

PERSONAL VIEW

## Good quality of life after emergency embolisation in postpartum haemorrhage

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### Abstract

Twenty-one women, who were treated for postpartum haemorrhage by embolisation of the uterine artery, filled in a series of questionnaires. The questionnaires assessed personality characteristics, illness perceptions, coping and quality of life (QoL). The women also made drawings of their uterus. The results suggest that women who experience emergency embolisation have good QoL at follow-up.

**Keywords:** *Postpartum, women's health, mental health, obstetrics, quality of life*

### Introduction

Arterial embolisation of the uterine artery in case of excessive postpartum haemorrhage is a highly successful, uterus-sparing, procedure with favourable long-term (fertility) outcome [1,2]. From our observations, the event can be traumatic for both the patient and her partner and their health care providers. We theorise that this may subsequently impact on quality of life (QoL). Currently, there is no data available on QoL after emergency embolisation. This is an important issue so as the best follow-up care can be provided. This letter reports an initial investigation into women's QoL at follow-up in a sample of our own patients.

Between 1995 and 2005, 28 women underwent emergency embolisation for severe postpartum haemorrhage in our institute. Seven women were excluded because of incomplete data. In 2005, the

remaining 21 women (clinical characteristics are presented in Table I) were asked to complete the STAI [3] anxiety measure, the Brief Illness Perception Questionnaire (Brief IPQ) [4], Symptom Checklist 90 (SCL-90) [5], Utrecht Coping List (UCL) [6] and the RAND (also known as SF-36) QoL measure [7,8]. Women were also asked to draw a picture of what they thought their uterus had looked like during and after the embolisation procedure. Asking patients to draw their body is a new method to assess illness perceptions [9,10]. It has the advantage of circumventing possible social desirability issues in questionnaires. Broadbent et al. demonstrated how patients' drawings of damage to the heart following myocardial infarction, predicted return to work and anxiety better than clinical indicators of damage. Drawings are a useful tool to understand patients' ideas about what has happened to their organs following an illness event.

Results and discussion

Embolisation patients reported similar symptom scores to the Dutch population and better scores than family physician patients; they had similar coping scores to healthy women aged 25–35, and lower trait anxiety compared to a sample of healthy women and ex-radiotherapy patients. Their QoL was at least as good as healthy women and better scores were obtained on emotional limitations and mental health (Figure 1). No meaningful relationships were found between QoL and clinical characteristics, such as the amount of administrated packed cells or length of hospital stay. The drawings showed that women had very vivid conceptualisations of the embolisation, with post-embolisation drawings indicating recovery (Figure 2).

These findings are consistent with other QoL studies after a potentially traumatic illness event. For example, Sargent and Wainwright published a study on QoL after emergency liver transplant in patients suffering from acute liver failure [11]. The authors reported similar results: the majority of patients reported a remarkably good QoL, comparable to the pretransplant situation.

The seven women who could not be included appear to have been in a worse condition at the time of embolisation, considering a twofold higher degree of blood products administered and three out of seven received a hysterectomy. These women may have scored differently on QOL questionnaires and drawings, although we found that QOL was not related to clinical characteristics in the rest of the sample. A limitation in our study is the retrospective nature of the design. Future research on psychosocial concomitants of embolisation should preferably use a prospective design.

These results suggest that women who experience emergency embolisation have good QoL at long-term follow-up. They recover well both physically and mentally as shown by the scores on the RAND scales. Consistent with this, the intense drawings of the uterus during the procedure calm down to stable pictures of normal uteri at follow-up, suggesting they see themselves as healthy at follow-up.

It is interesting to consider why these women have such good QoL following such a dramatic event. Could it be that health care providers overestimate the impact of the event, as they are fully part of the dramatic events before and during embolisation? The majority of the women reported they thought they were going to die during the procedure so they must have realised the severity of their situation. The results may also be explained by so-called ‘benefit finding’ [12,13]. People who experienced a traumatic event have the capacity to find benefits from the

Table I. Patient characteristics.

	Included women, n = 21
Mean maternal age (y) (range)	32.7 (24–46)
Educational level	
(1) Low, no. (%)	4 (19)
(2) Intermediate, no. (%)	11 (52)
(3) High, no. (%)	6 (29)
Weeks of gestation (range)	38 (27–42)
Parity (range)	0–3
Nulliparity, no. (%)	9 (43)
Previous CS, no. (%)	1 (5)
Previous PPH, no. (%)	0 (0)
Partus modus	
Spontaneous, no. (%)	11 (52)
Ventouse, no. (%)	1 (5)
Caesarean, no. (%)	9 (43)
Mean total blood loss (l) (range)	5.8 (2.2–15)
Mean no of blood products	17.4 (7–47)
Hysterectomy, no.	2
Days of hospital stay	8.3 (3–30)

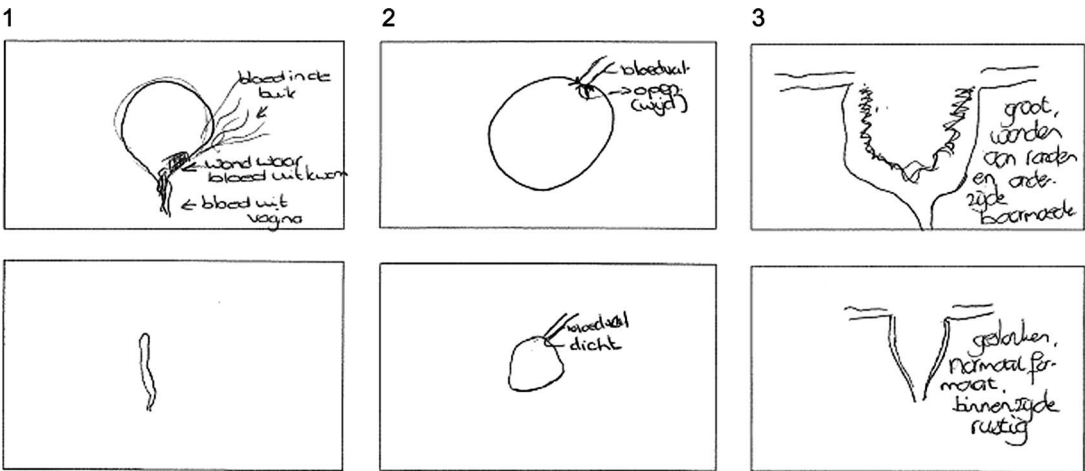
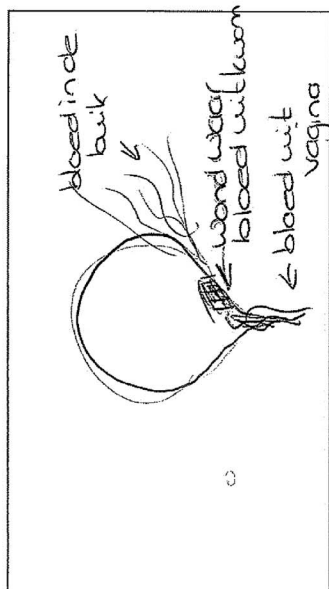


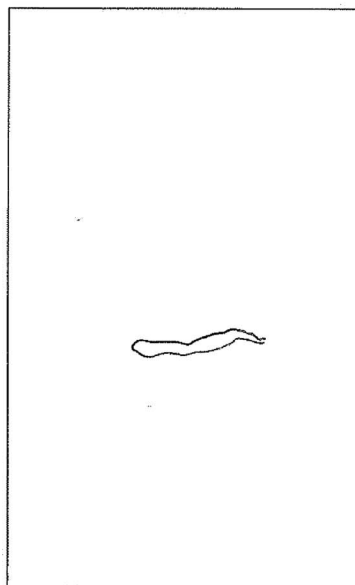
Figure 1. Graphical representation of RAND scores by patients and reference groups. Reference group 1: healthy Dutch women aged 18–65 years. Reference group 2: Dutch adults aged 25–34 years.

### Patient 1

Hoe de baarmoeder eruit zag tijdens het bloedverlies:

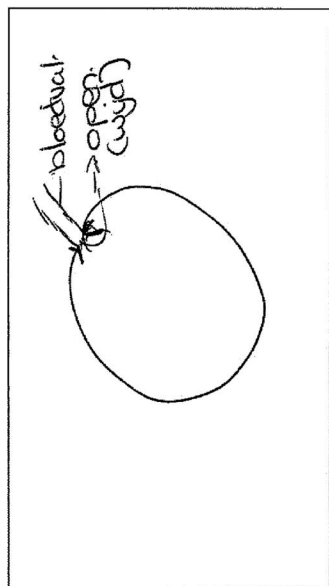


Hoe de baarmoeder er nu uit ziet.

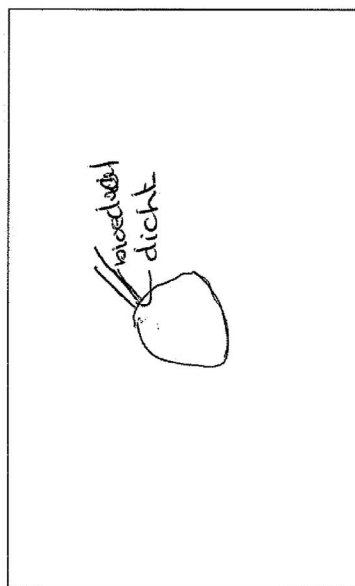


### Patient 2

Hoe de baarmoeder eruit zag tijdens het bloedverlies:



Hoe de baarmoeder er nu uit ziet.



### Patient 3

Hoe de baarmoeder eruit zag tijdens het bloedverlies:



Hoe de baarmoeder er nu uit ziet.

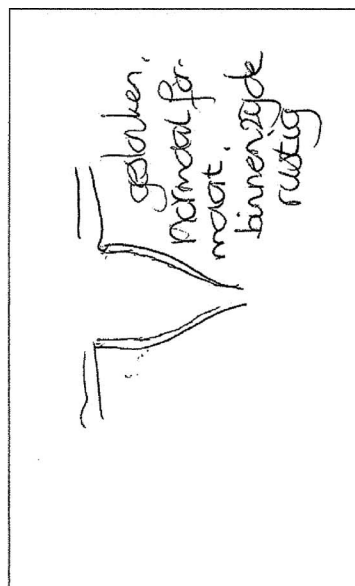


Figure 2. Examples of patients' drawings of their uterus during and after embolisation. Clarifying text: Drawing 1 Top: abdominal blood. Bottom: blood from vagina. Drawing 2 Top: wide open vessel. Bottom: vessel closed. Drawing 3 Top: big wounds lateral and lower side of uterus. Bottom: closed, normal size, calm inner side.

situation, like a new perspective on the important things in life. Our findings probably reflect the resilience of most people in the face of serious adversity.

Future research on QoL after obstetrical (emergency) events requires larger samples and should include the psychological impact on partners and also the impact on physicians and other health care providers. During the interviews it became clear that being a bystander might be the most traumatic position, as one partner reported months after the delivery: 'I can still smell the blood'.

### Acknowledgements

We thank the women and their partners for their collaboration in this study. GS and LSR designed the database, processed all data and wrote the manuscript. CS interviewed all women. EB contributed to the data-analysis of the drawings, interpretation of the findings, and writing of the manuscript. AAK contributed to the design and theoretical background of the study, helped in designing the questionnaire, supervised the statistical analyses, and wrote parts of the manuscript. SS initiated and supervised the project and took part in the discussion on the findings and manuscript.

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#### Current knowledge on the subject

- Currently there is no data available on quality of life after emergency embolisation.

#### What this study adds

- This study is the first to describe quality of life of women who experienced emergency embolisation of the uterus because of postpartum haemorrhage. Besides questionnaires, a novel method (drawings of the uterus) was used.