



Where are they now?

Traumatic amputee outcomes 5 years post injury

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Introduction

Whilst health-related outcomes in the dysvascular amputee population are well known internationally, there is limited research into how these vary from the traumatic amputee population. As a group with fewer co-morbidities, younger age and higher expectations for return to life roles, further research is necessary to inform healthcare service delivery and maximise functional outcomes. The Epworth Amputee Program, specialising in traumatic amputee rehabilitation since 2012, initiated the longitudinal prospective study investigating both physical and mental health domains in post-traumatic amputation.

Aims

To examine health-related outcomes for people at five years following traumatic lower limb amputation.

Methodology

Subjects (N=10) were recruited from the amputee rehabilitation program at Epworth Hawthorn between 2014 and 2020. Self-reported questionnaires assessing anxiety, depression, mobility, post-traumatic stress, pain, self-efficacy and prosthetic satisfaction were administered at 4 months, 8 months, 1 year, 2 years and 5 years following amputation. Ethics approved by Monash Health Ref: RES-19-0000-434E.

Results

Demographics

Ninety percent of subjects (N=9) are male. The median age at time of amputation was 58.8 years. The mean Injury Severity Score was 16, indicating major traumatic injury. Forty percent (N=4) had a concurrent traumatic brain injury.

Health-Related Problems

Prosthetic Evaluation Questionnaire (PEQ)

Questions addressing multiple domains including prosthetic ambulation, appearance and perceived social burden. At five years, prosthetic ambulation was rated at its highest, reflecting the high PCS score in the SF-36. Contrastingly, both appearance and social burden scored the lowest scores at 5 years when compared to one or two years.

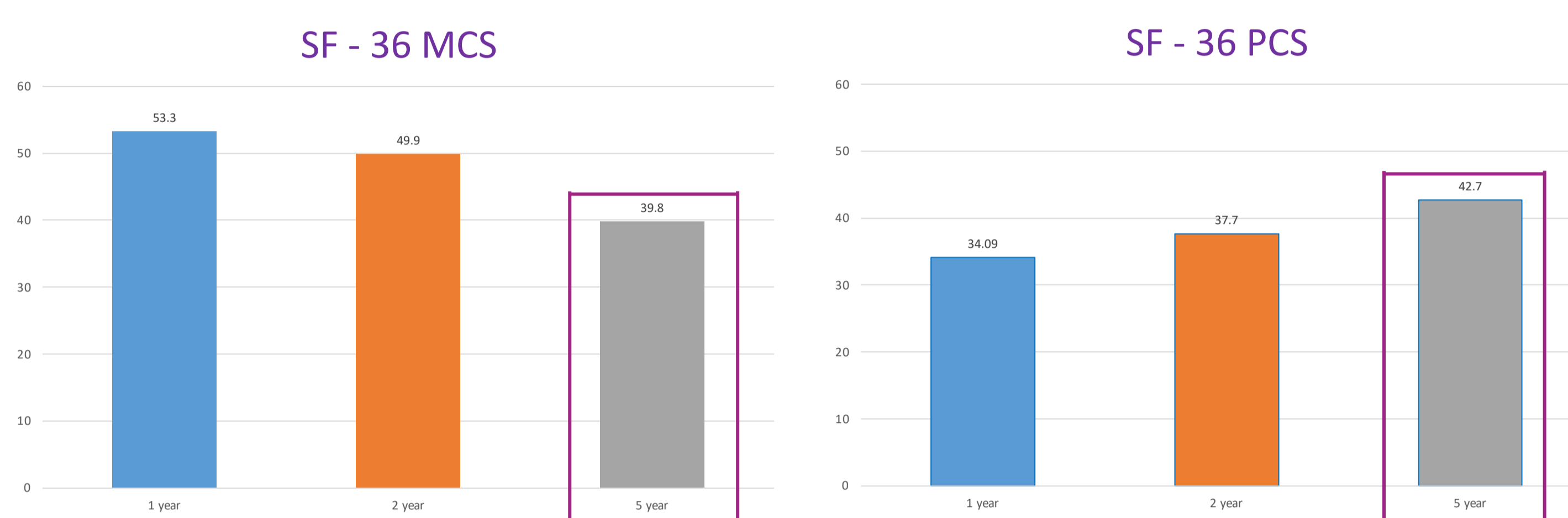
Hospital Anxiety and Depression Scale (HADS)

In the HADS, 40% of subjects reported anxiety in the abnormal range at five years, up from 30% at two years. Depression scores were also elevated, with 50% in the abnormal range at five years compared with 35% at two years.

Results continued

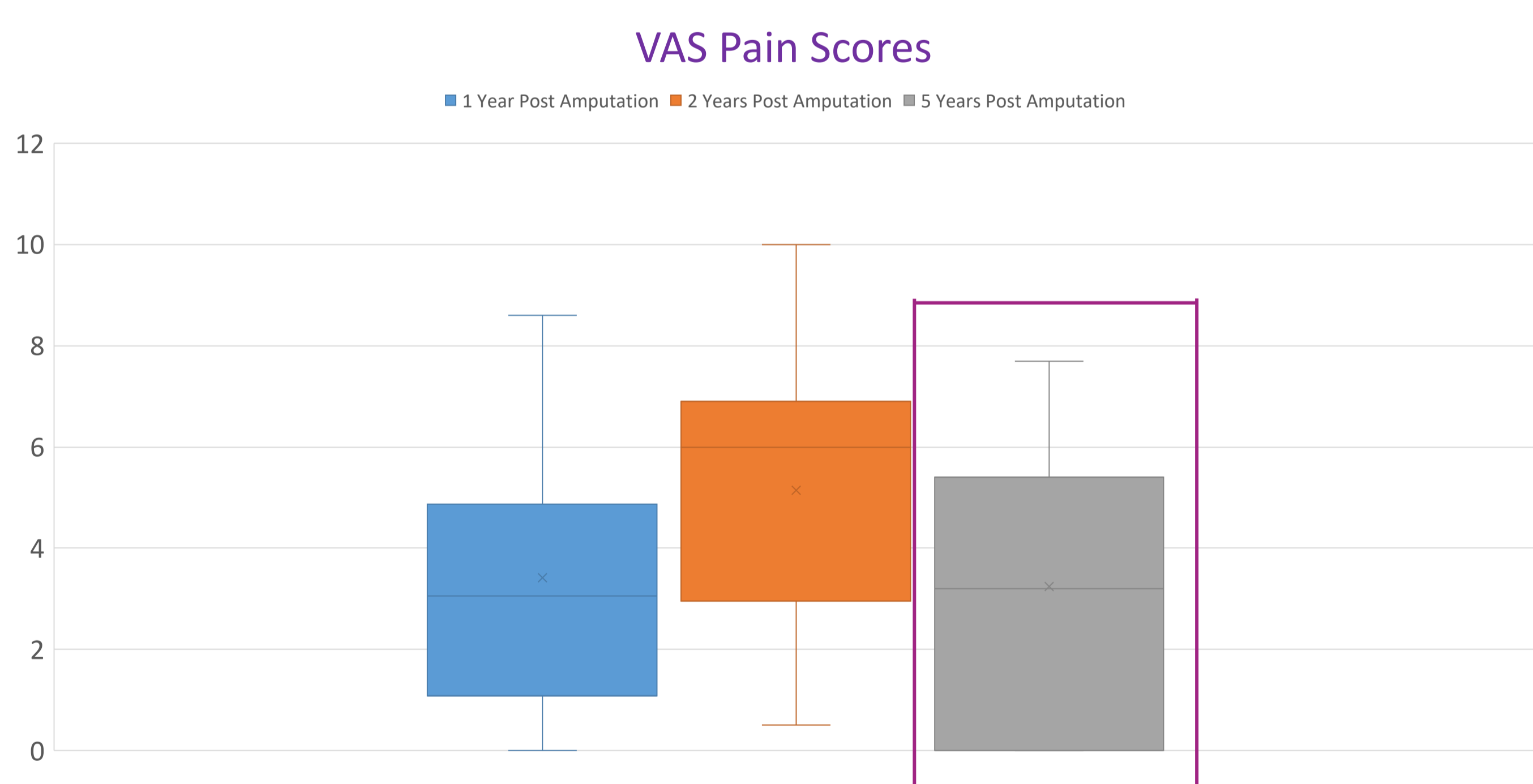
Quality of Life: SF - 36

The score of the SF-36 is divided into two components: the Physical Component Summary (PCS) and the Mental Component Summary (MCS). The PCS asks questions relating to pain, physical function and role limitations due to physical health, whilst the MCS asks about mental health, energy and fatigue levels, and general health perceptions. At five years, the MCS showed the poorest score from the time periods, with the PCS demonstrating the highest.



Pain

At five years, 55.6% of subjects rated their pain on the Visual Analogue Scale (VAS) as moderate, with a median score of 3.2. Pain descriptors most commonly used included aching, shooting, sharp and stabbing.



Conclusions

At five years following traumatic amputation, despite perceived improvements in physical health, persistent pain remains a large limiting factor in returning to normal life roles.

The mental health scores of HADS and MCS in the SF36 are reported as poorer in the traumatic amputee population at five years than earlier time points. This deterioration over time indicates the importance of ongoing intervention for this population. More detailed analysis into the barriers of intervention and rehabilitation access at this later stage would be beneficial.

With limitations including a small cohort size and unknown mental health baselines measures, ongoing research is necessary to inform best practise for amputee rehabilitation.