Urinary Tract Desquamation in Psoriasis

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Psoriasis may develop in skin and mucous membranes such as those of the mouth and genitalia. Involvement of the urinary tract has not been documented in the literature [1-3]. We hypothesized that in case of such involvement, desquamation of the urinary tract would be identified in the urine.

We took the concentration of desquamated urinary tract epithelium in a constant volume of ten times concentrated first morning urine as a criterion of cell maturation. Epithelial cells were counted in a Bürker chamber [4] using a microscope with a $\times 100$ magnification.

Urine samples were collected from patients suffering from untreated generalized chronic plaque psoriasis (23 males; mean age 41.1 years, range 20-75 years; 19 females; mean 41.9 years, range 19-68 years) and compared with urine samples from 28 healthy subjects (17 males and 11 females; mean age 42.3 years). In order to exclude any nonspecific finding [5-8], the subjects in both groups had no other disease and, particularly, no urinary tract disorder.

On average there were 45 epithelial cells in 1 ml of centrifuged first morning urine in the control group (14 in males and 92 in females). In psoriatic patients, however, there were 7.748 epithelial cells on average (2,465 in males and 15,928 in females) in the same volume of the urine, which is significantly higher ($p < 0.01$) compared with the control group.

Our patients had no grossly detectable plaques in other mucosae (e.g. mouth, glans penis). The urinary epithelium concentration, however, was significantly higher in psoriatics compared with healthy individuals.

These results suggest that this method can detect changes in the urinary tract mucosa of psoriatics suffering from no other urinary tract disease. Whether our results illustrate the effect of previous therapy against psoriasis on the urinary tract is under investigation.

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