

The BliPP Study:
Blood Loss in the Postnatal Period –
Final Report

Jo Alexander
Jo Garcia
Sally Marchant

February 1997, Reprinted June 2000

ISBN: 1-85899-094-7

© Institute of Health and Community Studies
Bournemouth University

Acknowledgements

This survey and case control study was funded by the South and West NHS Executive Research and Development Committee (Response Mode), as a collaboration between the University of Portsmouth and the National Perinatal Epidemiology Unit, Oxford.

Abstract

Title of study	Midwives' assessment of postpartum uterine involution: implications for clinical practice and resource management.
Objectives	<ul style="list-style-type: none">• To describe the range of normal postnatal vaginal loss as reported by women;• To identify women who seek medical advice or who require referral and/or treatment;• To determine factors which predispose to excessive bleeding in the postnatal period
Setting	Two health districts in the SW Region.
Design	The study had three parts: <ul style="list-style-type: none">• A prospective survey of postnatal mothers (n=350);• A GP card notification study (30 practices);• A case control study (265 cases, 556 controls).
Main outcome measures	<ul style="list-style-type: none">• Descriptive: pattern of normal vaginal loss and abnormalities;• Analytic: medical, obstetric, midwifery and demographic factors associated with secondary postpartum bleeding.
Main results	<p>The pattern of normal vaginal loss in the first 12 weeks after birth varies considerably from the description in standard textbooks upon which clinical assessment is currently based.</p> <p>At three months, 20% of women reported problems with vaginal loss; 12% had sought help for these.</p> <p>The study supports previous estimates of 1% of women undergoing ERPC. A further 1% are admitted to hospital for vaginal loss problems.</p> <p>Factors significantly associated with abnormalities of postnatal vaginal loss included:</p> <ul style="list-style-type: none">• Smoking during pregnancy;• Previous gynaecological treatment (excluding termination of pregnancy);• A retained placenta or secondary postpartum haemorrhage in a previous pregnancy;

- Incomplete placenta or post delivery blood loss of more than 1,000mls in the index pregnancy.

Abnormal midwifery observations of uterine involution were far more common in those cases where vaginal loss problems presented in the postnatal period than in controls.

Discussion

This study has provided the first estimates of the full extent of this morbidity for women, and the pattern of referral, investigation and treatment. The resource implications for the NHS have been outlined. Antecedent factors have been identified more reliably and the role of routine assessment by midwives explored.

Executive Summary

A prospective survey of unselected new mothers, a GP card notification study and a case control study included over 1,000 women in two health districts. The study aimed to investigate:

- Women's experiences of, and problems with, vaginal loss from 24 hours to three months after a birth;
- Risk factors for postnatal bleeding problems;
- The likely value of routine midwifery observations in relation to these problems.

Main Findings

Women's postnatal vaginal loss is considerably more varied in type, quantity and duration than suggested by textbooks. For example, 23% of women report a vaginal loss for up to 6 weeks after the birth and 6% for up to 12 weeks.

Women do not always know what to expect about vaginal blood loss, or involution of the uterus following the birth. Seventeen percent of women reported being surprised by the amount of vaginal loss and a further 2% were shocked. Twenty percent of the women did not know when they would have a period after the birth, or what might affect this.

On the basis of the three month questionnaire in the women's survey, 20% of women reported experiencing problems of excessive or prolonged vaginal loss and 12% said that they had sought help for these in the period up to three months after the birth.

Of the 48 women who were identified in the GP card notification study, 17 received antibiotics from the GP and 18 were referred for further tests or treatment.

The case control study supports previous estimates of around 1% of women undergoing evacuation of retained products of conception (ERPC). The study also showed that a further 1% are likely to receive care in hospital for vaginal loss problems without having an ERPC.

A number of factors were associated with problems of vaginal loss in the postnatal period. These included: smoking during pregnancy ($t=4.95$ $p<0.0005$), previous gynaecological treatment (excluding termination of pregnancy) [OR 1.56 (1.1, 2.2)], retained placenta in a previous pregnancy [OR 4.0 (1.48, 11.52)], secondary postpartum haemorrhage

following a previous pregnancy [OR 5.72 (2.04, 18.31)], birth weight in the index pregnancy less than 2,500 grams [OR 2.7 (1.51, 4.87)], incomplete placenta in the index pregnancy [OR 2.78 (1.34, 5.79)], post delivery blood loss in the index pregnancy of more than 1,000mls [OR 2.54 (1.09, 5.95)].

Abnormal midwifery observations of postnatal uterine involution were far more common in those cases where vaginal loss problems presented early in the postnatal period. Midwifery observations were also predictive of vaginal loss problems which occurred after discharge from midwifery care but less strongly so. Further analysis is required to assess the association between the observations undertaken by midwives and when the vaginal loss problems presented and/or required treatment. However there is no evidence that changes to the current assessment of uterine involution and lochia by midwives will improve this area of women's health in the postnatal period.

The study has produced detailed information that will allow the researchers to prepare information leaflets about normal and abnormal postnatal vaginal loss aimed at women and care givers. This is the subject of the next phase of the work (funded by S&W R&D) and now in progress.