity). There were no significant correlation between self-rated health (EQ-5D) and TBSA % as was expected.

Assessment (range)	6 months			12 months		
	n	median (range) SD		n	median (range) SD	
Check your health – QoL (0-100)	41	80,0 (30-100) 20,0		37	80,0 (40-100) 16,3	
Check your health – Activity (0-100)	30	82,5 (40-100) 19,5		32	85,0 (50-100) 15,0	
DASH (0-100)	30	10,8 (0-68,75) 19,9		27	5,8 (0-54,2) 17,8	
EQ-5D VAS (0-100)	44	80,0 (20-100) 19,2		38	80,0 (30-100) 15,8	
Function assessment (10-60)	26	58,5 (29-60) 6,8		25	60,0 (33-60) 5,8	
IMF total (0-40)	18	0,0 (0-21) 6,6		17	0,0 (0-23) 6,6	
POSAS Patient, Overall (1-10)	38	6,0 (1-10) 2,6		37	7,0 (2-10) 2,2	

Assessments:

- Disabilities of the Arm, Shoulder and Hand Questionnaire (DASH)
- EQ-5D Health Questionnaire
- The Patient and Observer Scar Assessment Scale (POSAS)
- IMF (Index of Muscle Function) – lower extremities
- Function assessment - upper extremities
- Check your health (Burns) (Wikblad et al. 2013)

Conclusion

The level of physical function affects self-rated health early post burn. Gradually other factors are more likely to affect the health assessment. However, small subgroups make the results uncertain.

Correlations to EQ-5D	6 months			12 months		
	n	p	r	n	p	r
Check your health (Burns) Activity ¹	29	0,000**	0,711	32	0,000**	0,760
DASH ¹	28	0,001**	-0,613	27	0,135	-0,295
Function assessment ¹	24	0,318	0,213	25	0,899	0,027
IMF total ¹	16	0,002**	-0,708	17	0,751	-0,083
POSAS ¹	38	0,000**	-0,552	37	0,087	-0,285
TBSA% ²	43	0,841	0,032	37	0,270	-0,186

¹ Spearman's rho, ² Pearson correlation, SPSS Statistics 23