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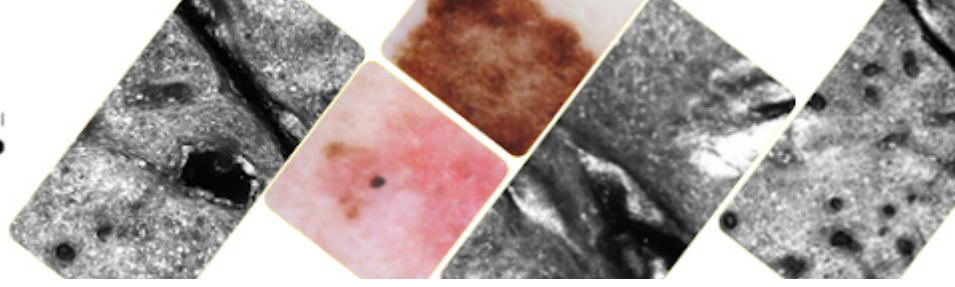

APPEARANCE OF DERMAL MELANOMA AT THE SITE OF EXCISION OF A LENTIGO MALIGNA 12 YEARS BEFORE: DIAGNOSTIC APPROACH BY REFLECTANCE CONFOCAL MICROSCOPY.

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Lentigo maligna (LM) is an **in-situ melanoma** that appears in areas with abundant chronic sun damage and that is confined to the epidermis. **Reflectance confocal microscopy** (RCM) is excellent for diagnosing these types of lesions because it identifies cellular and architectural atypia in the epidermis and in the dermo-epidermal junction (DEJ). More advanced lesions may show extensive areas of regression and also become invasive what makes difficult to delimit it correctly. On the other hand, **primary dermal melanoma** (PDM) is a subtype of cutaneous melanoma which is localized to the dermis and has no epidermal component.

CASE REPORT: we present a case of an **86-year-old woman** with a nodular lesion on his left cheek. The patient undergone surgery 12 years before at the same location of a **heterochromatic pigmented macula** **(figure 1. A-D)**. MCR showed an epidermis with dendritic and round cells and atypical junctional thickening. The lesion was completely excised and the final histological diagnosis was LM.

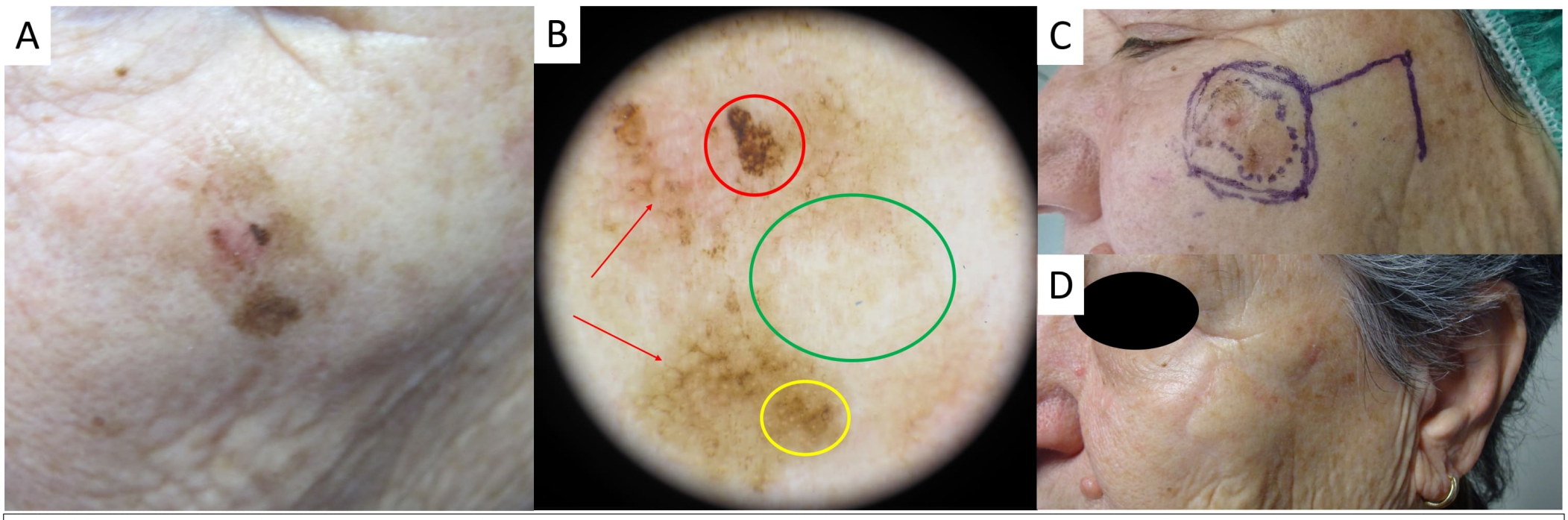

Figure 1. A-D. A: macroscopic image of an heterochromatic macula (red, brow, black, withe colors). B: dermoscopic image of the same lesion with: dark brown rhomboidal structures in much of the lesion (red arrows), asymmetrical pigmentation around the follicles (yellow circle), irregular focal pigmentation with areas that obliterate follicles (red circle) and regression areas (green circle). C: surgical approach with 0,5 centimetre margin. D: clinical evolution 2 years after the excision.

On the other side, the **nodular lesion** appeared within the previous scar **(figure 2. A).** In **figure 2B and C** we can see the MCR of this lesion.

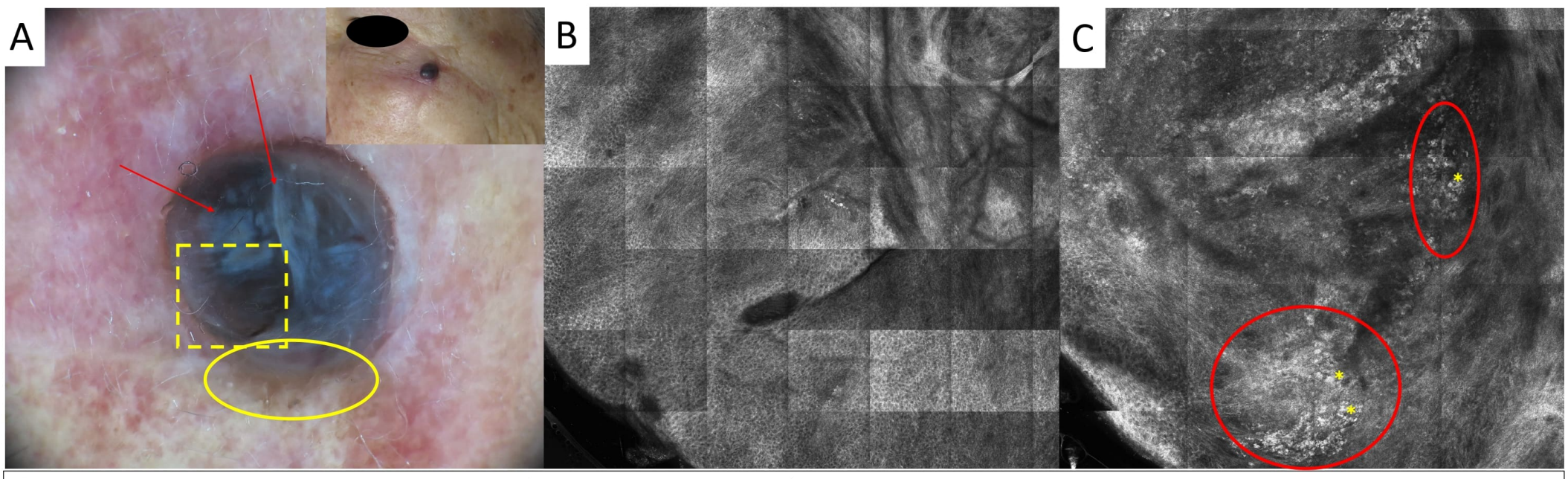

Figure 1. A-C. A: Dermoscopic image of the nodular lesion (clinical image at the top right). We can see a black-brownish well-defined nodule with white linear central structures (red arrows) and light brown pigment in the periphery (yellow circle). Zone of MCR focus (yellow square). B: MCR image showing an epidermis with a predominant honeycomb pattern without atypical cells. C: MCR imagen showing a DEJ with fibrosis and with abundant non homogeneous nests (red circle) filled with bright cells (yellow asterisks).

DISCUSSION: the initial macular lesion was consistent with a **LM**. Clinically, it was characterized by pigmented areas and regression areas without pigment. By MCR, in the epidermis we could see **atypical cells of dendritic morphology** and **cells of round morphology**. Both characteristics are typical of lesions with a long time of evolution (1). Despite the fact that the initial lesion was diagnosed as melanoma in situ and excised with free surgical margins, given the anatomical proximity to the previous removal scar, it cannot be excluded that the lesion was not completely excised initially due to the abundant regression seen in the heterochromatic macula. On the other hand, the nodular lesion was reported as a **dermal infiltration by melanoma**. The PDM is histologically indistinguishable from a cutaneous melanoma metastasis and its definition is equivocal and lacks consensus between pathologists and clinicians (2, 3).

MCR is useful in diagnosing LM and detecting the invasive component of the lentigo maligna melanoma variant (LMM). Specifically, 3 findings have been detected by confocal microscopy that are associated with **LMM**: **epidermal and junctional disarray, large size of melanocytes, and nests of melanocytes** (4).

However, we can identify pigment-free areas that are represented by dermoscopy as white lines and neoangiogenesis and by MCR as absence of atypical cells and extensive areas of fibrosis. These areas no longer show LM or LMM histological data and make it difficult to correctly delimit the lesion (1). The dermal infiltration of melanoma is difficult to see by MCR because the epidermis does not show cellular atypia and the nests are deeper.

CONCLUSION: with our case, we would like to address the fact that, not so unfrequently, some LM can already have areas of fibrosis and regression that do not allow the correct delimitation of the lesion and that could justify the appearance of a dermal melanoma months or years after the initial excision.

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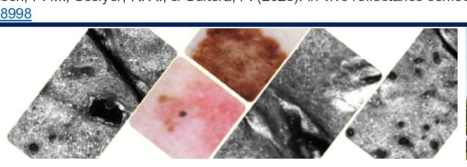

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