

microvascular changes in the skin in patients with psoriasis

Barton, SP; Abdullah, MS; Marks, R

Abstract:

It has been suggested that there is a widespread abnormality of the capillaries in the skin of patients with psoriasis. This study was carried out to obtain more evidence on this point. Lesions of 20 patients with typical psoriasis, and uninvolved skin 3 cm from these lesions, were biopsied and compared with biopsies from 10 normal healthy control subjects. The dermal microvasculature was quantified in all these biopsies with regard to endothelial and luminal volume relative to the volume of dermal components of skin using stereological point counting methods utilizing the Delesse principle. The values for endothelial volume in specimens taken from the centre of the lesions did not differ significantly from those taken from the margins (33.6×10^{-3} and 35.8×10^{-3} , respectively). The same was true for the luminal volume from the two sites (9.1×10^{-3} and 10.0×10^{-3} , respectively). There was a highly significant difference, however, between the value for endothelial volume in biopsies from psoriatic patients compared to controls (P less than 0.001) and specimens from uninvolved psoriatic skin also showed a highly significant difference (P less than 0.001) from involved areas. There was no significant difference between uninvolved areas in psoriasis patients and control specimens. Significant differences were also found between values for control subjects and those for both involved and uninvolved psoriatic skin for luminal volume (P less than 0.001).