

Factors affecting wound healing after major amputation for vascular disease: a review

M. ENEROTH

Department of Orthopaedics, University Hospital, Lund, Sweden

Introduction

There has been a continuous increase in the incidence of major lower limb amputations from the beginning of the century until the mid-1980s (Table 1). This increase has been attributed to the increasing number of elderly persons, diabetics and smokers (Liedberg and Persson, 1983). During the last decade, several reports from Scandinavia have mentioned a decreased incidence of major amputations (Larsson *et al.*,

1995; Larsson and Risberg, 1988; Persson *et al.*, 1989; Pohjalainen and Alaranta, 1988; Sembo *et al.*, 1996; Wahlberg *et al.*, 1994). Others have reported a reduction in the number of major amputations (Ebskov *et al.*, 1994; Eickhoff, 1993; Lindholt *et al.*, 1994; Luther, 1994; Lääperi *et al.*, 1993; Pedersen *et al.*, 1994; Pell *et al.*, 1994; Stenström *et al.*, 1992). The reduction has been attributed to better foot care among diabetics (Gibbons *et al.*, 1993; Larsson *et al.*, 1995), and an increase and improvement in vascular surgery (Ebskov *et al.*, 1994; Eickhoff, 1993; Giddings *et al.*, 1993; Jeans *et al.*, 1994; Lindholt *et al.*, 1994; Pedersen *et al.*,

All correspondence to be addressed to Magnus Eneroth, Department of Orthopaedics, University Hospital, S-221 85 Lund, Sweden. Tel: (+46) 46171448; Fax: (+46) 46130732.

Table 1. Incidence of major amputations.

Author(s)	Year of publication	Country	Incidence n/100,000	Period
Hanson	1964 ^a	Sweden	6-17	1947-62
Hierton and James	1973 ^a	Sweden	11-17	1947-69
Christensen	1976 ^b	Denmark	13	1961-71
Mandrup-Poulsen and Steen Jensen	1982 ^b	Denmark	30	1971-79
Liedberg and Persson	1983 ^b	Sweden	32	1979
Kald <i>et al.</i>	1989 ^b	Sweden	46	1980-82
Larsson and Risberg	1988 ^b	Sweden	38-30	1984-86
Pohjalainen and Alaranta	1988 ^a	Finland	33-28	1984-85
Jones	1990 ^a	Australia	23-24	1981, 1983-84
Lääperi <i>et al.</i>	1993 ^a	Finland	22	1989
Siitonen <i>et al.</i>	1993 ^b	Finland	27	1978-84
Wahlberg <i>et al.</i>	1994 ^a	Sweden	26-16	1987-91
Van Buskirk <i>et al.</i>	1994 ^d	USA	16	1985-87
Ebskov <i>et al.</i>	1994 ^a	Denmark	35, 25	1983, 1990
Larsson <i>et al.</i>	1995 ^c	Sweden	16-4	1982-93
Sernbo <i>et al.</i>	1996 ^b	Sweden	42, 22	1979, 1994

a = all causes of amputation included

b = peripheral vascular disease with or without diabetes

c = diabetic patients only

d = non-diabetic patients peripheral vascular disease