



GENETICS AND GENODERMATOSES

## DERMOSCOPIC CHANGES OF MELANOCYTIC NEVI AFTER AFAMELANOTIDE IMPLANT

*Mariateresa Rossi<sup>(1)</sup> - Mariachiara Arisi<sup>(1)</sup> - Piergiacomo Calzavara-pinton<sup>(1)</sup>*

*Asst Spedali Civili Hospital, Dermatology, Brescia, Italy<sup>(1)</sup>*

**Background:** In Erythropoietic protoporphyria (EPP), the intracellular accumulation of protoporphyrin IX, causes phototoxic reactions in photo-exposed skin areas.

Afamelanotide is approved in the EU for the prevention of phototoxicity in adults with erythropoietic protoporphyria (EPP); it can induce an increase in the pigmentation of melanocytic lesions, but changes of dermoscopic features are not well known.

**Material and Methods:** We selected 10 adult EPP patients who fulfilled all the inclusion criteria to receive afamelanotide implant. Before implant, each patient underwent full clinical examination of the skin and photographs of the entire body and video-dermoscopic images of all nevi were captured. The same examination took place 1 month after the first implant and 3 months after the last afamelanotide implant.

**Results:** Seven patients had < 20 nevi on their body surface and three patients had 20-40 nevi (median 13.5; range 7-35). At baseline, lesions with suspicious clinical and dermoscopic features for malignant melanoma were never detected. The day after the implant, freckles developed in 5 patients and disappeared after one week. A month after the implant, at dermoscopic examination, all reticular and globular type-nevi showed a darkening of their pigmented network. In particular we observed an increasing of the number of dots and globules at the periphery of the nevi and an homogeneous widening of the reticular network. Dermoscopic changes disappeared three months after the last implant.

**Conclusion:** All patients showed a modification of their pigmented lesions after 1 month from the afamelanotide implant, but no atypical features were noted. In particular, dermoscopic changes regressed after 3 months. However, the present study doesn't investigate possible long term changes after multiple monthly afamelanotide implants.

