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Roles of Topical Vitamin E (Tocotrienol) in the Prevention of Post-surgical Hypertrophic Scars


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Introduction

- Hypertrophic scars
 - Common:
 - up to 64% of surgical incisions
 - wide range of functional and psychological impacts (Niessen *et al.*, 1998)



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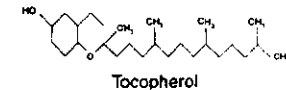
Introduction

- Vitamin E
 - increasingly popular among the public for scar prevention and treatment.
 - very little evidence from well-controlled and randomized clinical trials to justify its benefits for surgical scars.

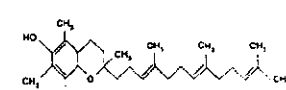
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Introduction

- Tocotrienols
 - subfamilies of vitamin E
 - differ structurally from tocopherols
 - three unsaturated double bonds in the hydrocarbon tails.



Tocopherol



Tocotrienol

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Rationale of study

1. Vitamin E – antioxidant effect
 - (Wan and Evans, 1999)
2. Vitamin E - inhibit inflammatory response and collagen synthesis
 - (Ehrlich *et al.*, 1972; Tappeiner *et al.*, 2010)

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Objectives of study

1. To evaluate the efficacy of 5% topical Vitamin E (Tocotrienol) in prevention of hypertrophic scar
2. To determine possible adverse reactions

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