

The Rainbow Pattern and Rosettes in different types of Cutaneous Scars

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There were only a few publications interested in carsdermoscopy, the study of Min Gun Yoo et al. confirmed that vascular structures are significantly noticed in Keloids [1], the observation of Martin JM. et al. pointed out dermoscopy as a tool to detect remaining non absorbable sutures in surgical scars [2]. The correspondence of Pérez-Pérez L et al. [3] was the only one that reported the presence of the rainbow pattern and rosettes in a case of keloid.

In this report, we confirm the findings of Pérez et al., and we present three cases of different types of scars with two features in common: rainbow pattern and rosettes in a keloid (**Figure 1**), rainbow alone in an atrophic scar (**Figure 2**) and rosettes in another case of recent scar (**Figure 3**).

The Rainbow Pattern (RP) is related to the difference of perception of the polarized light by different component of the dermis with anarchical arrangement of spindle cells around the vessels. Therefore, it is not surprising to find it in scars with an important fibrous and vascular components in Keloids or in atrophic scars where the interaction of these components with polarized light are easily explored by the dermoscope due to the atrophic character of the scar.

This rainbow pattern may have therapeutic implications, especially in hypertrophic scars, because it means that the

scar contains an important vascular component which is a good target for the Pulsed dye laser.

The term of rosette characterized by 4 white points arranged as a 4-leaf clover mainly localized inside the follicular openings in Polarized contact dermoscopy. The rosette sign may be complete as described before, or incomplete when we have only three or two clods linked to each other. Histologically, it corresponds to changes of orthokeratosis and parakeratosis. It is occasionally seen in actinocarcinoma and squamous cell carcinoma and other neoplasms. In scars, we explain the rosettes sign by the abundant spindle cells and fibrosis around follicular openings, the presence of this sign informs the clinician that the follicular unit is involved, so superficial treatments like pressure therapy and topical corticosteroids are not an option. Instead, treatments that penetrate deeply into the dermis are mandatory.

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Figure 1. Rainbow pattern and rosettes in a keloid scar



Figure 2. Rainbow pattern in an atrophic scar

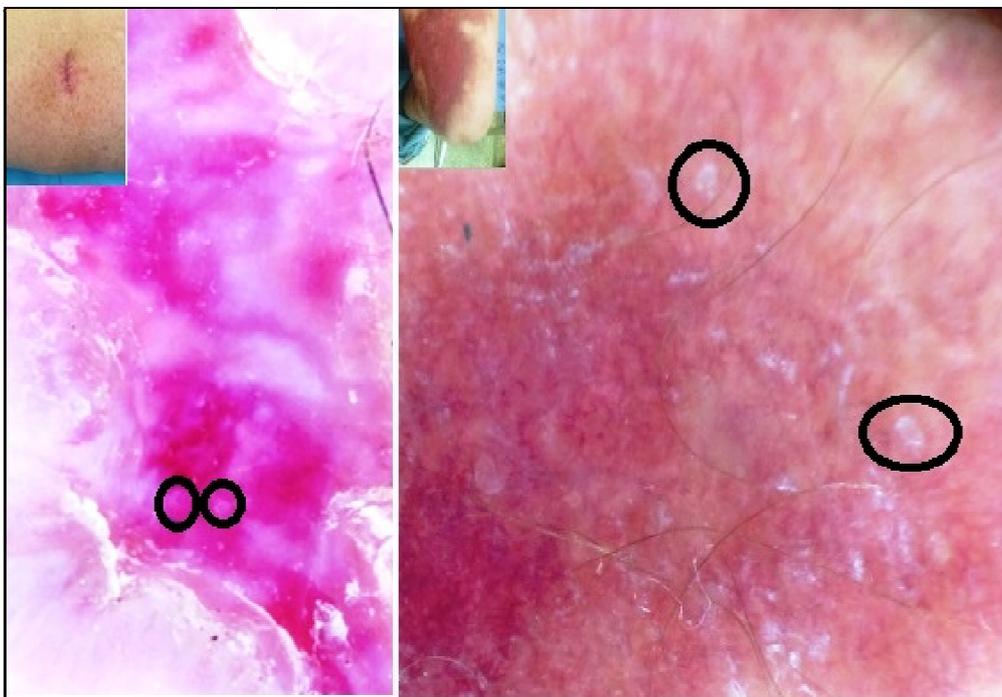


Figure 3. Rosettes in a recent scar (right) and a keloid scar (left)

Ultimately, the rainbow pattern and the rosettes sign are not exceptionally seen in scars, and their presence may modify our therapeutic options.

References

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