



## 12. THE ROLE OF VEGF IN PSORIASIS

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**Introduction.** Psoriasis is a chronic inflammatory disease, which affects skin and joints. Psoriasis is also commonly associated with a increased capillary permeability, and excess VEGF production . As angiogenesis is one of the key features of psoriasis, various studies focus on the identification of pro-angiogenic mediators in psoriatic skin.

**Aim of the study.** Studying the role of VEGF in psoriasis

**Materials and methods.** An online database search of relevant published articles using the Cochrane Database of Systematic Reviews, PubMed, Embase and Google was performed via Google search.

**Results.** Histopathological markers of skin in psoriasis include: the infiltration of multiple immune cells, keratinocyte hyperplasia, activated mast cells, and accentuated vascularity in the dermis. Psoriasis is also commonly associated with a increased capillary permeability, and excess VEGF production. VEGF-A is highly expressed in the lesional skin of patients with psoriasis compared to non-lesional skin and healthy skin. In addition, the plasma levels of VEGF-A are higher in patients with psoriasis than in healthy individuals and levels correlate with disease severity. VEGF-A is mainly produced by activated keratinocytes in the skin of patients with psoriasis. Smaller amounts of VEGF-A are produced by fibroblasts and mast cells.

**Conclusion.** The VEGF-A receptors, VEGFR-1 and VEGFR-2 are expressed on blood endothelial cells. VEGFR-1 is also expressed on epidermal keratinocytes in healthy skin and in the skin of patients with psoriasis.

**Keywords.** Psoriasis skin, VEGF-1 receptors, VEGF-2 receptors.