Associate Professor Amanda Oakley

Dermatologist

Hamilton

Professor H. Peter Soyer

Academic Dermatologist

The University of Queensland

Brisbane

Thursday, June 8, 2017

(Room 5)

8:30 - 10:30 WS #3: Dermoscopy Workshop Part 1

11:00 - 13:00 WS #10: Dermoscopy Workshop Part 2

14:00 - 16:00 WS #16: Dermoscopy Workshop Part 1 (Repeated)

16:30 - 18:30 WS #22: Dermoscopy Workshop Part 2 (Repeated)

Basics of Dermoscopy including Melanocytic Lesions

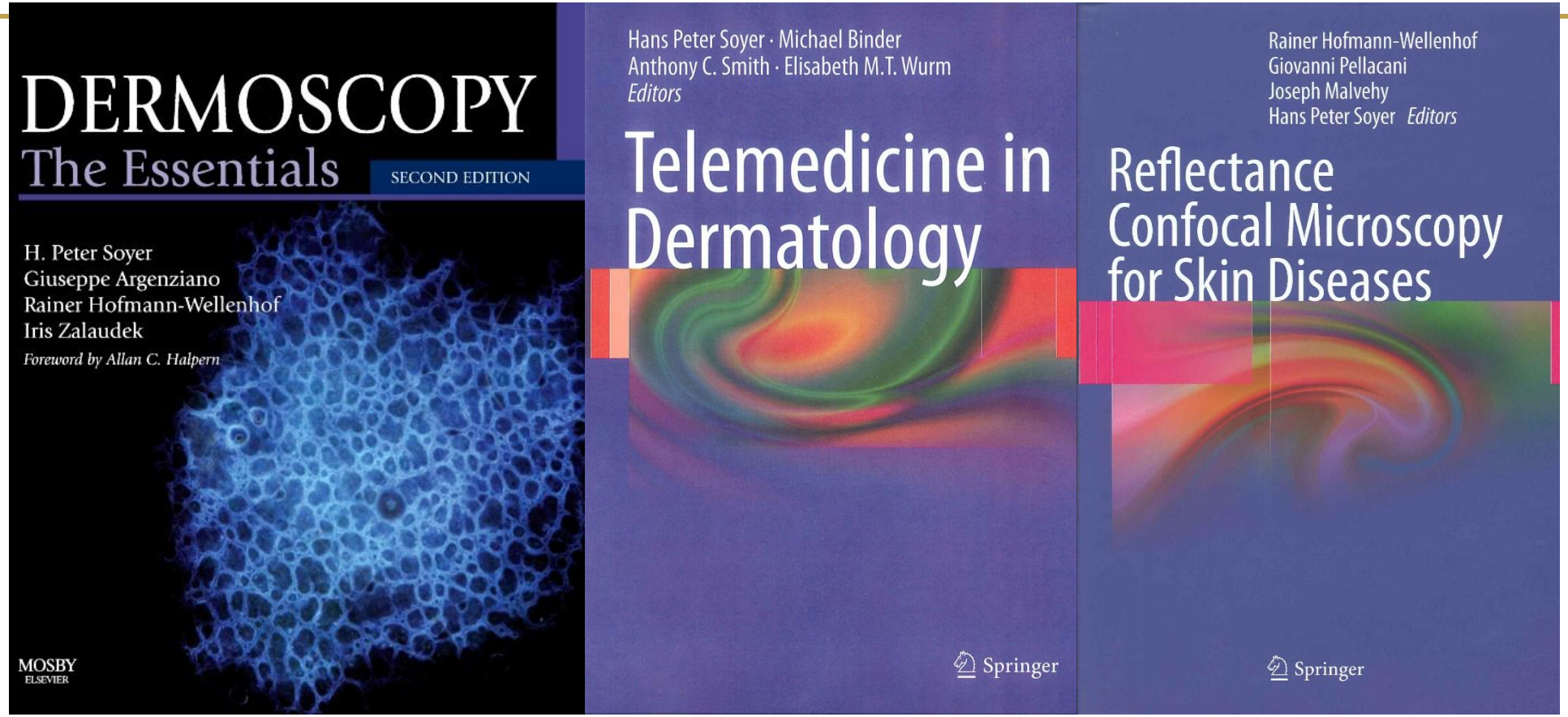
Dermatology Research Centre, The University of Queensland
School of Medicine, Translational Research Institute
&
Dermatology Department, Princess Alexandra Hospital Brisbane

p.soyer@uq.edu.au

@UQDRC

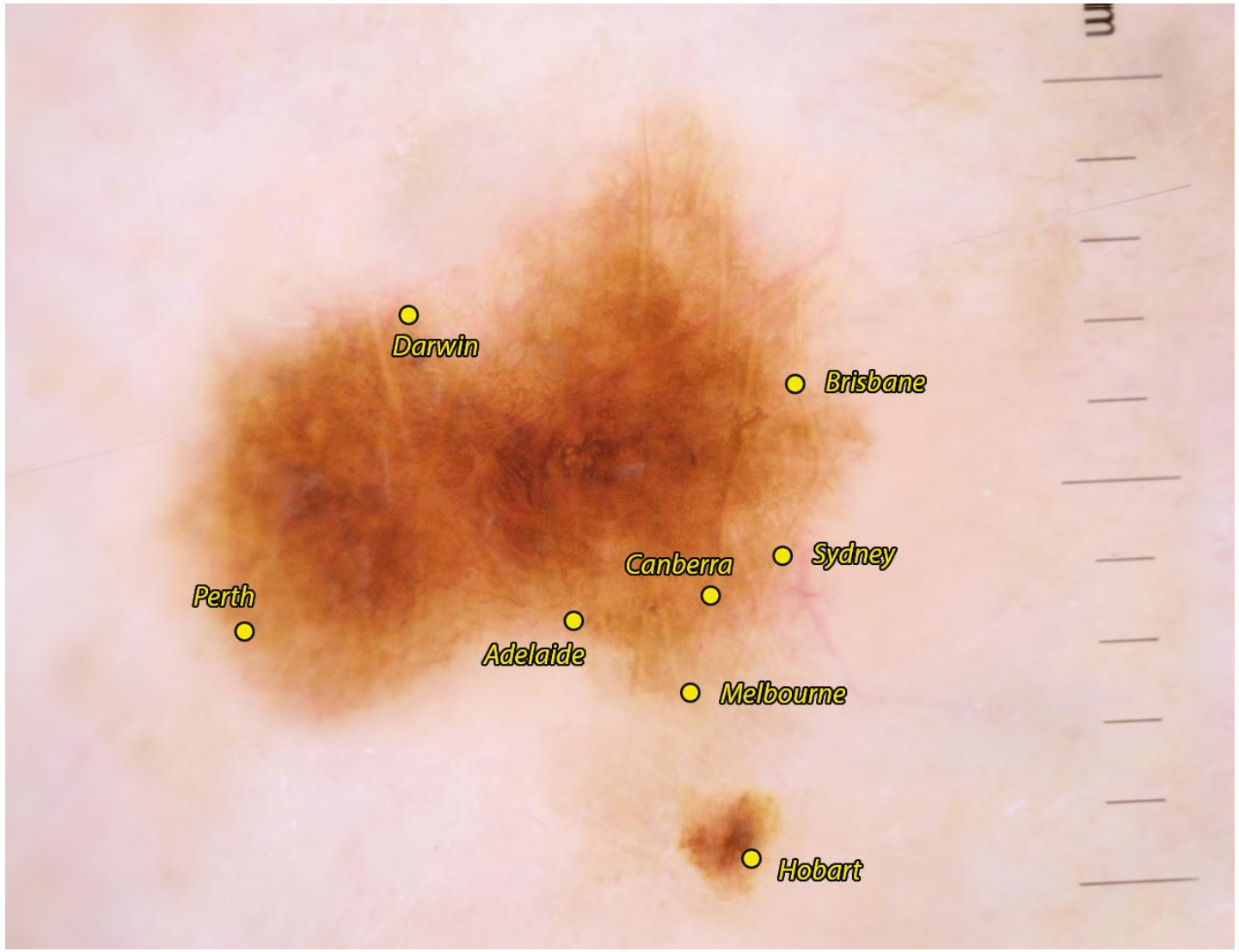
Conflicts of Interests

THE UNIVERSITY OF QUEENSLAND
AUSTRALIA



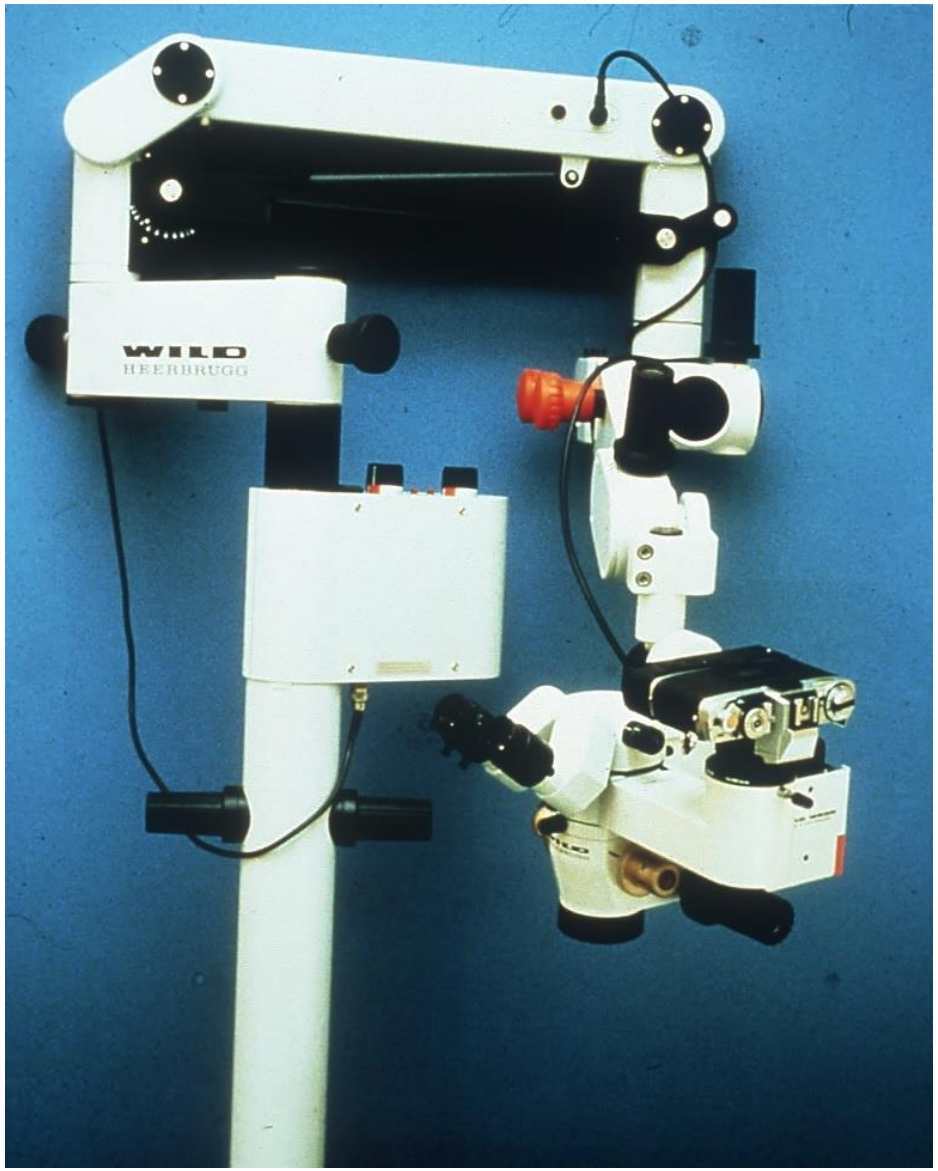
e-derm-consult

MoleMap by Dermatologists


Darwin
Brisbane
Canberra
Sydney
Perth
Adelaide
Melbourne
Hobart

Synonyms

- Dermoscopy
- Dermatoscopy
- Epiluminescence microscopy
- Skin surface microscopy
- Incident light microscopy
- Oil immersion microscopy
- In vivo cutaneous surface microscopy



Non-invasive in vivo imaging technique with 10X magnification & illumination

Skin covered with a transparent medium or a polarised filter to minimise skin surface reflectance

Soyer HP et al. Early diagnosis of malignant melanoma by surface microscopy. [Letter to the Editor] Lancet 1987; 2: 803

Non-Polarised dermoscopy

Heine Delta-20

Welch-Allyn Episcope™

Polarised dermoscopy

DermoGenius

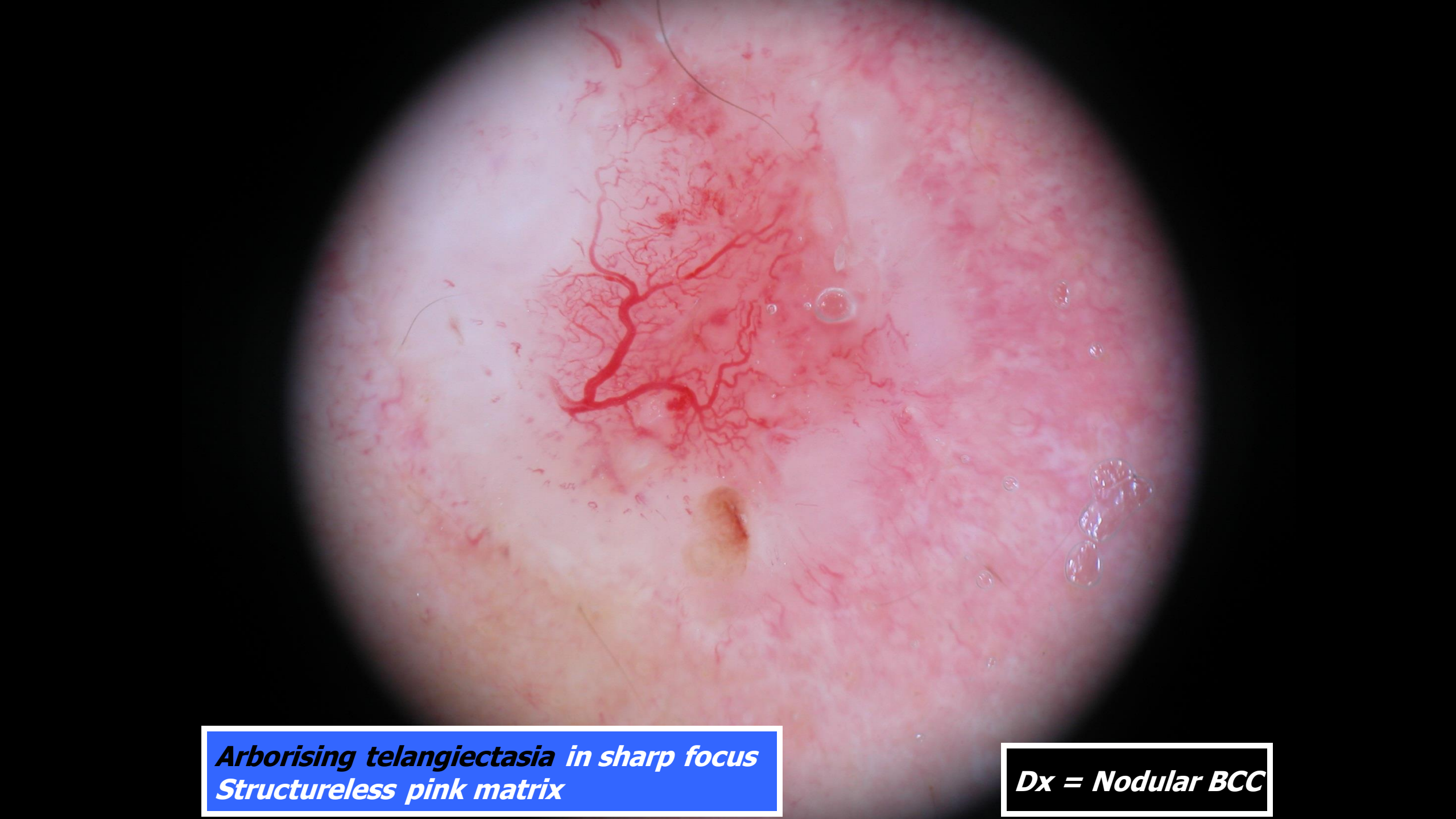
Polarised light dermoscopy

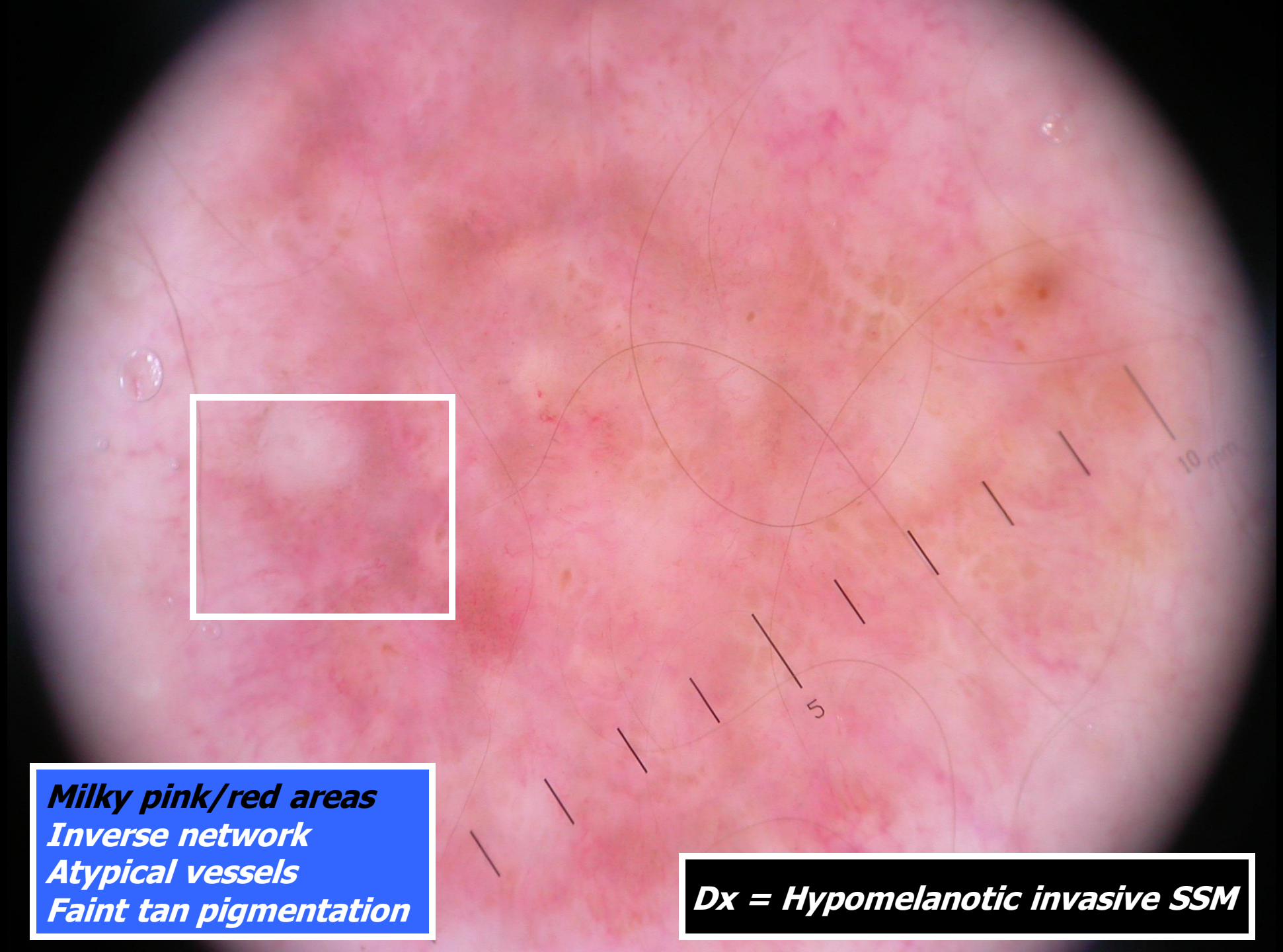
Advantages

- No immersion fluid necessary
- Non-contact (most DermLites)
- Quicker

- Vascular structures
- Milky-red areas

...seen more easily


Arborising telangiectasia in sharp focus
Structureless pink matrix
Dx = Nodular BCC



Milky pink/red areas
Inverse network
Atypical vessels
Faint tan pigmentation

Dx = Hypomelanotic invasive SSM

Polarised light dermoscopy

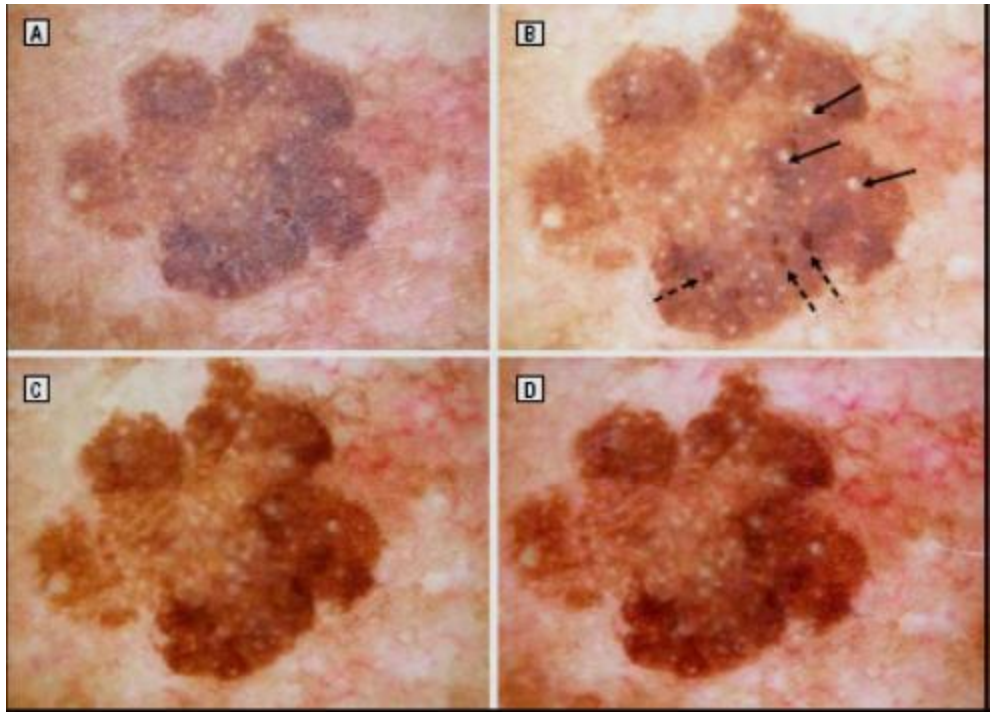
Disadvantages

Blue-grey veil
Regression structures
Milia-like cysts

...seen less easily

Seborrhoeic keratosis

Macro



NPCD

Milial cysts
Comedo-like openings

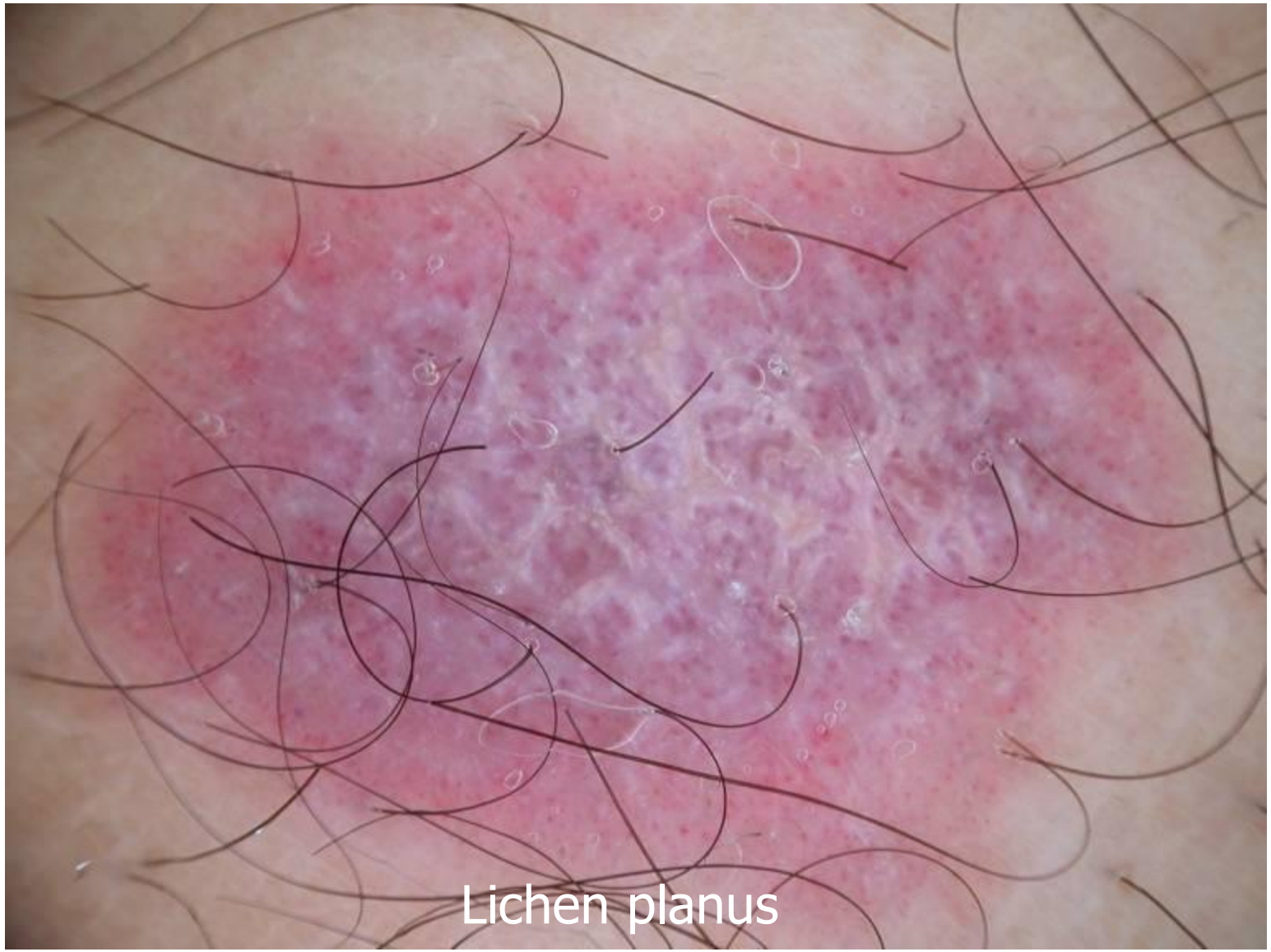
PCD

PNCD

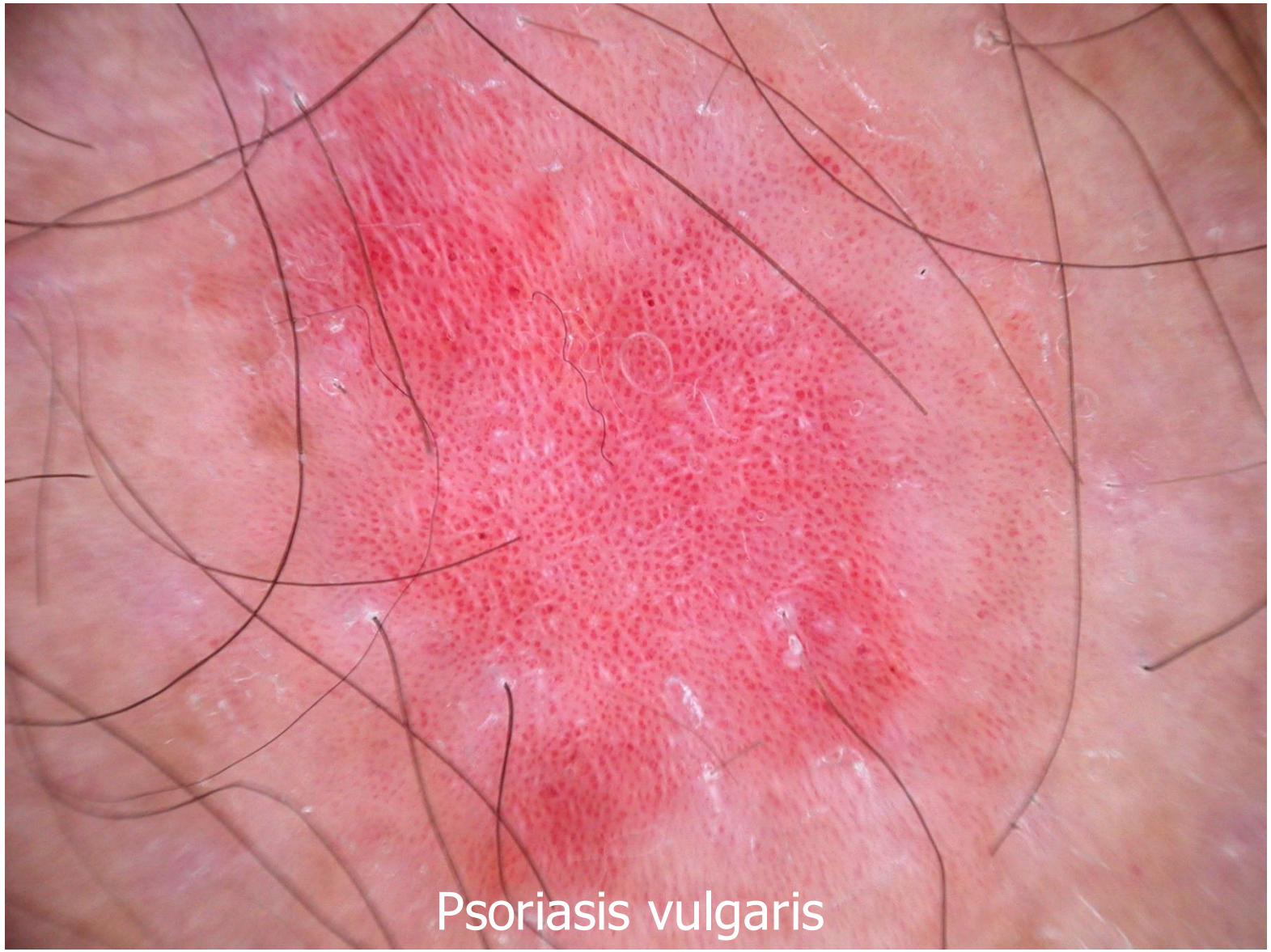
Benvenuto-Andrade C et al Arch Dermatol 2007;143:329-38.

Indications for Dermoscopy

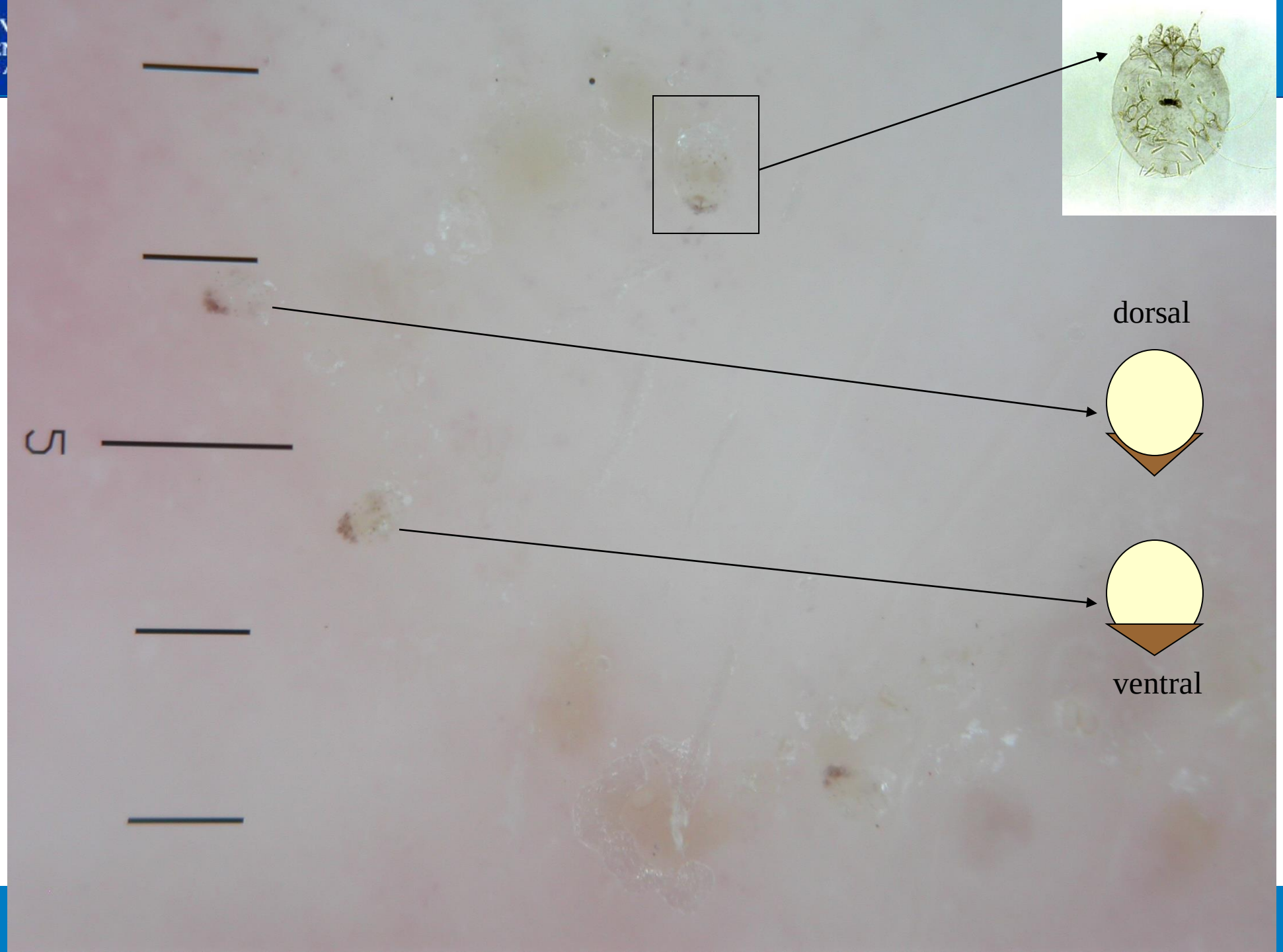
- Inflammatory dermoscopy – scabies & psoriasis/lichen planus
- Trichoscopy – classification of hair diseases
- Classic dermoscopy – pigmented and non-pigmented skin lesions

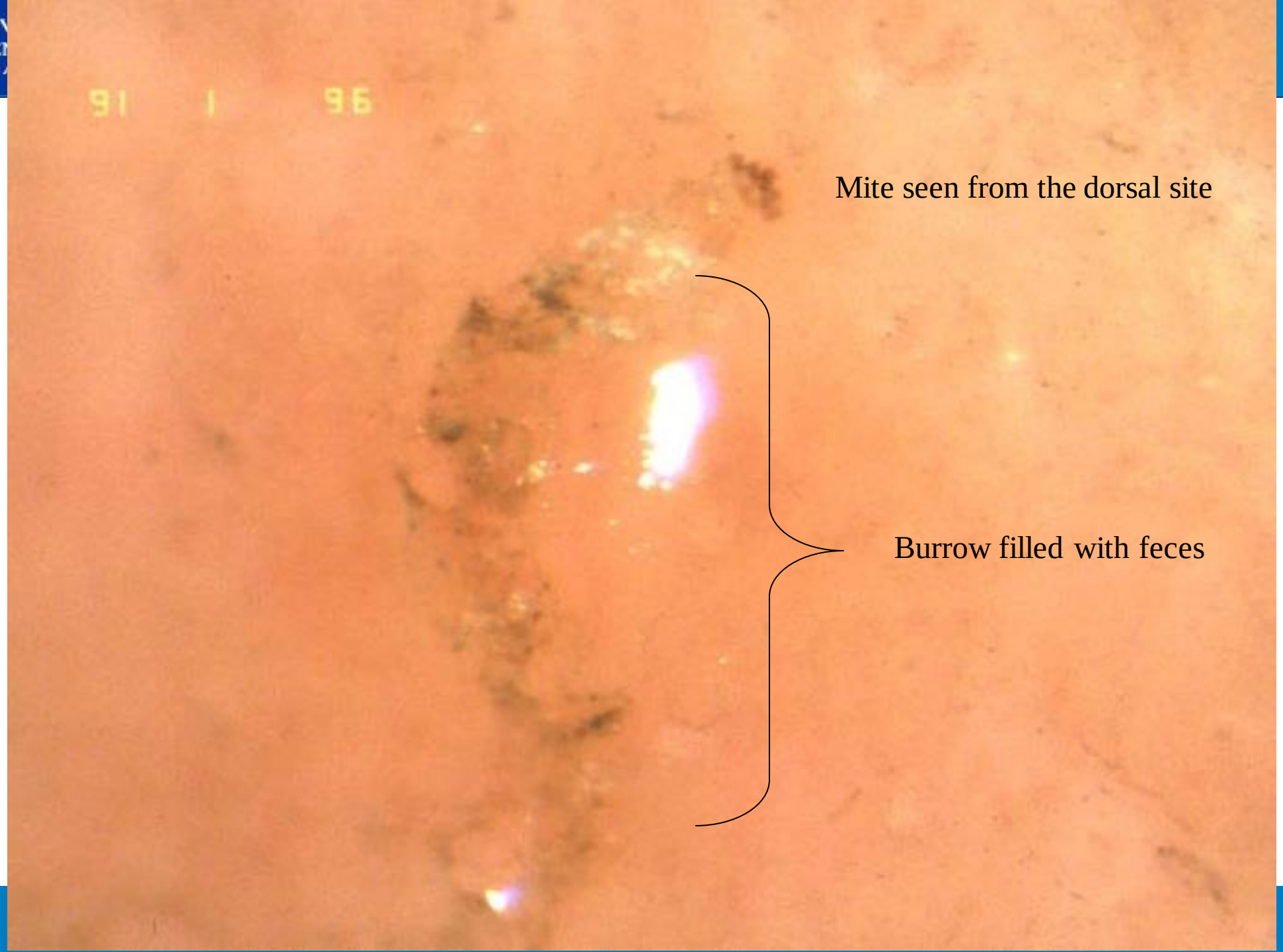


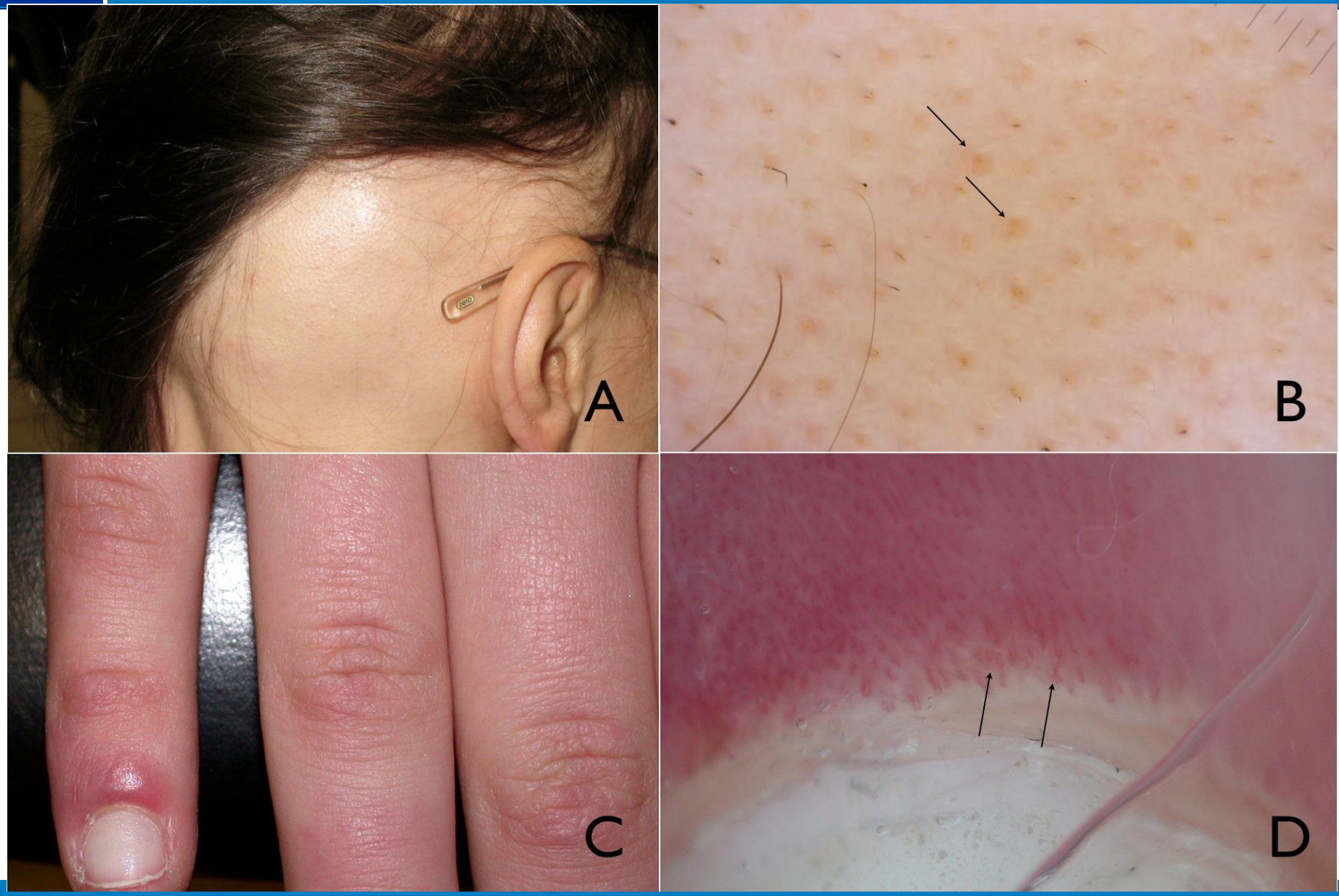
Lichen planus



Psoriasis vulgaris


dorsal
ventral

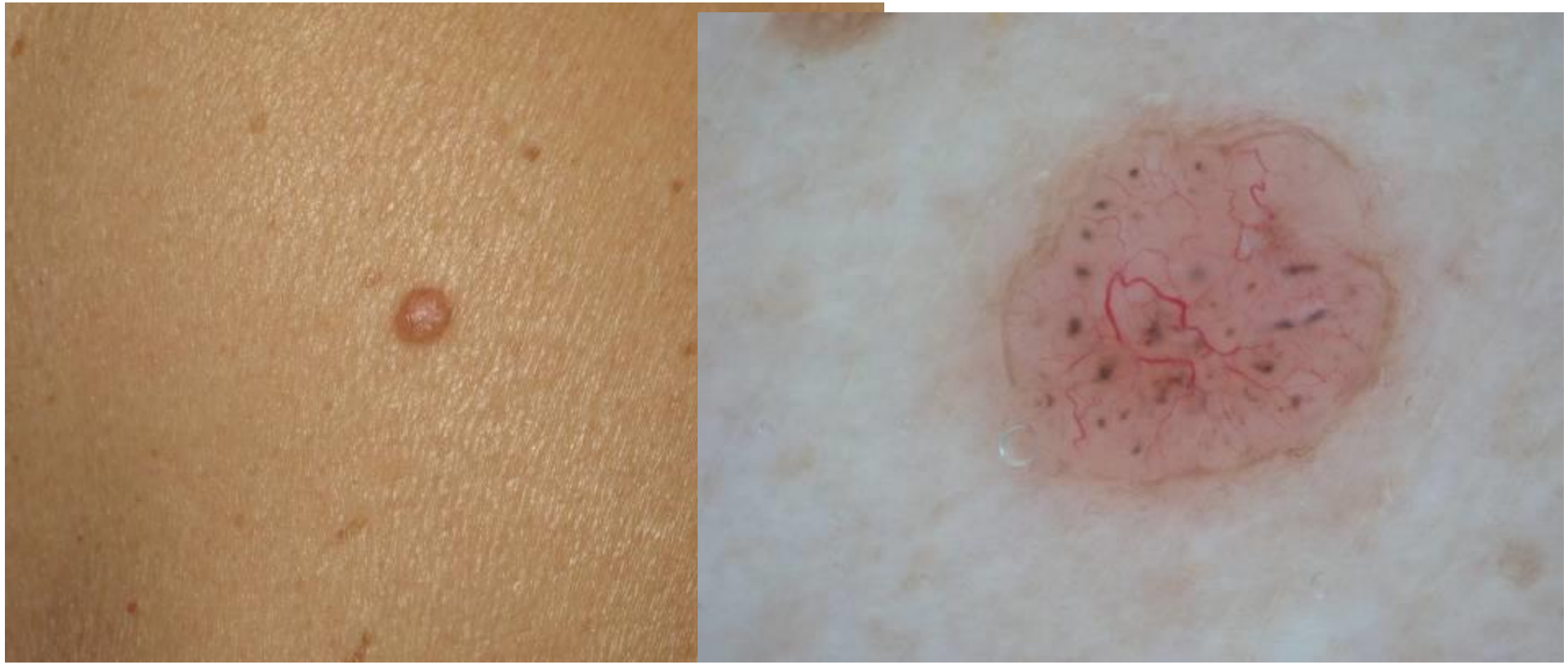

91 1 96
Mite seen from the dorsal site
Burrow filled with feces


A
B
C
D

Why Dermoscopy?

- Dermoscopy opens up a new dimension of clinical morphology

New Dimension of Clinical Morphology



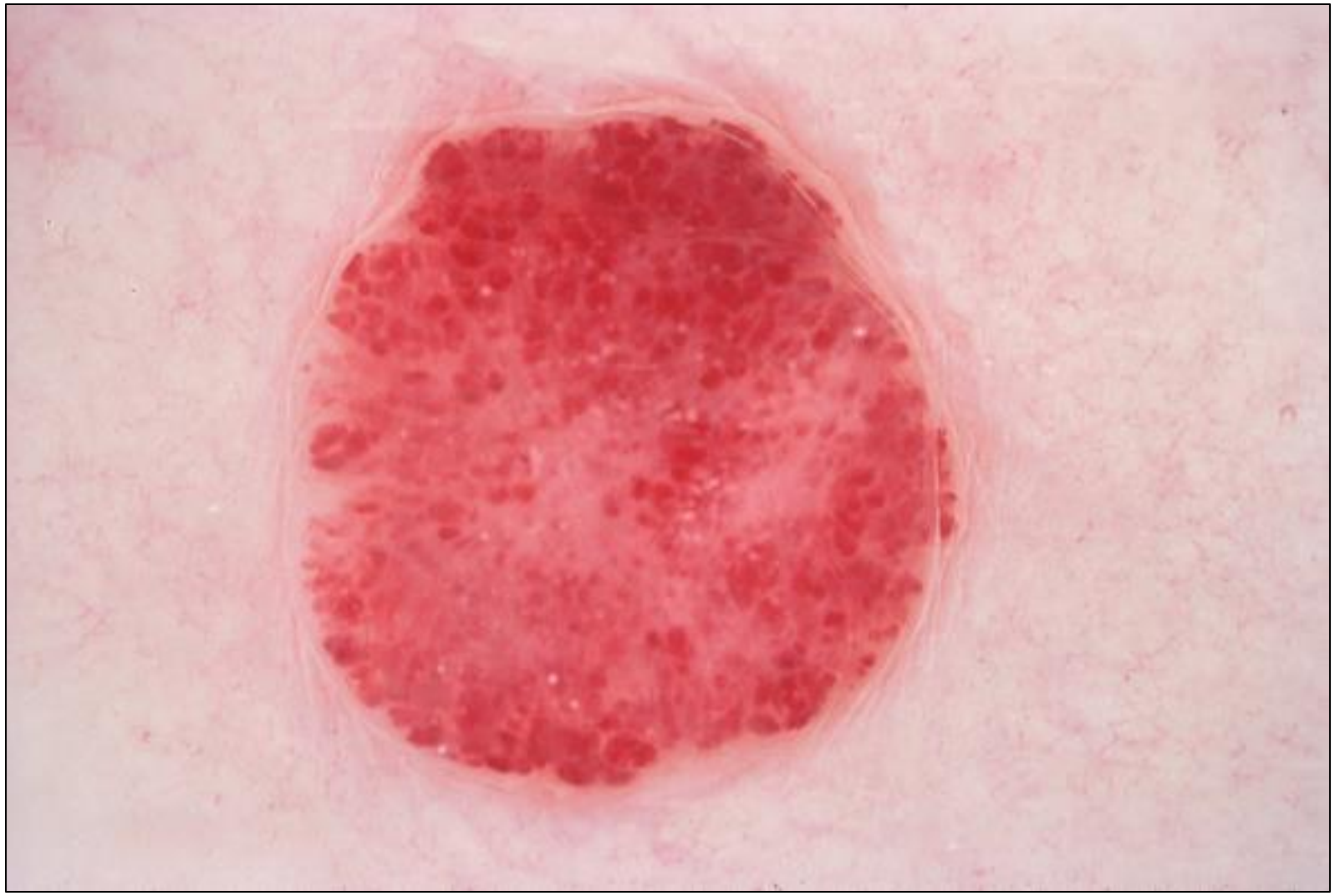
How do we perform morphologic diagnoses?

Heuristic Approach

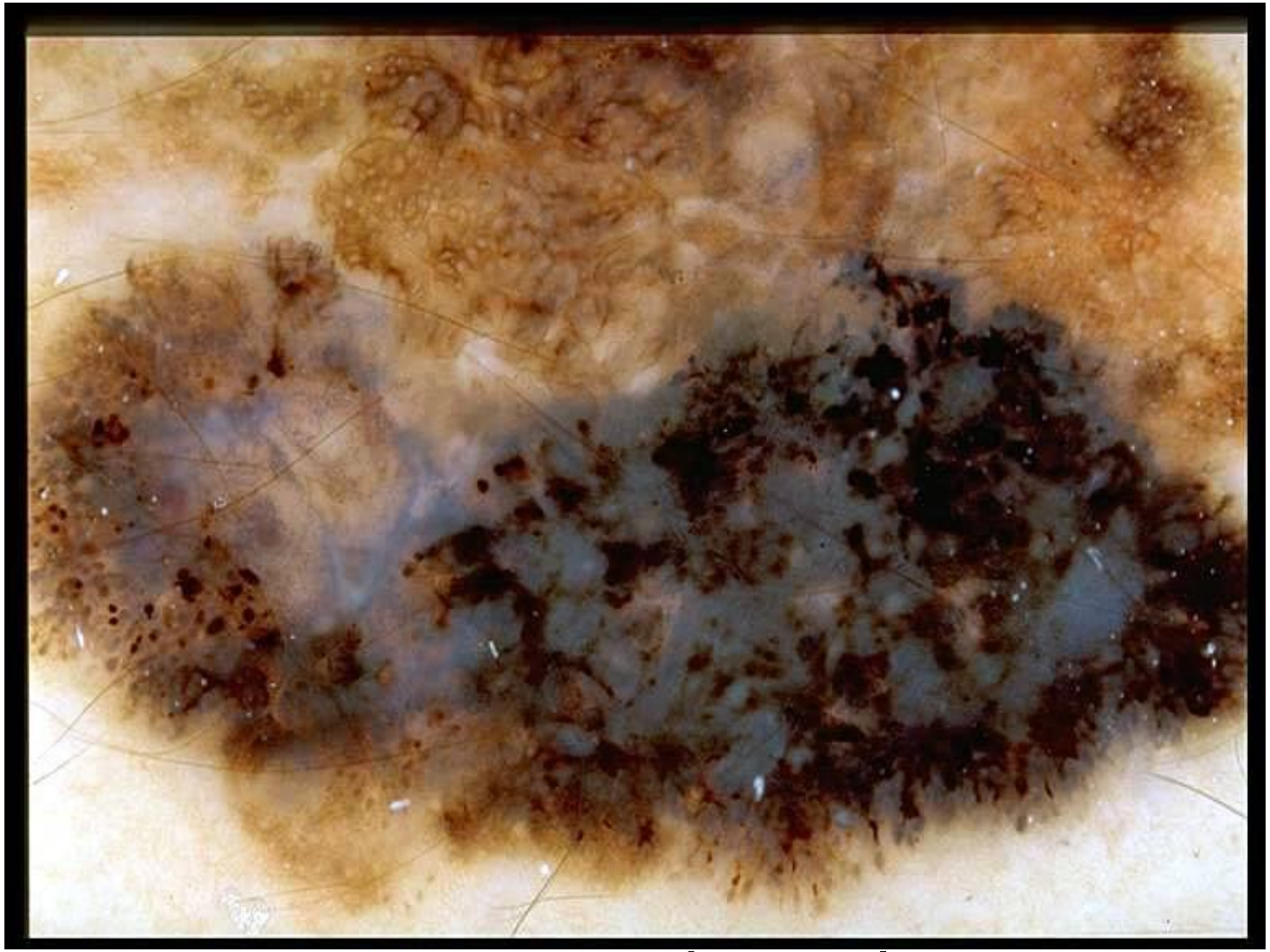
- Diagnoses based on experience and intuition

General Approach

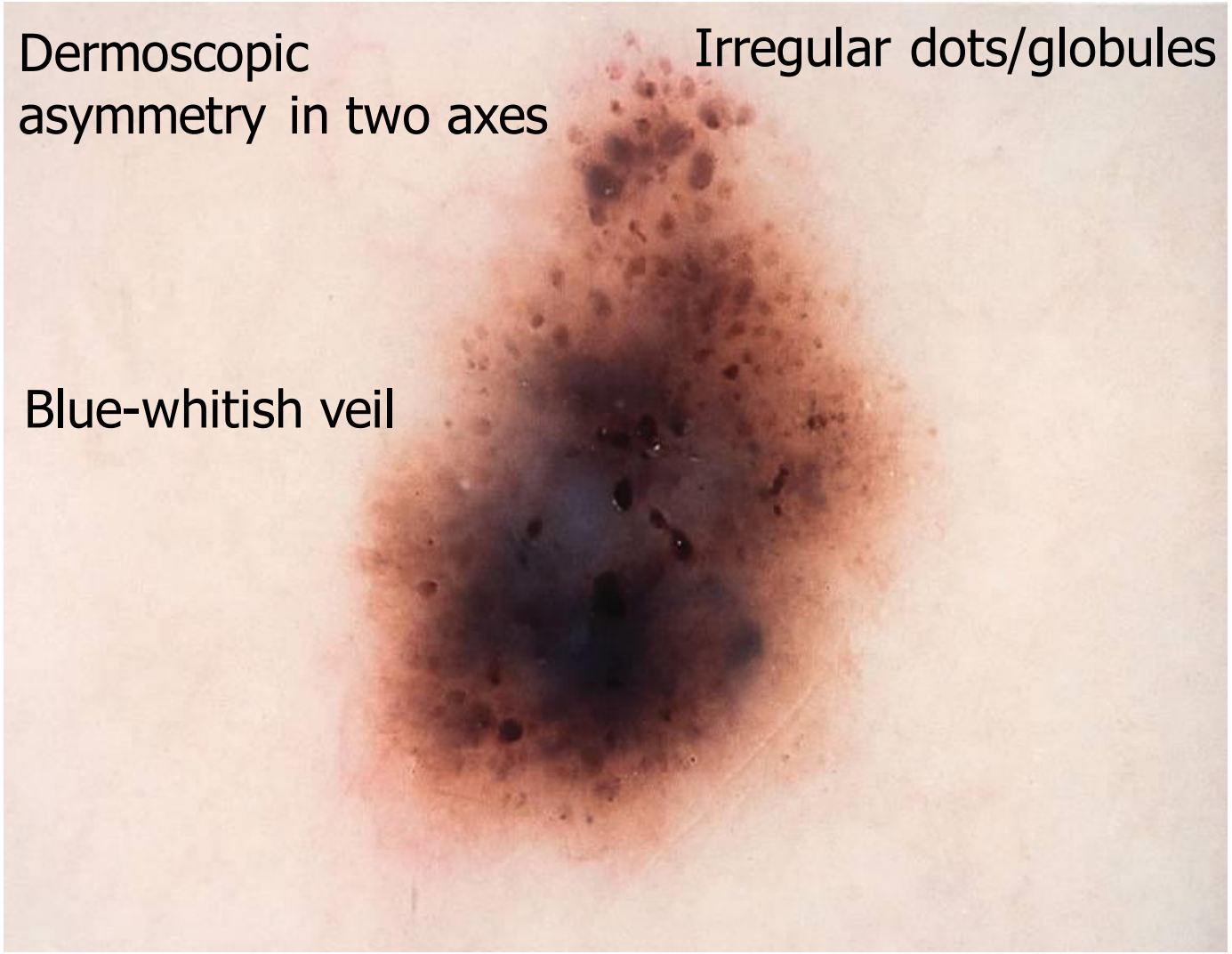
- Diagnoses based on morphologic criteria



Heuristic approach - Angioma



Heuristic approach - Melanoma



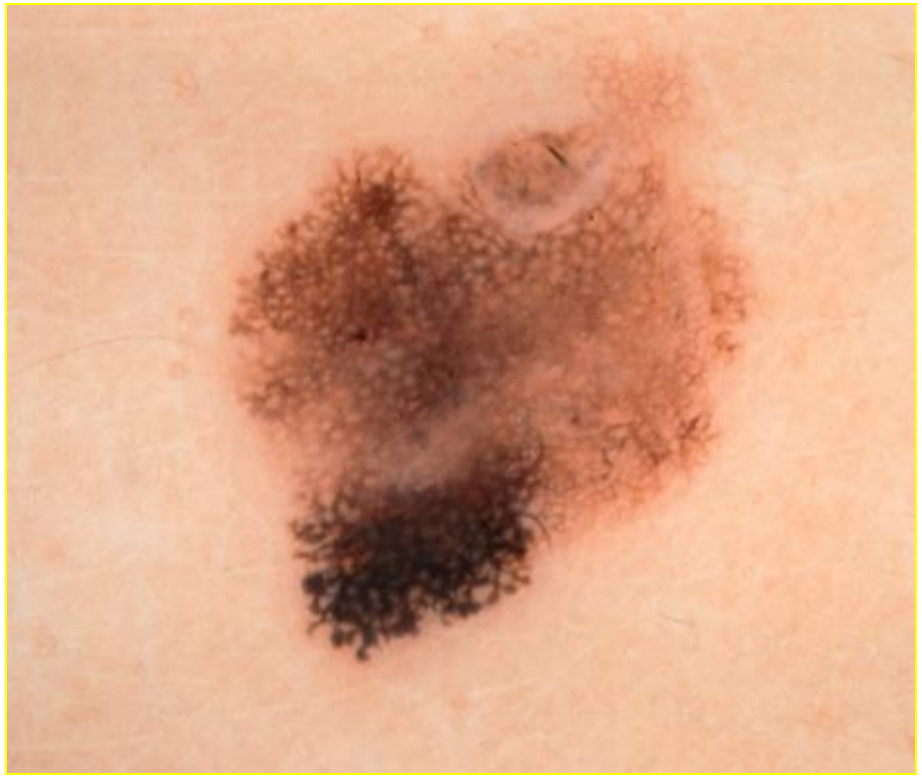
General approach -- Melanoma

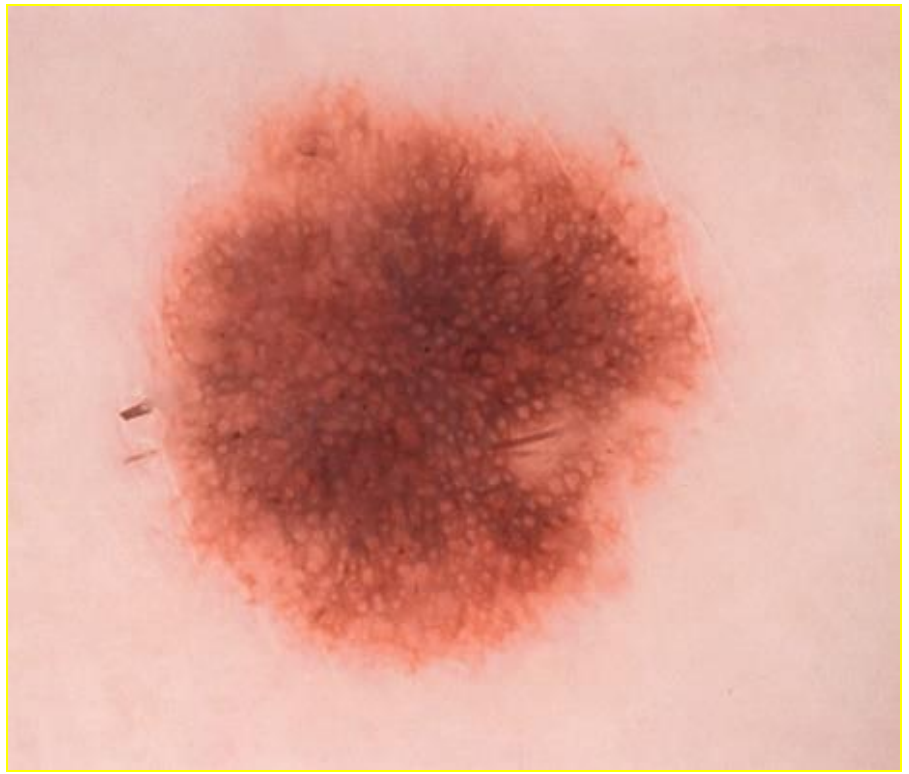
First Prospective Study of the Recognition Process of Melanoma in Dermatological Practice

Julie Gachon et colleagues

Arch Dermatol 141: 434 – 438, 2005

- Assessment of the overall pattern – cognitive process
- 'Ugly duckling sign' – comparative process
- Knowledge of recent change – interactive process



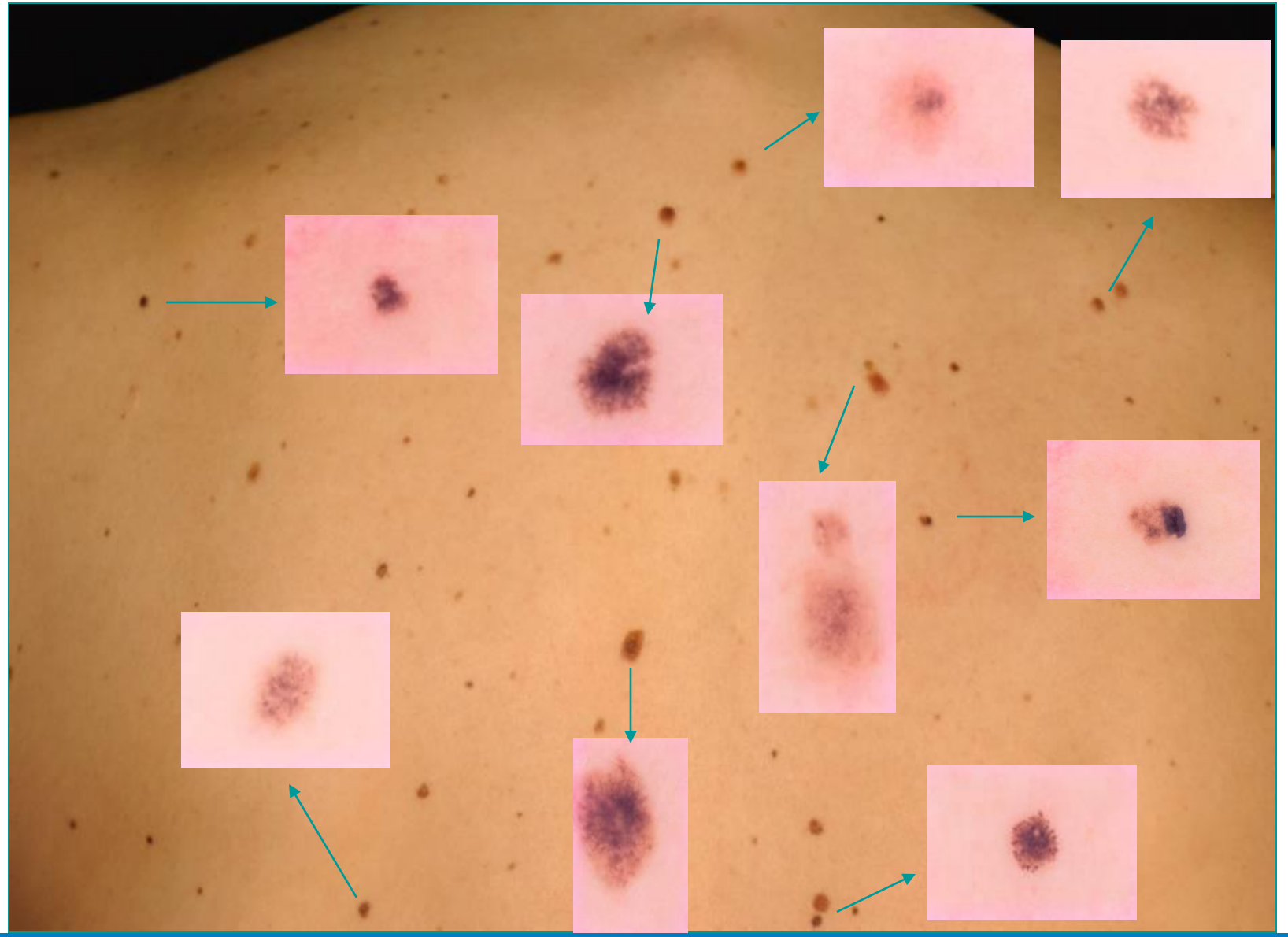


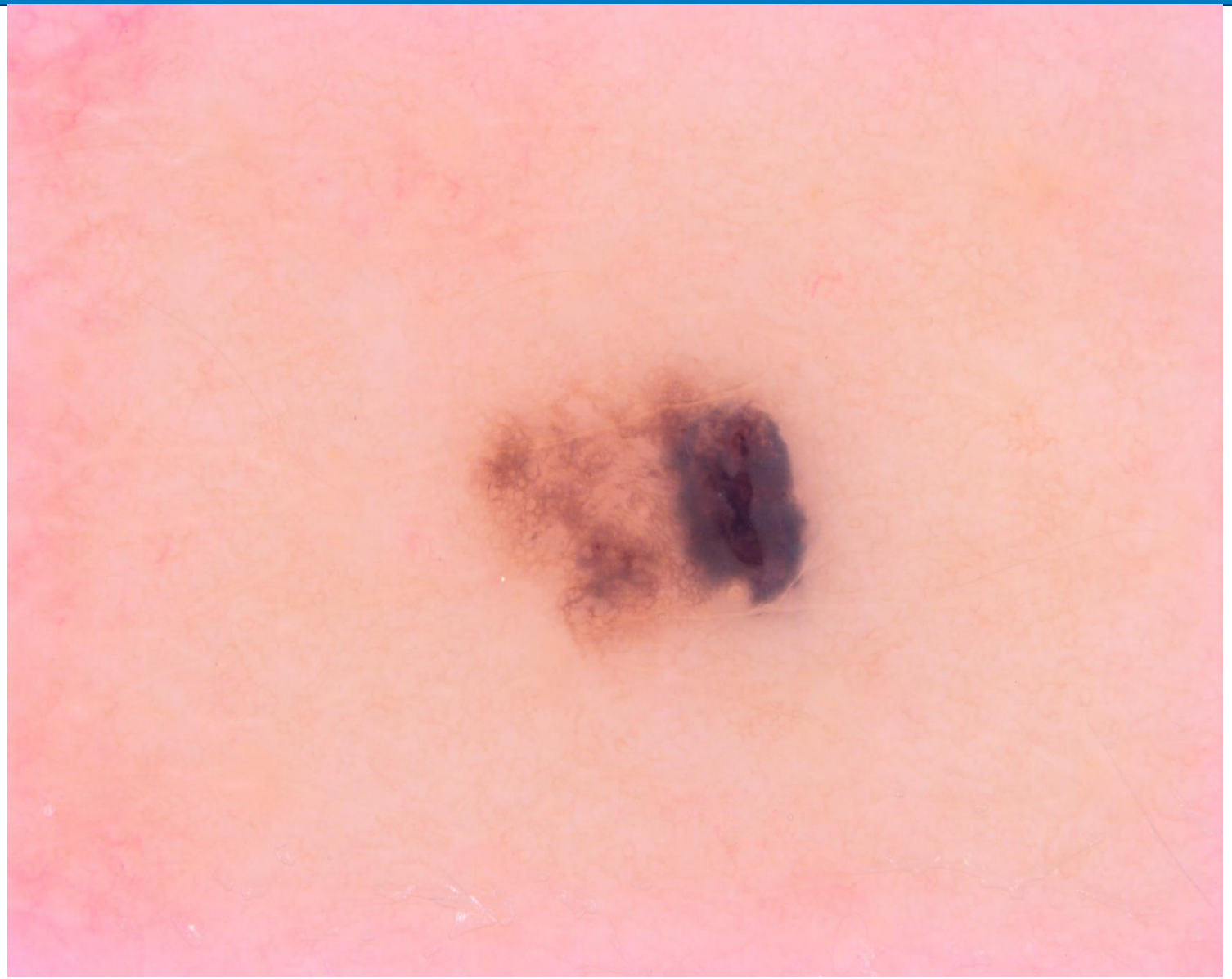
First Prospective Study of the Recognition Process of Melanoma in Dermatological Practice

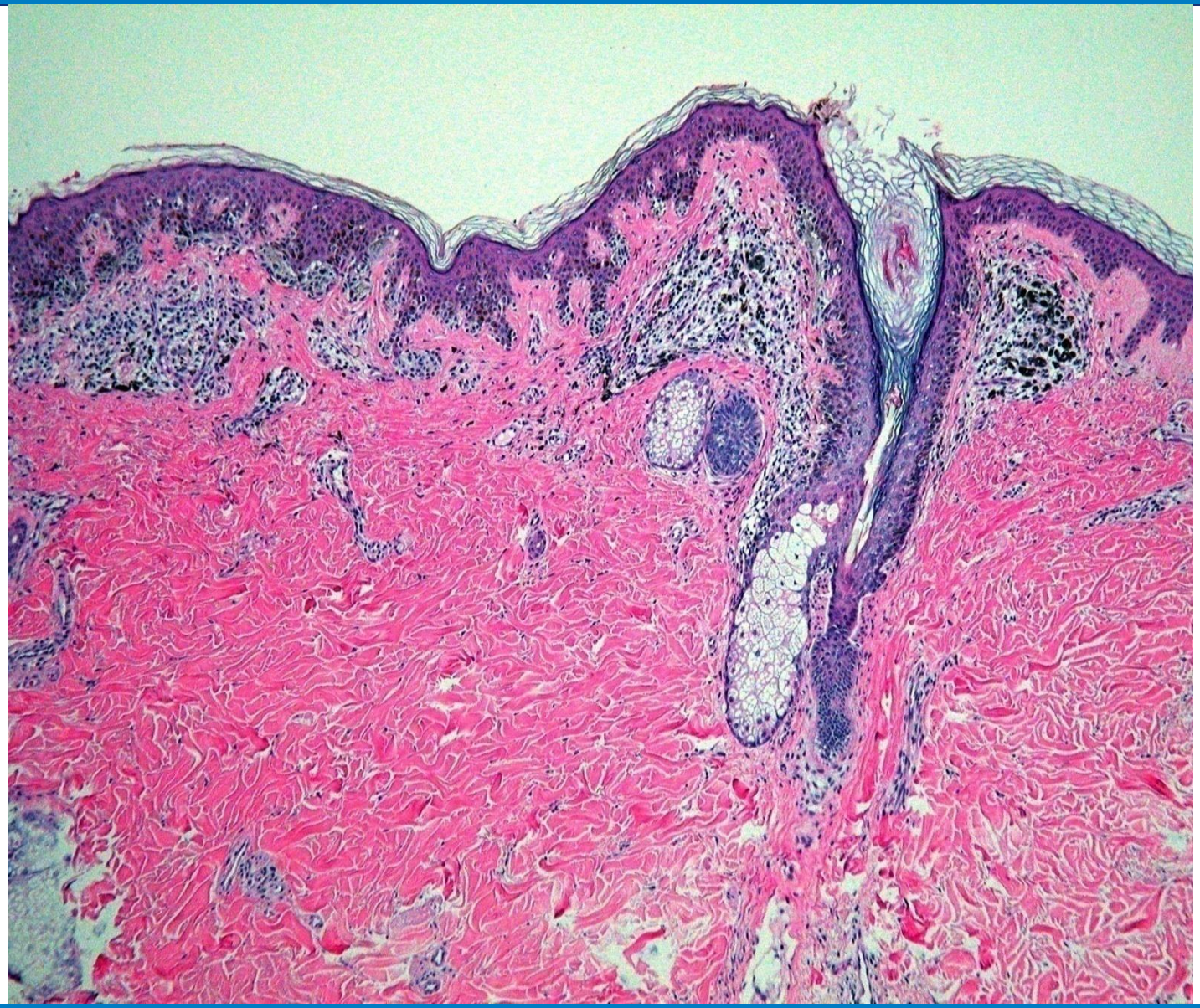
Julie Gachon et colleagues

Arch Dermatol 141: 434 – 438, 2005

- Assessment of the overall pattern – cognitive process
- 'Ugly duckling sign' – comparative process
- Knowledge of recent change – interactive process







The "Ugly Duckling" Sign

Agreement Between Observers

Alon Scope, MD; Stephen W. Dusza, MPH; Allan C. Halpern, MD, MS; Harold Rabinovitz, MD; Ralph P. Braun, MD; Iris Zalaudek, MD; Giuseppe Argenziano, MD; Ashfaq A. Marghoob, MD

Objectives: To assess whether multiple observers can identify the same pigmented lesion(s) as being different from a patient's other moles ("ugly duckling" [UD] sign) and to explore whether the UD sign is sensitive for melanoma detection.

Design: Baseline back images of 12 patients were obtained from a database of standardized patient images. All patients had at least 8 atypical moles on the back, and in 5 patients, one of the lesions was a histologically confirmed melanoma. The overview back images were supplemented with close-up clinical images of lesions. Participants were asked to evaluate whether the images showed any lesions on the back that differed from other nevi.

Setting: Dermatology clinic specializing in pigmented lesions.

Participants: Images were evaluated by 34 participants, including 8 pigmented lesion experts, 13 general dermatologists, 5 dermatology nurses, and 8 nonclinical medical staff.

Main Outcome Measures: A lesion was considered a generally apparent UD if it was perceived as different by at least two-thirds of the participants. Sensitivity was defined as the fraction of melanomas identified as different.

Results: All 5 melanomas (100%) and only 3 of 140 benign lesions (2.1%) were generally apparent as different. The sensitivity of the UD sign for melanoma detection was 0.9 for the whole group, 1.0 for experts, 0.89 for general dermatologists, 0.88 for nurses, and 0.85 for nonclinicians. A limitation of the study is that assessment was done in virtual settings.

Conclusions: In the present study, melanomas were generally apparent as UDs. The potential of the UD sign for melanoma screening should be further assessed.

Arch Dermatol. 2008;144(1):58-64

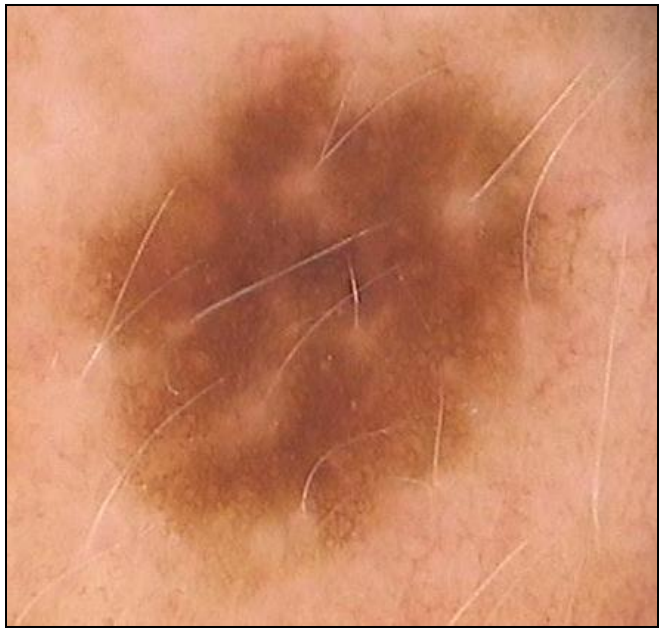
First Prospective Study of the Recognition Process of Melanoma in Dermatological Practice

Julie Gachon et colleagues

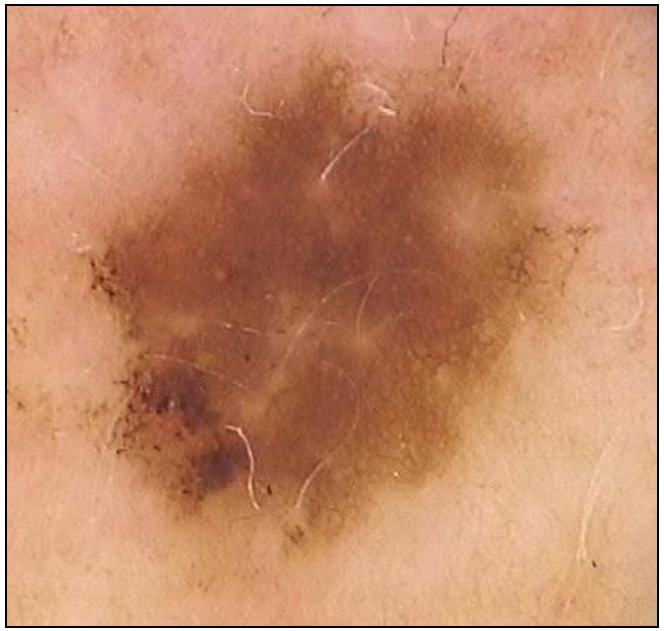
Arch Dermatol 141: 434 – 438, 2005

- Assessment of the overall pattern – cognitive process
- 'Ugly duckling sign' – comparative process
- Knowledge of recent change – interactive process

Patient: Male, 55 years old
Lesion: Central upper back



June 2011



November 2011

Algorithms

1987	Pattern Analysis (Pehamberger)
1994	ABCD Method (Stolz)
1996	Menzies Method
1998	7 point checklist (Argenziano)
2004	3 point checklist (Soyer)
2007	C.A.S.H algorithm (Kopf)
2007	Modified Pattern Analysis (Kittler)

Pattern Analysis

Melanocytic lesions are defined by colours and structures

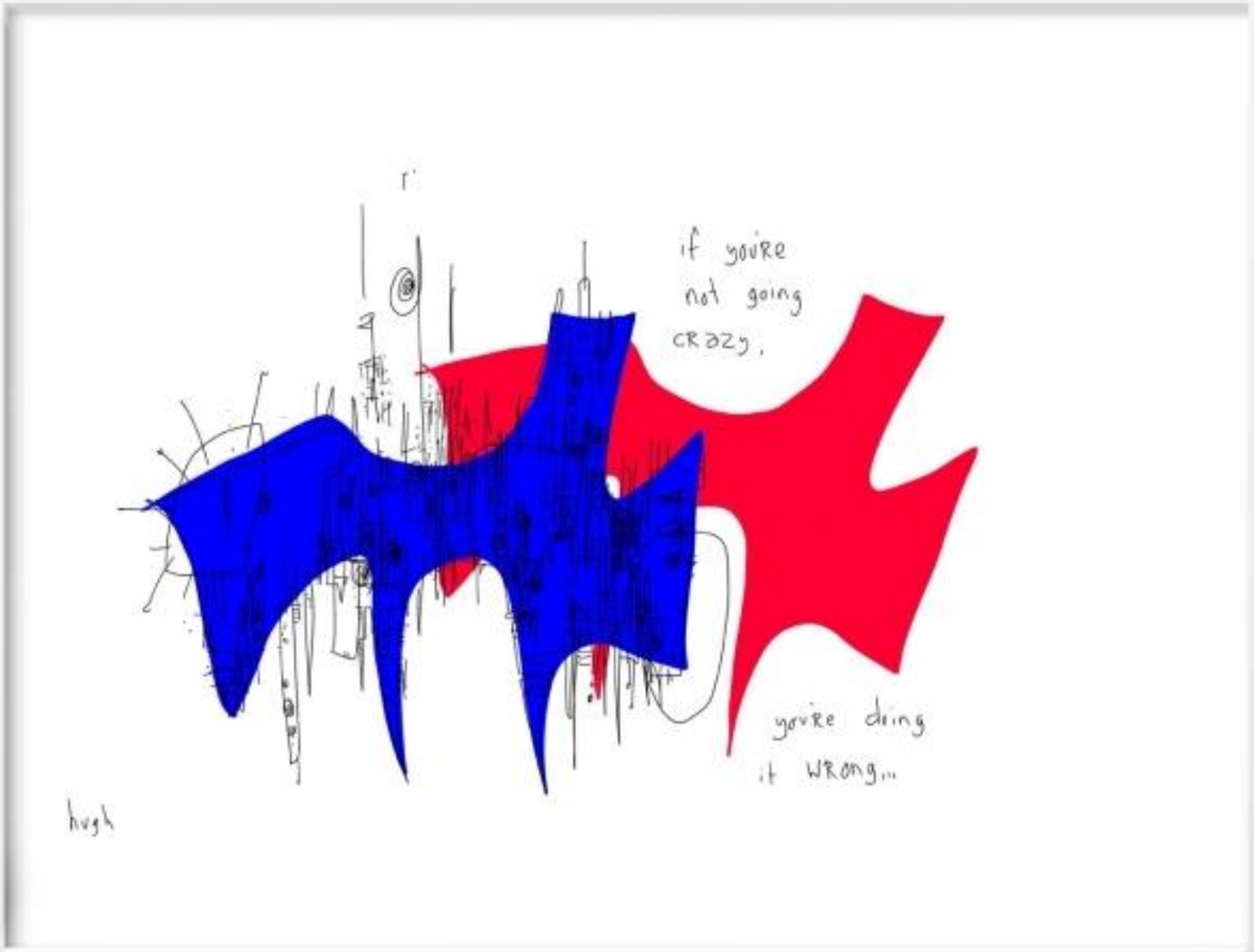
Symmetrical distribution – benign

Benign global patterns

Reticular, globular, cobblestone, starburst, homogenous, or parallel

Melanoma local features

Dots, globules, blotches, radial streaming/pseudopods, regression structures, blue-grey veil, (polymorphic vessels)

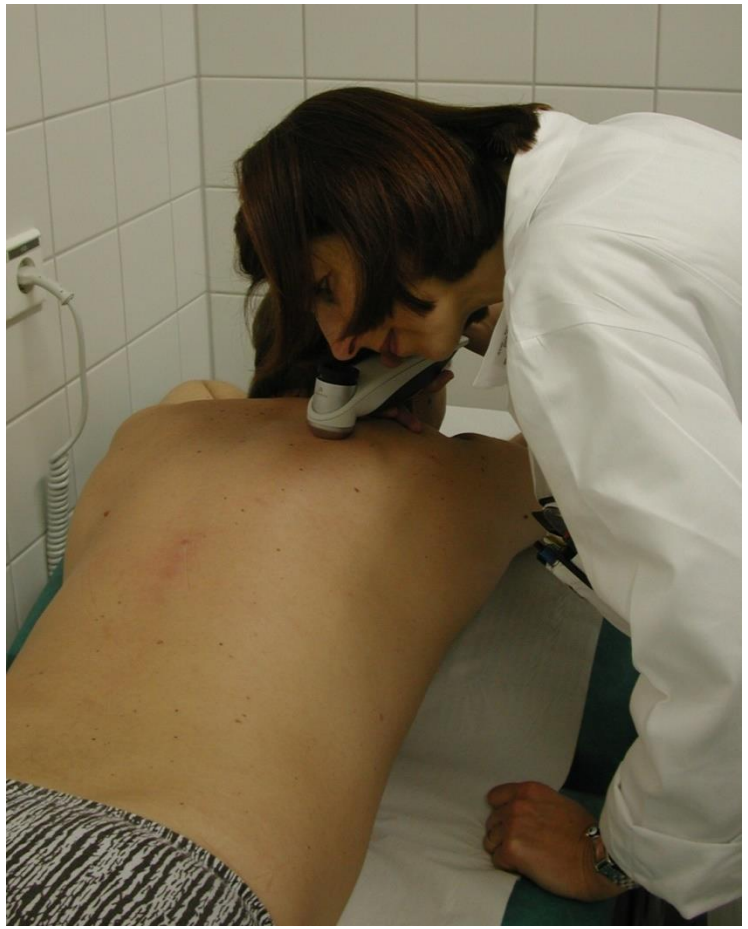

if you're
not going
crazy,
you're doing
it WRONG...
hugh

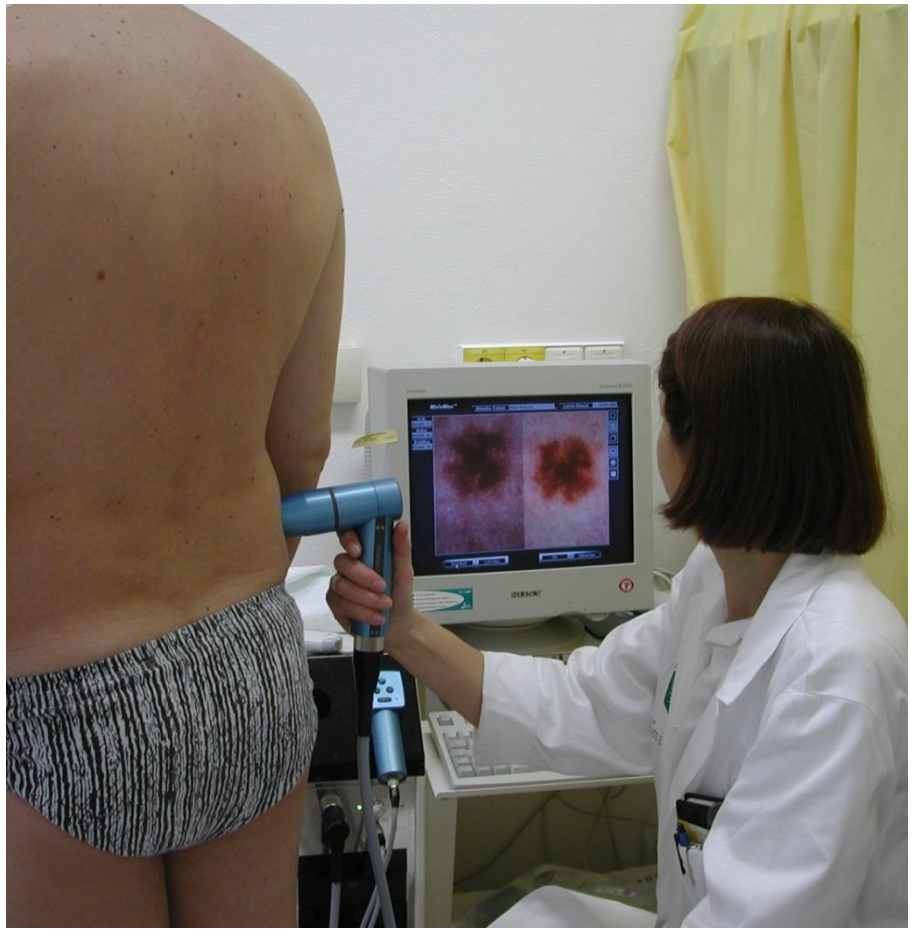
Colours

Black	Stratum corneum
Dark brown	Superficial epidermis
Light brown	Deep epidermis
Grey-blue	Papillary dermis
Steel blue	Reticular dermis
Red	Vasculature
White	Depigmentation or scar
Yellow	Hyperkeratosis or sebaceous glands

Why Dermoscopy?

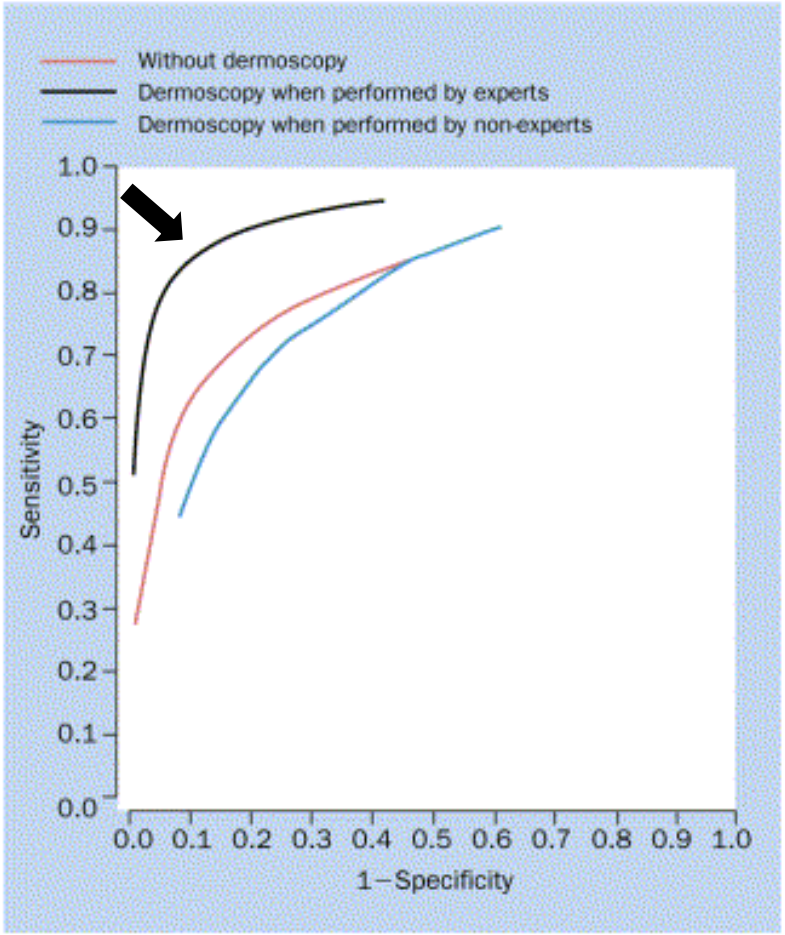
- Dermoscopy opens up a new dimension of clinical morphology
- Dermoscopy "forces" physicians to dedicate more time and care for individuals with pigmented skin lesions





Why Dermoscopy?

- Dermoscopy opens up a new dimension of clinical morphology
- Dermoscopy "forces" physicians to dedicate more time and care for individuals with pigmented skin lesions
- Dermoscopy is more accurate than clinical examination based on four meta-analyses



The diagnostic accuracy for melanoma was significantly higher with dermoscopy than without this technique (log odds ratio 4.0 [95% CI 3.0 to 5.1] versus 2.7 [1.9 to 3.4]; an improvement of 49%, p = 0.001).

Figure 2. SROC curves for the performance of the clinical diagnosis without dermoscopy (red line), dermoscopy by experts (black line), and dermoscopy by non-experts (blue line).

Kittler H et al. Diagnostic accuracy of dermoscopy. Lancet Oncology 2002; 3: 159

It is proven that

In the hands of experienced clinicians dermoscopy helps reducing the number of unnecessary biopsies
(increased specificity)

In the hands of non experienced clinicians dermoscopy helps detecting lesions suggestive of skin cancer
(increased referral sensitivity)

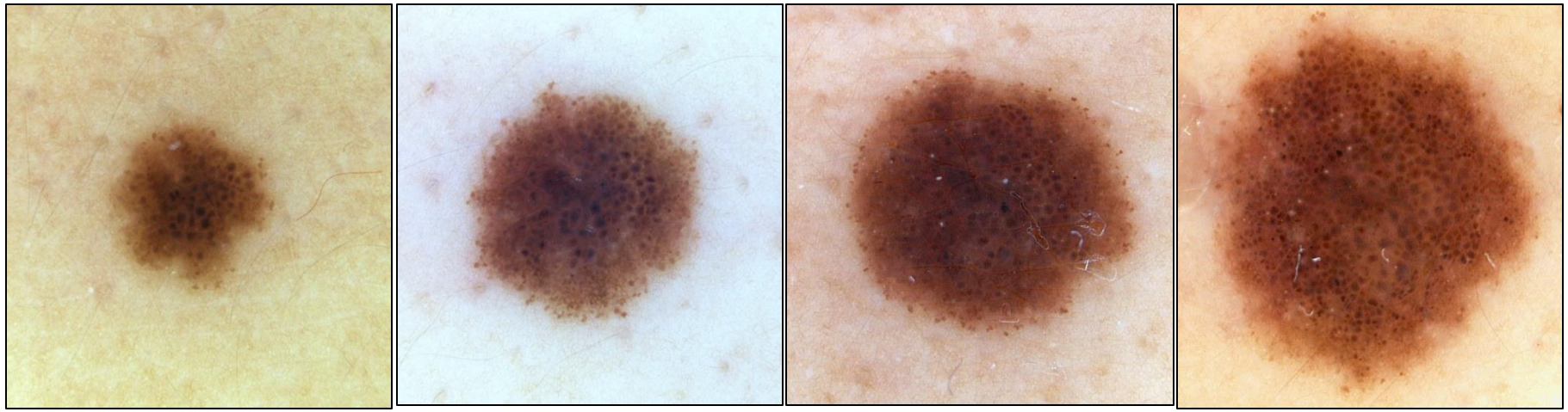
Why Dermoscopy?

- Dermoscopy opens up a new dimension of clinical morphology
- Dermoscopy "forces" physicians to dedicate more time and care for individuals with pigmented skin lesions
- Dermoscopy is more accurate than clinical examination based on four meta-analyses
- Digital dermoscopy allows easy storage & retrieval and opens the door for monitoring, teledermoscopy and automated diagnosis

Evolution of a 3 mm Spitz/Reed nevus in a 4-year-old boy over 3 years
Argenziano et al. 2007 Arch Dermatol 143: 549 -- 551

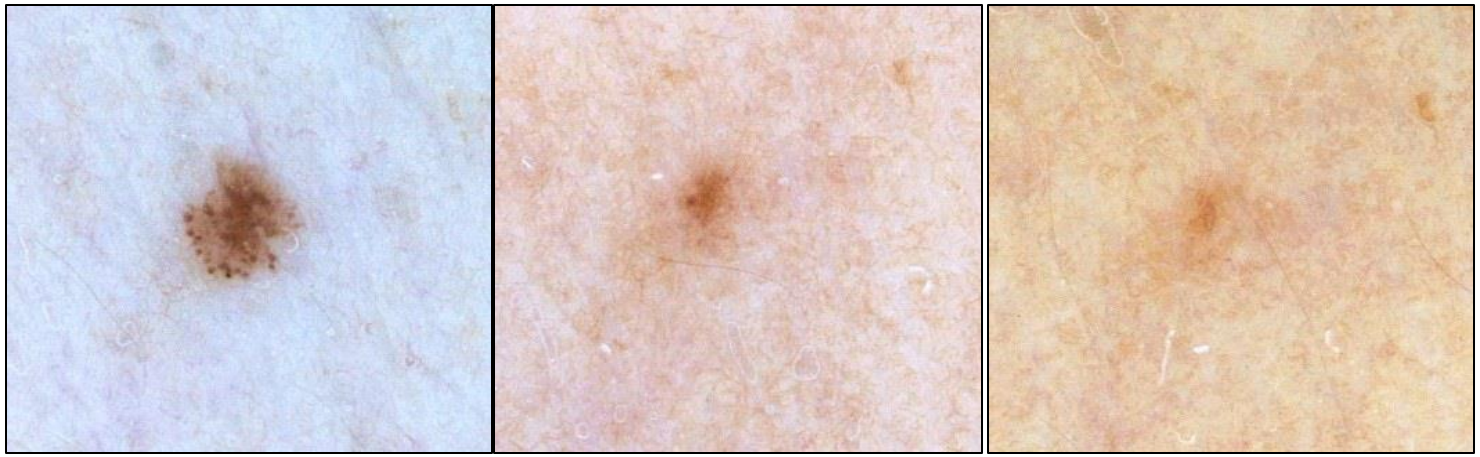
Patient: Female, 39 years old

Lesion: Central Mid Back

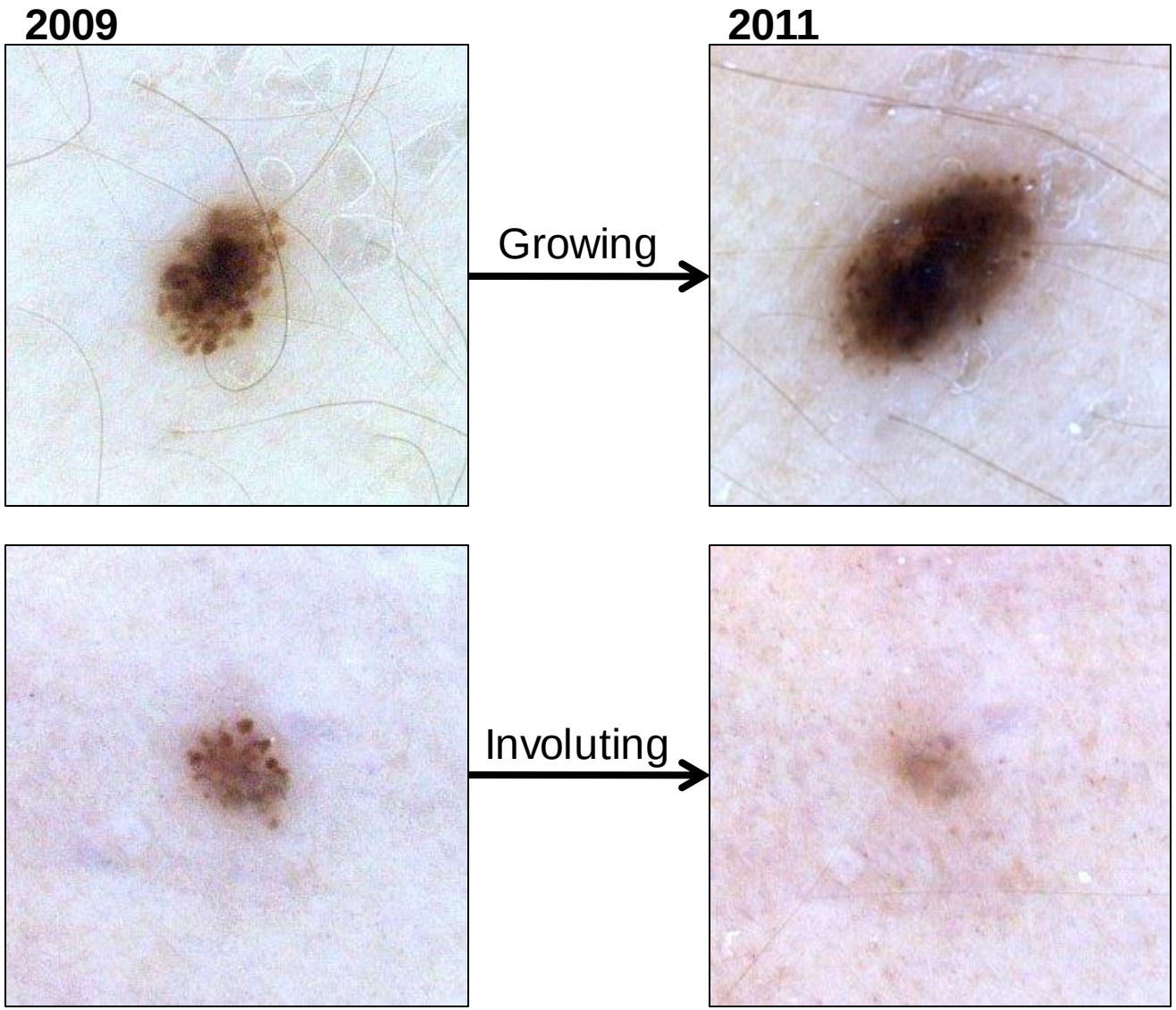


December 2006 August 2008 December 2009 January 2012

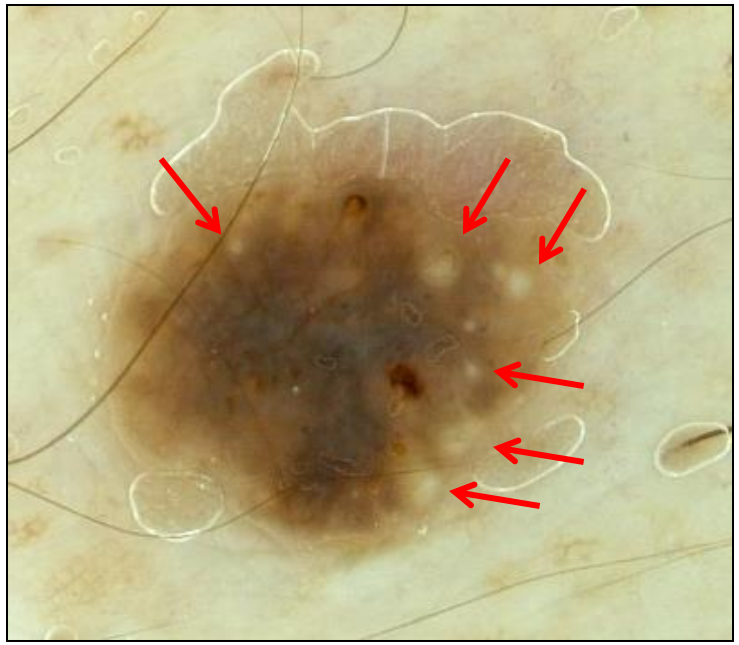
Lesion: Chest



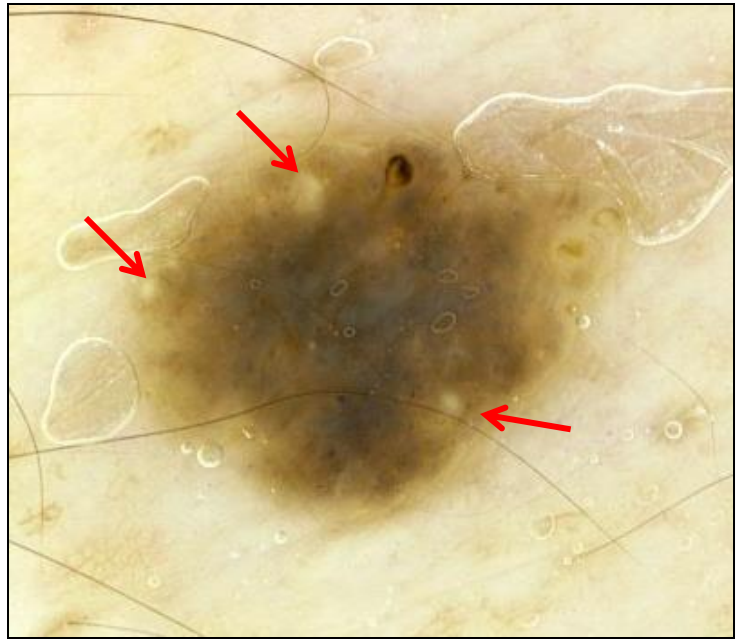
August 2008 December 2009 January 2012


2009
2011
Growing
Involuting

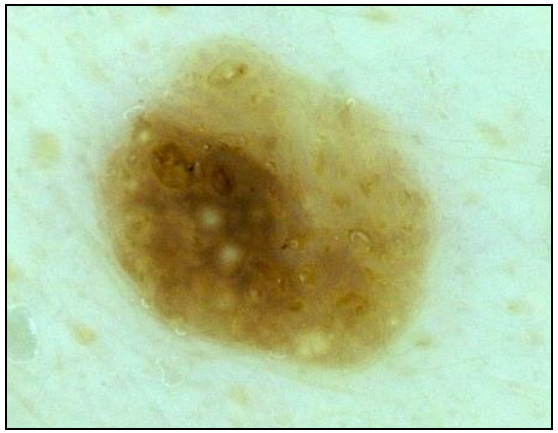
Changing Seborrhoeic Keratosis



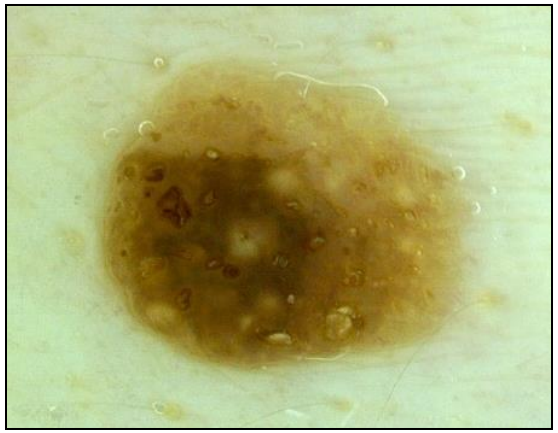
12 Months



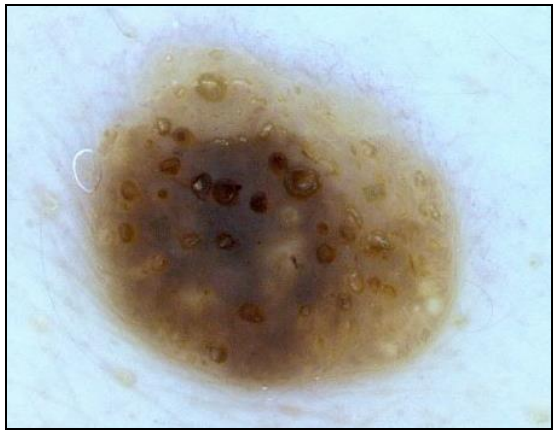
Changing Seborrhoeic Keratosis



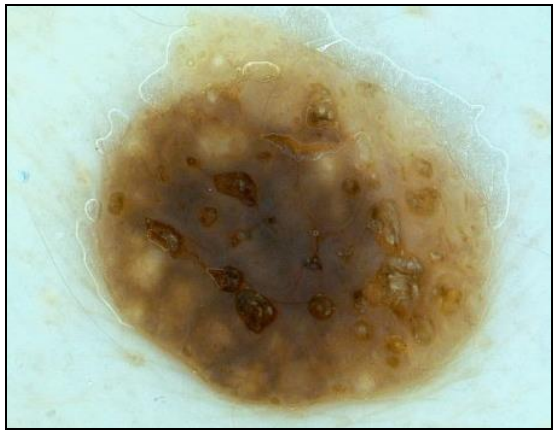
2007



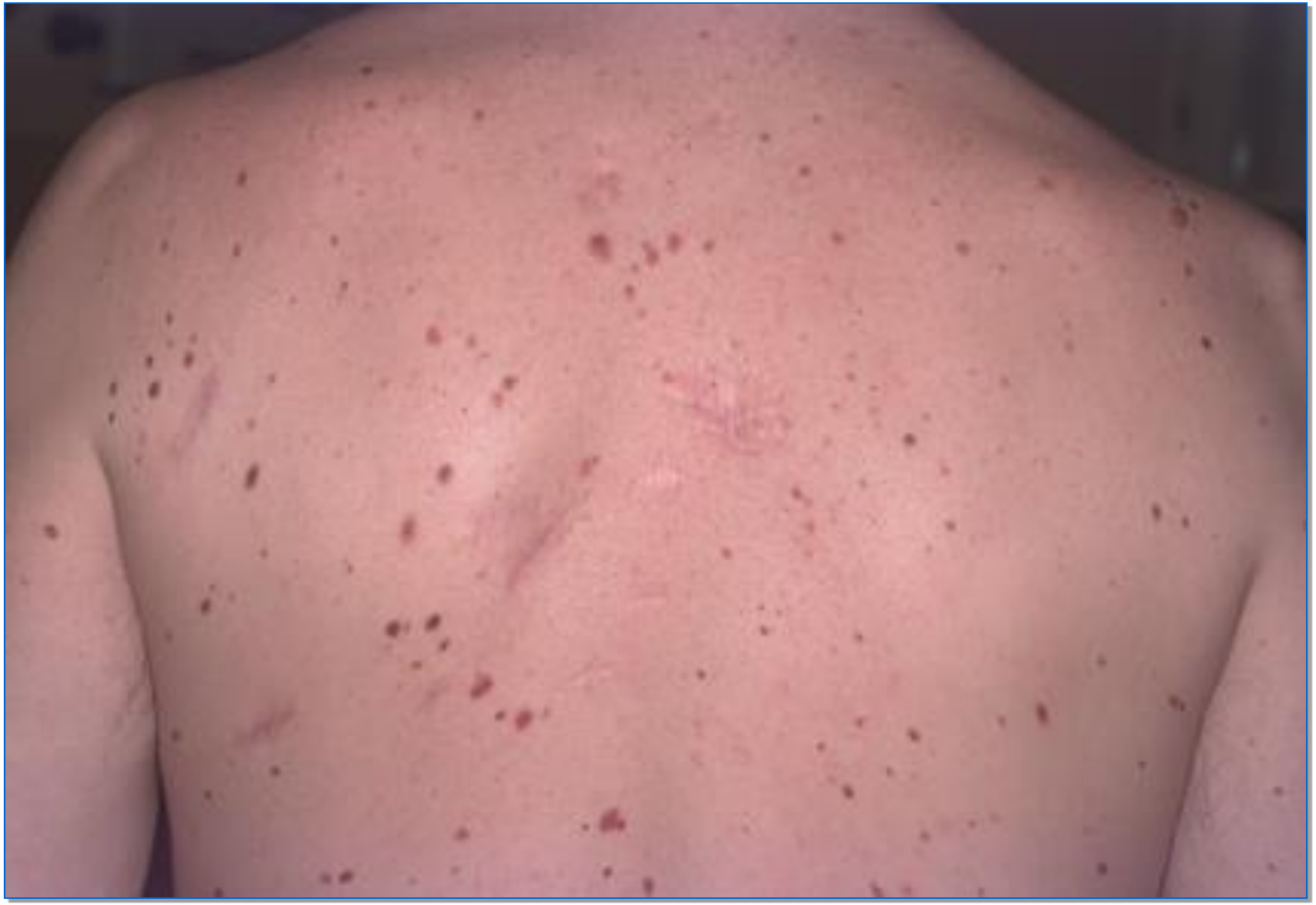
2009

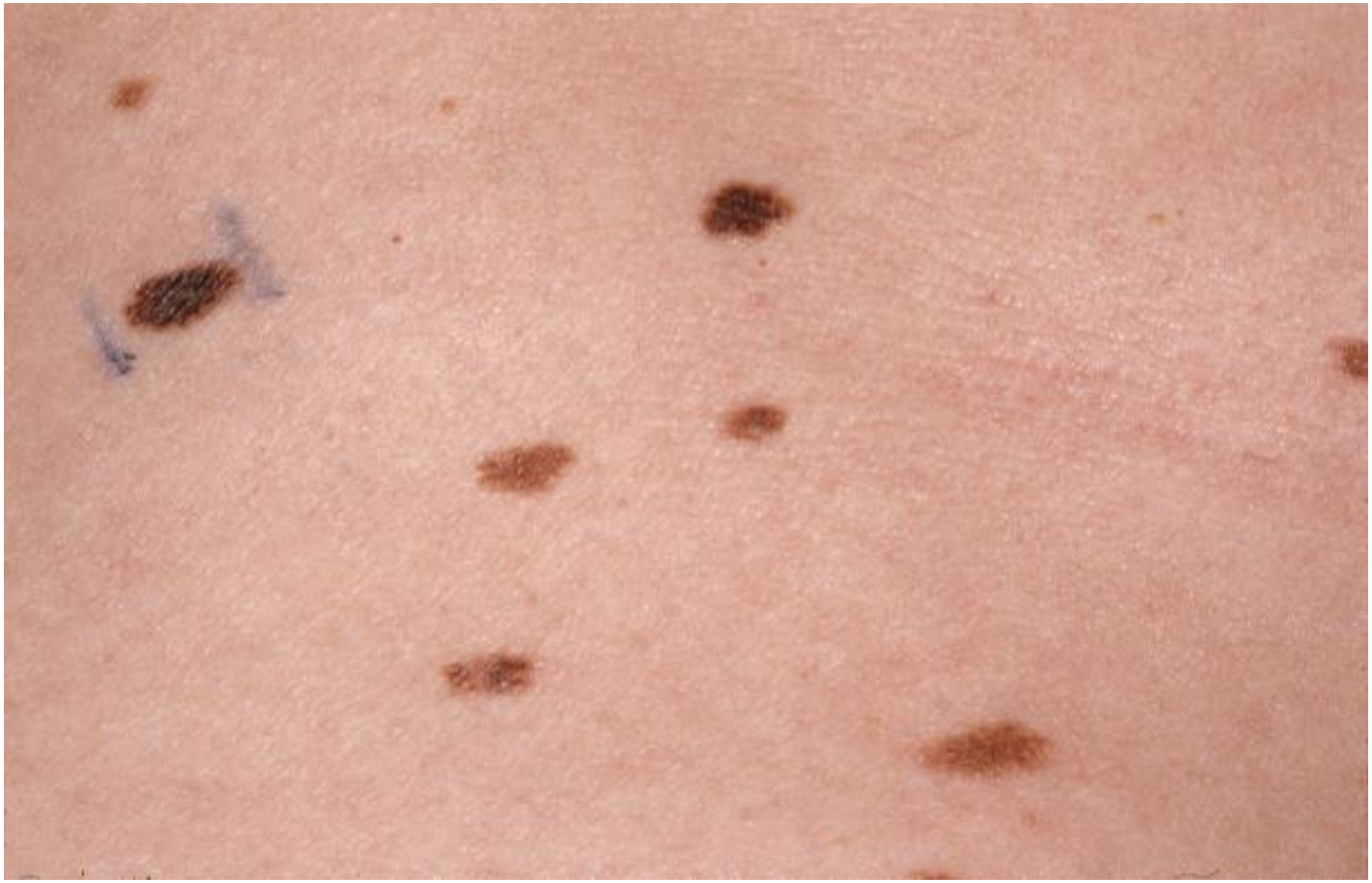


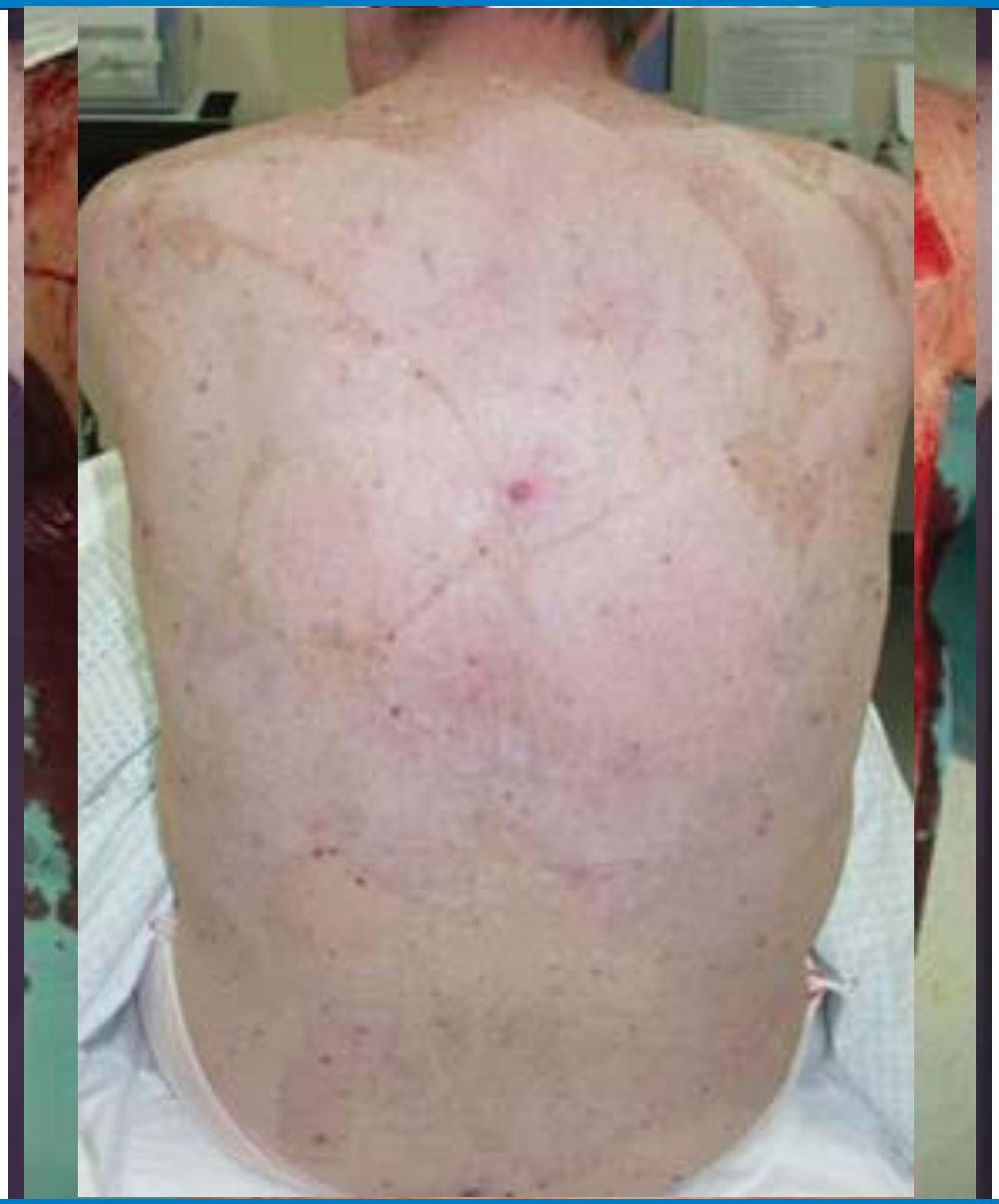
2010



2011







JDDG Journal of the German Society of Dermatology

DOI: 10.1111/j.1610-0387.2009.07095.x

Dysplastic nevus syndrome with development of multiple melanomas. A surgical concept for prophylaxis

Corinna Brod, Wilfried Schippert, Helmut Breuninger
Department of Dermatology, University of Tübingen, Germany

JDDG; 2009 · 7 Submitted: 23. 1. 2009 | Accepted: 16. 3. 2009

Case report

History

A 58-year-old man with hereditary dysplastic nevus syndrome had several hundred nevocellular nevi, at least 300–400, of which far more than 100 were clinically atypical (Figure 1).

Externally multiple excisions of melanocytic and dysplastic nevi had been performed. In 2001 three melanomas on the back and breast 0.3–0.9 mm in thickness had been excised elsewhere. The patient was then referred to us for the first time for re-excision with safety margin.

Clinical findings

In 2001 about 300–400 melanocytic nevi were found with emphasis on the back and upper arms but also disseminated on the anterior chest and legs, of which about 100 were clinically and dermatoscopically atypical melanocytic

Value of Dermoscopy

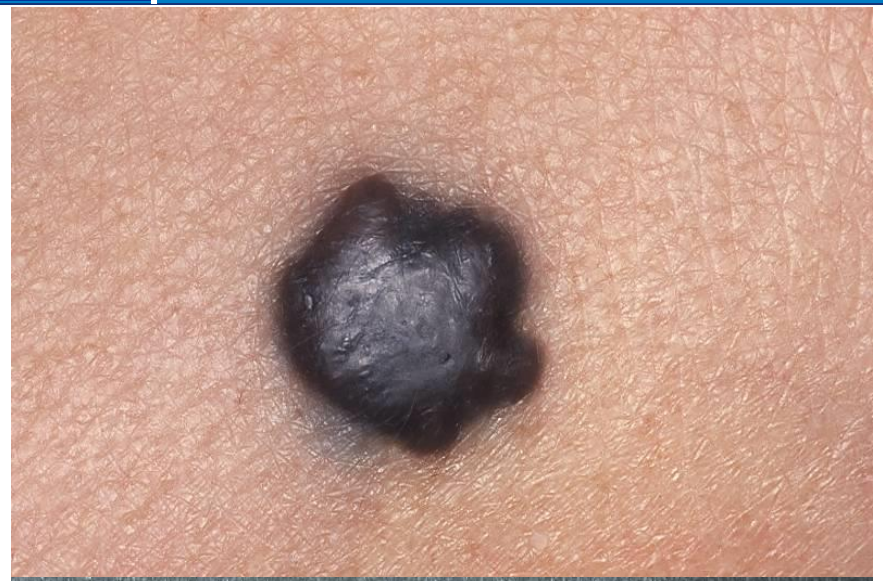
- Improves clinical efficiency
- Builds clinical confidence
- Bridges clinical exam & dermatopathology
- Specialist and primary care setting

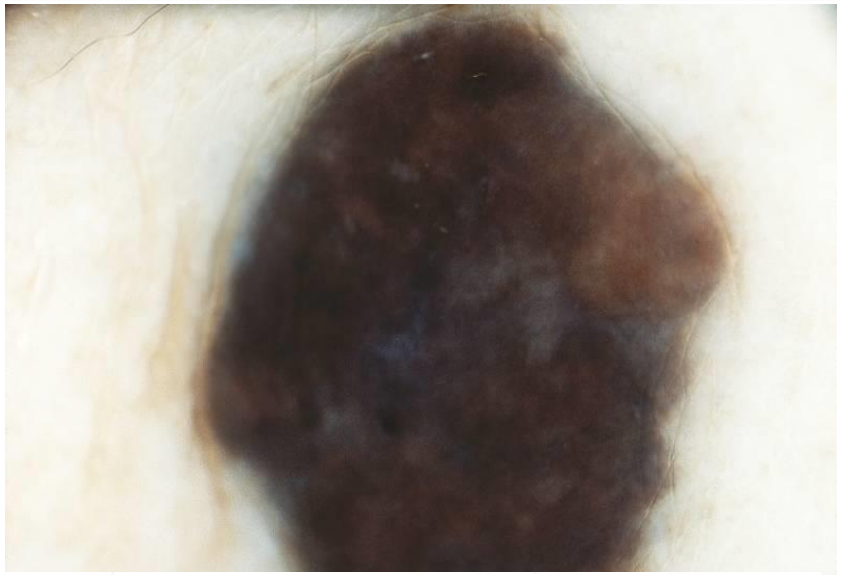
Value is influenced by observer experience

Menzies SW & Zalaudek I. Why perform dermoscopy? [editorial] Arch Dermatol 2006;142:1211-12

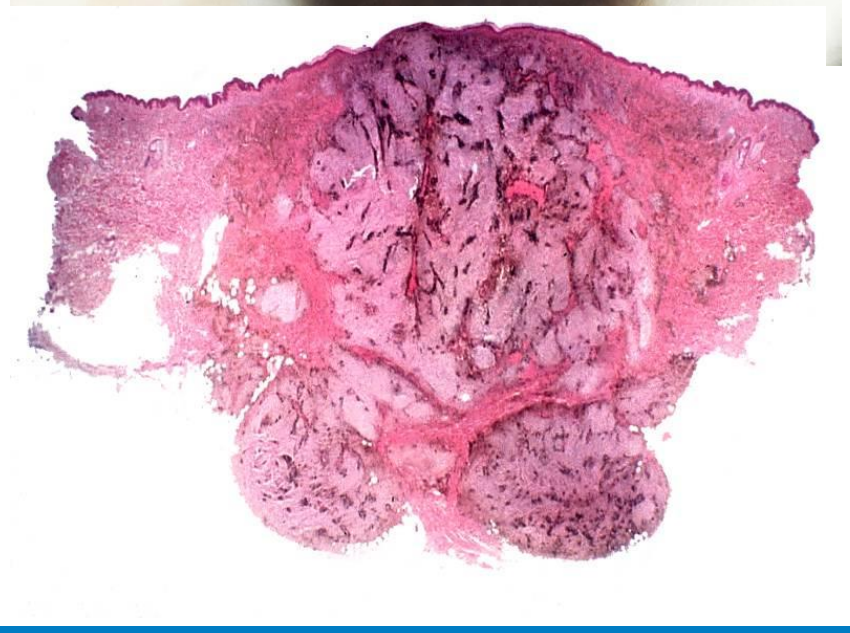
Dermoscopic-pathologic Correlation

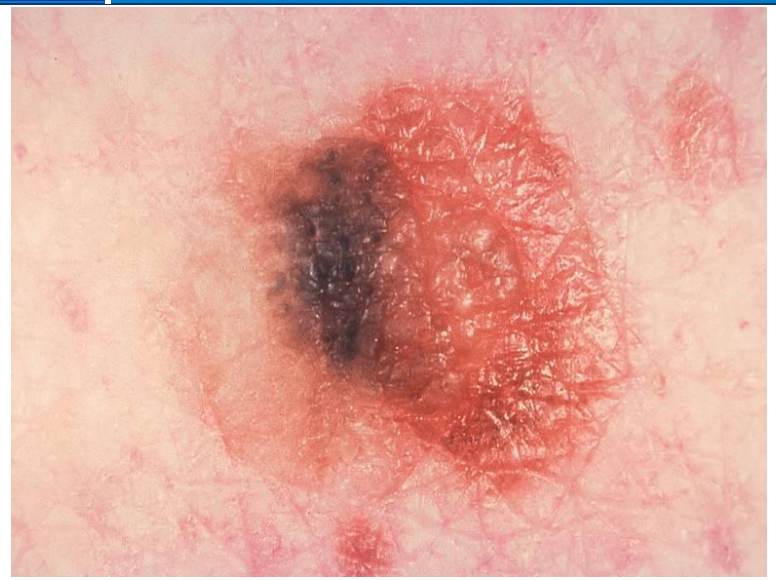
- Basic aspects
- Histopathologic correlates of dermoscopic features
- Case series

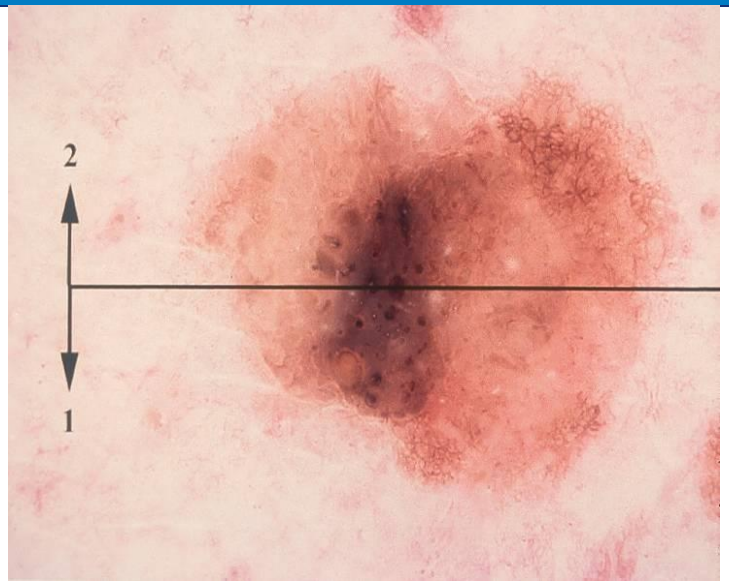


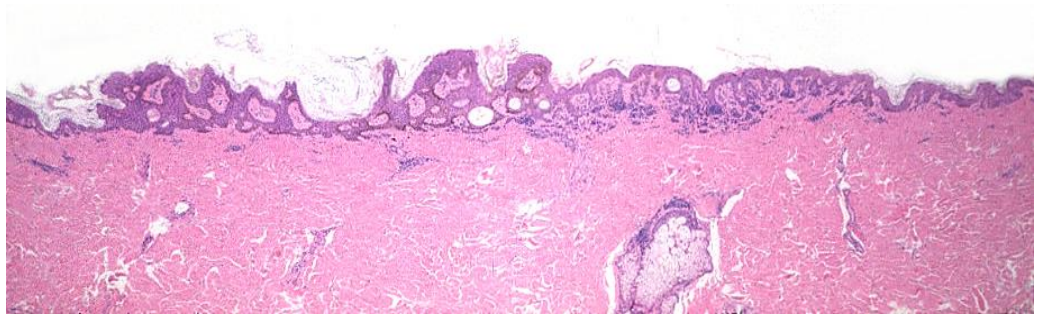


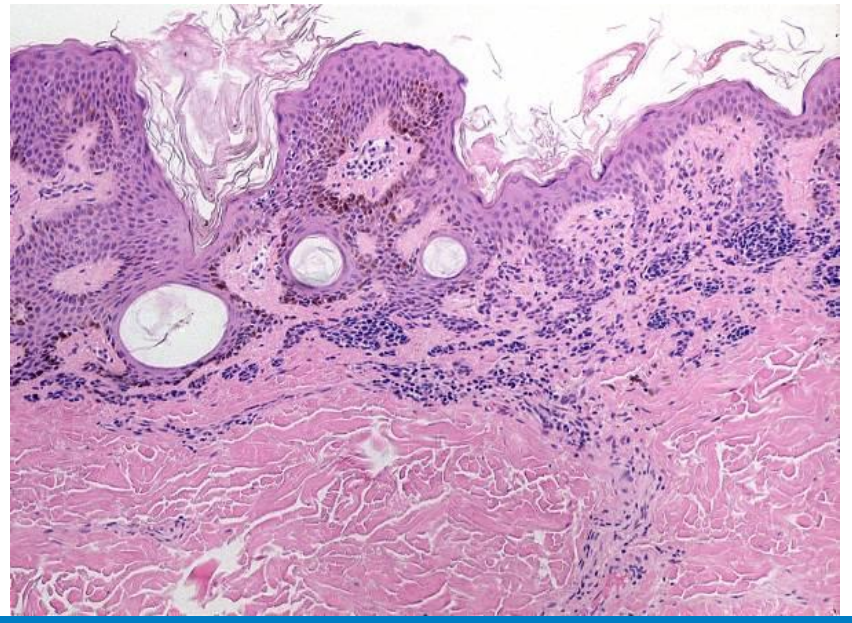

Cellular blue nevus



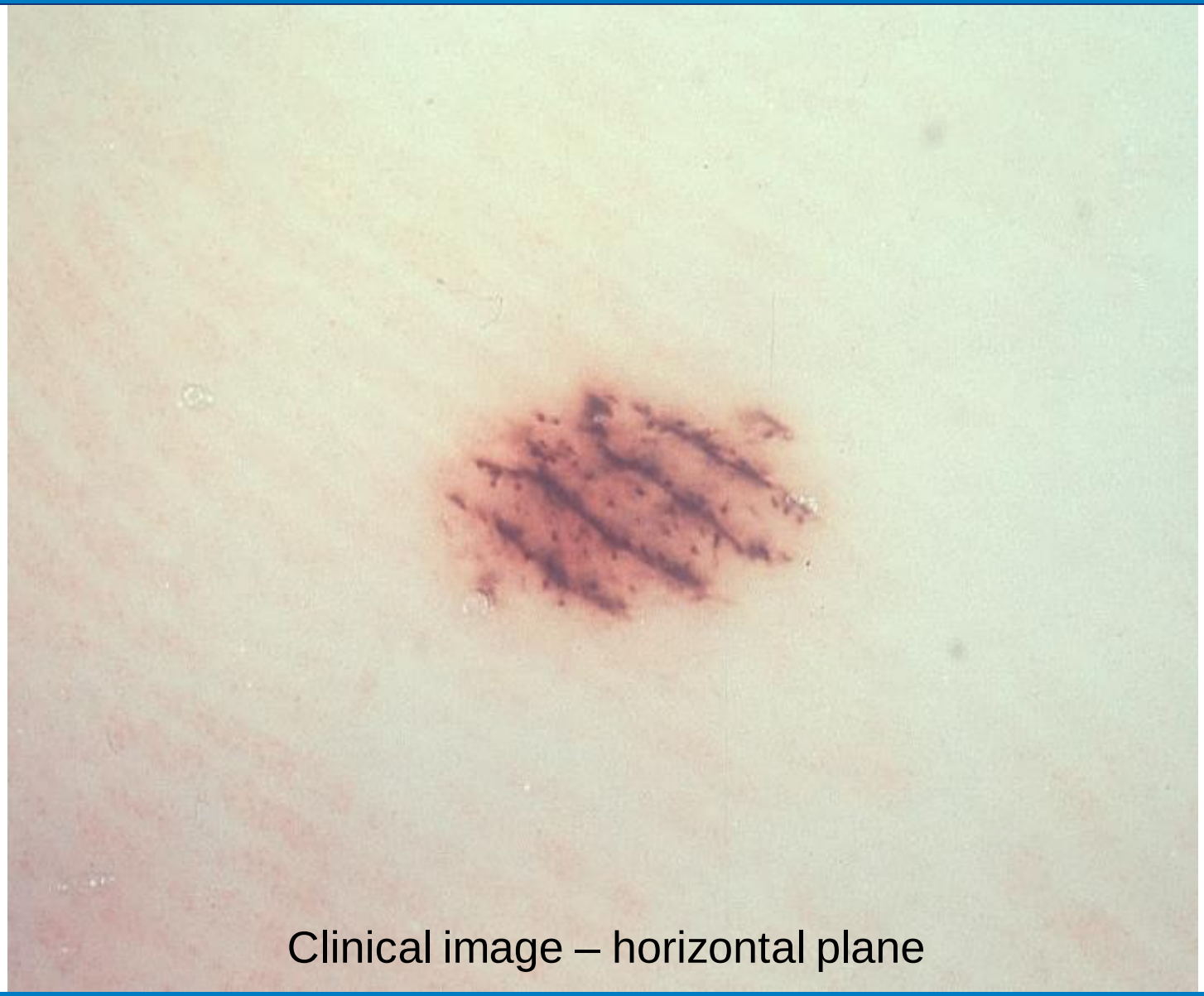




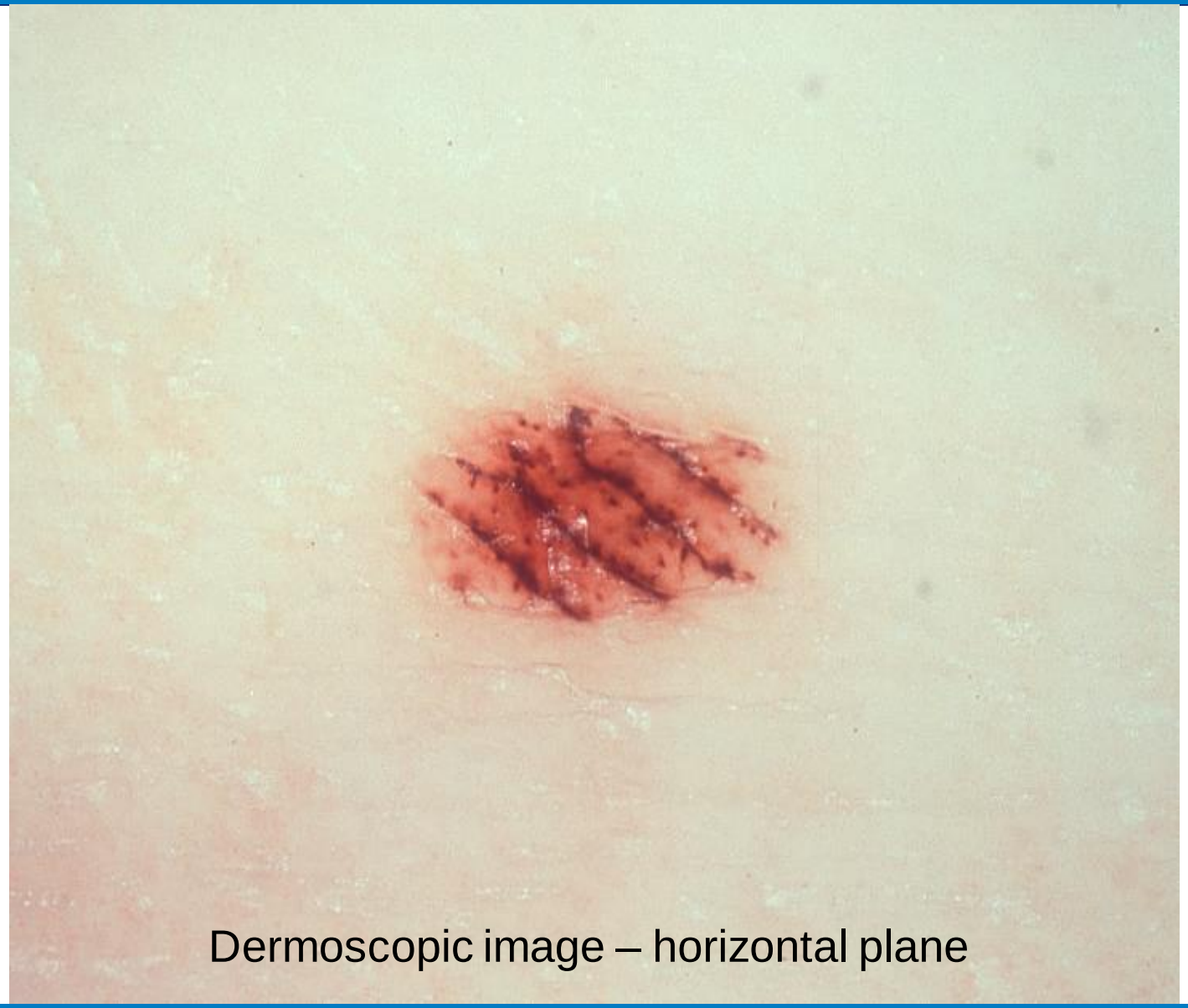




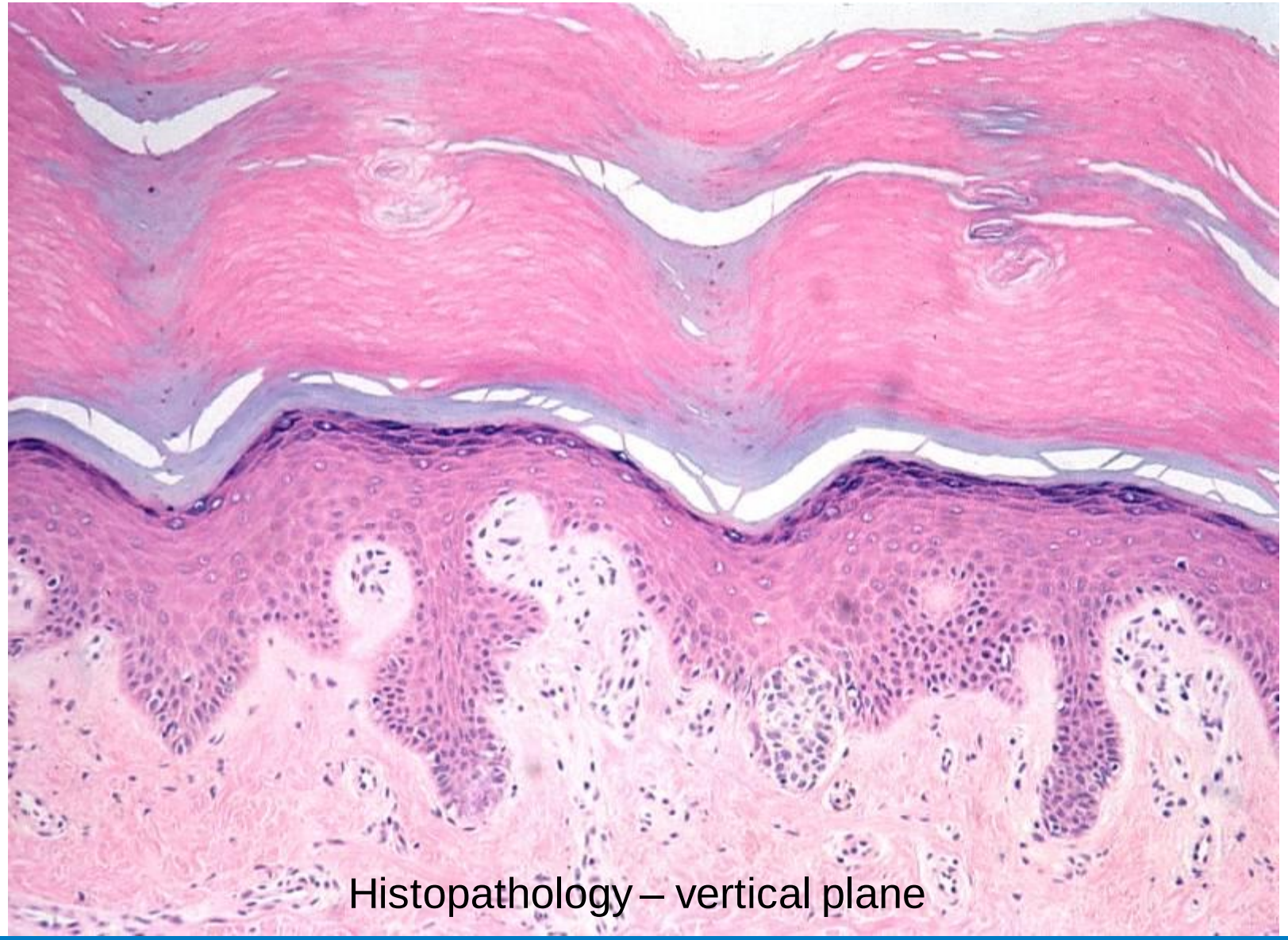
Seborrheic keratosis in association with a melanocytic (Clark) nevus



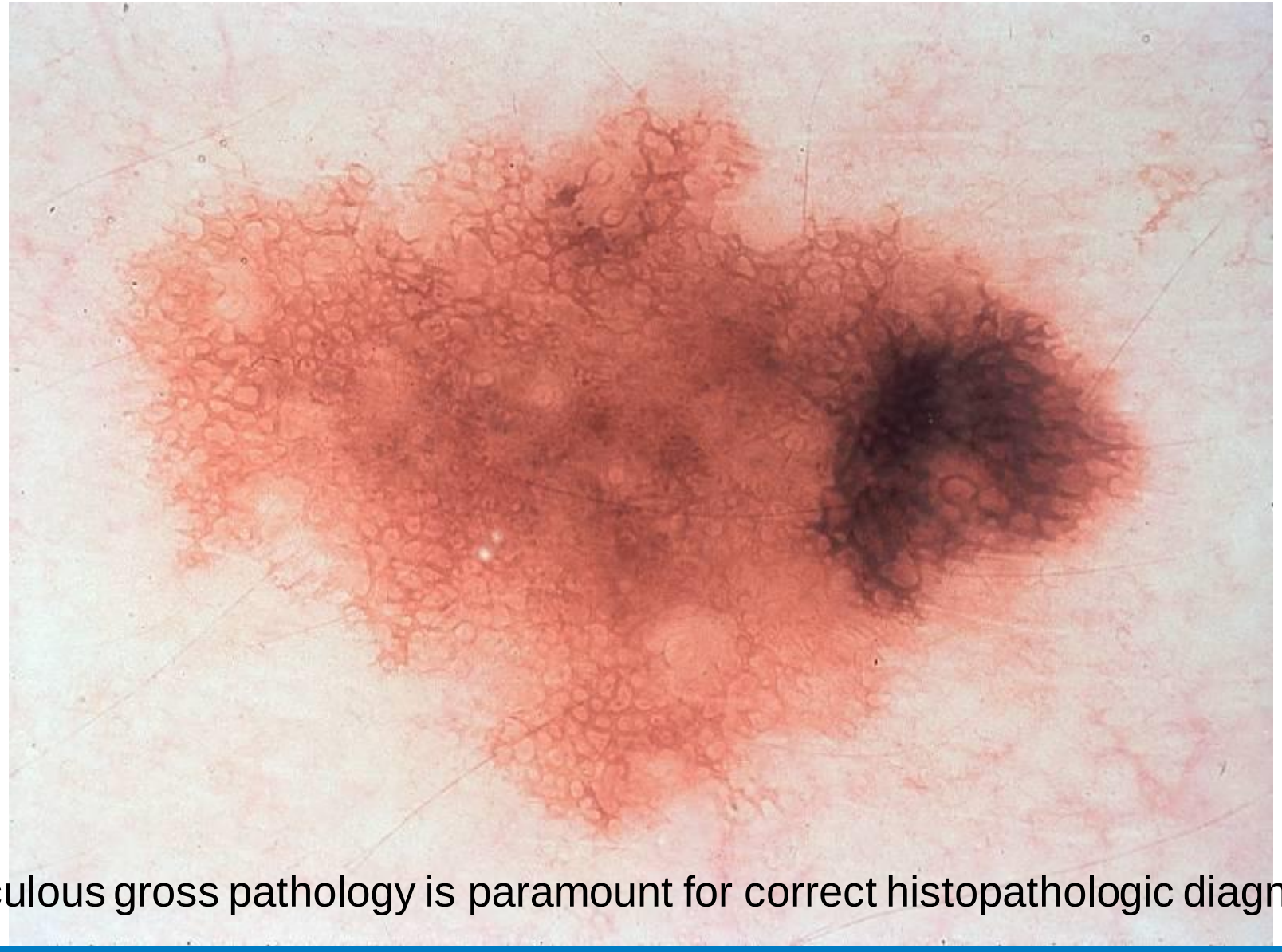
Clinical image – horizontal plane



Dermoscopic image – horizontal plane



Histopathology – vertical plane



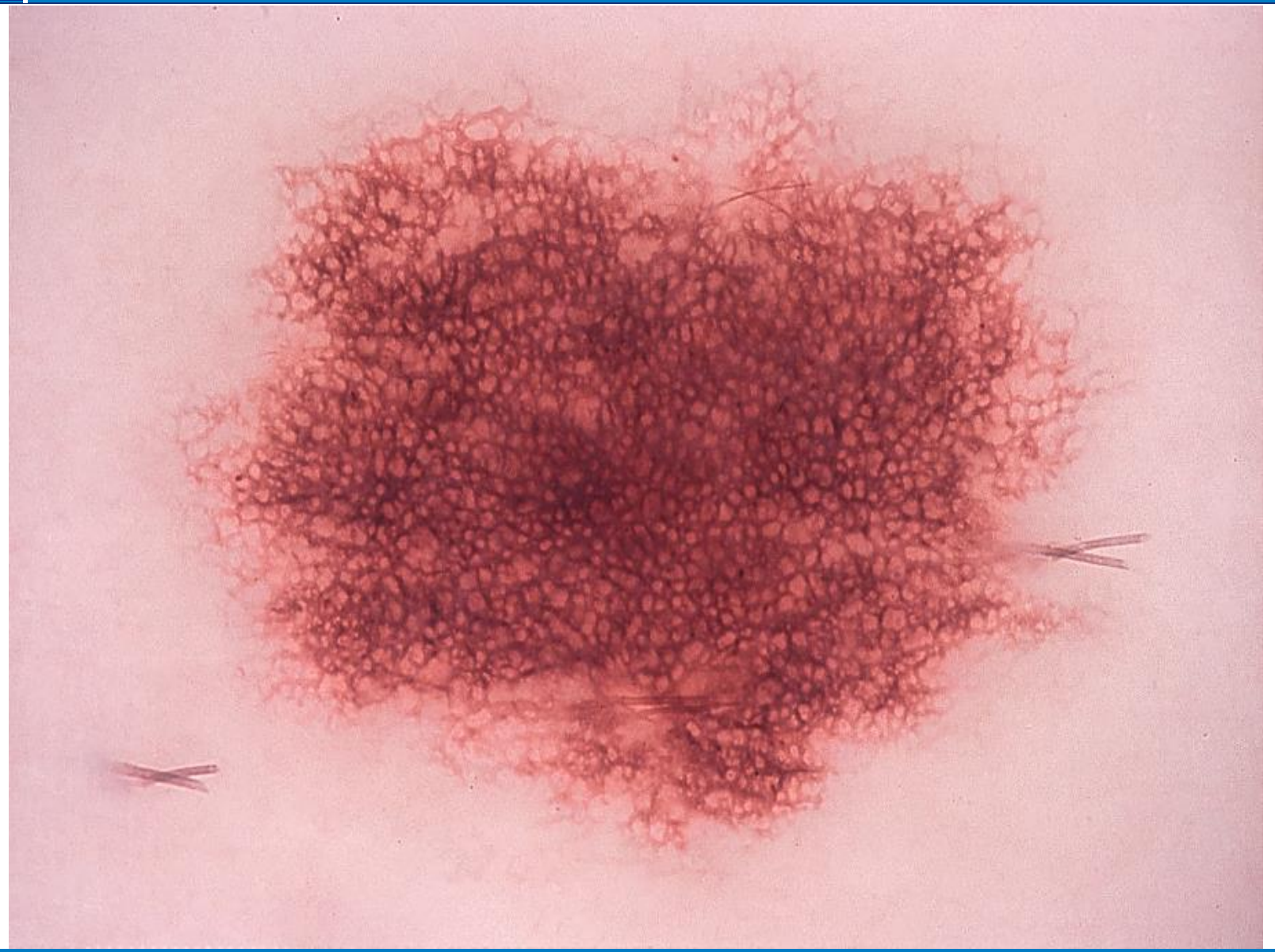
Meticulous gross pathology is paramount for correct histopathologic diagnosis

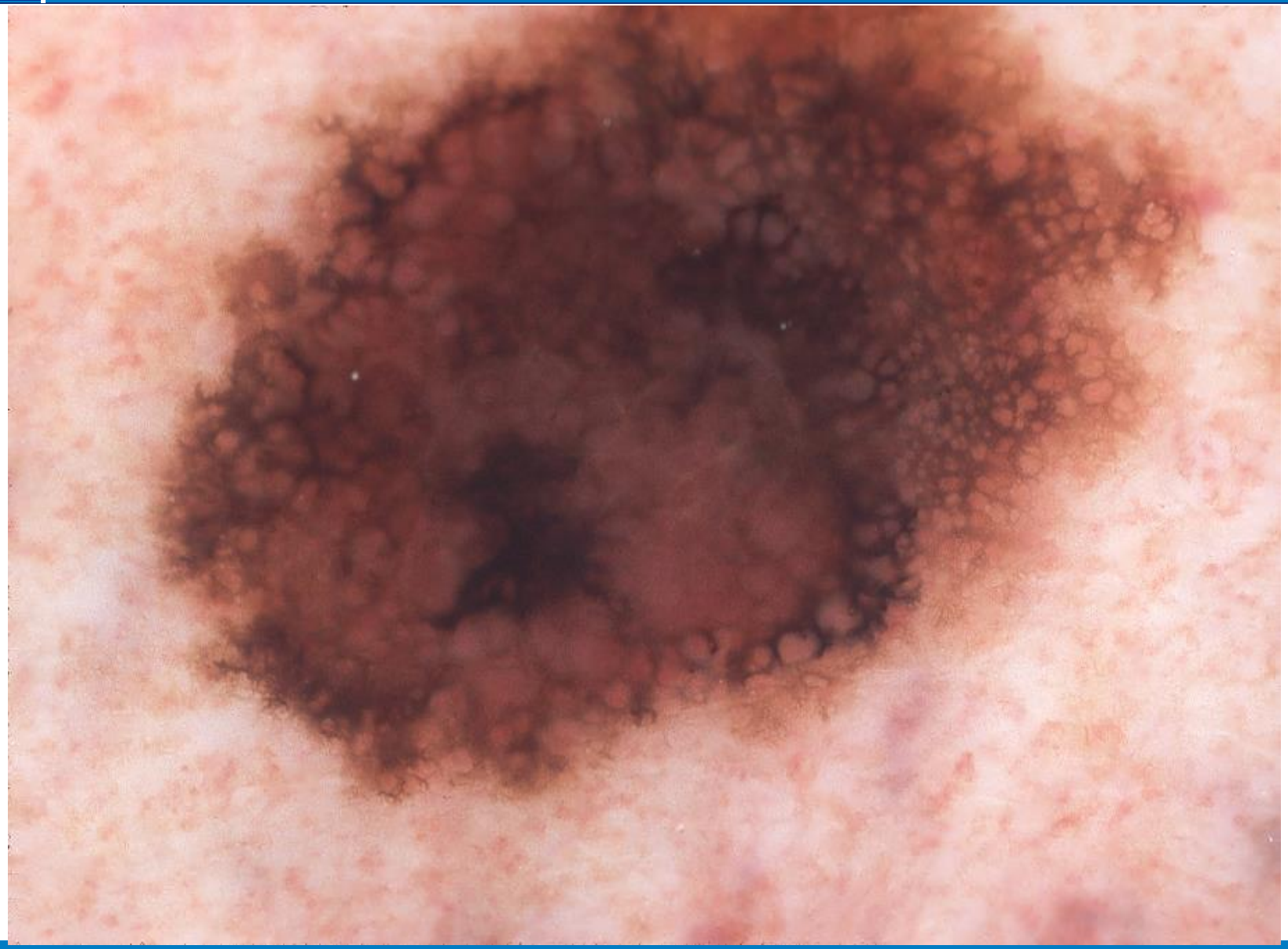
Dermoscopic-pathologic Correlation

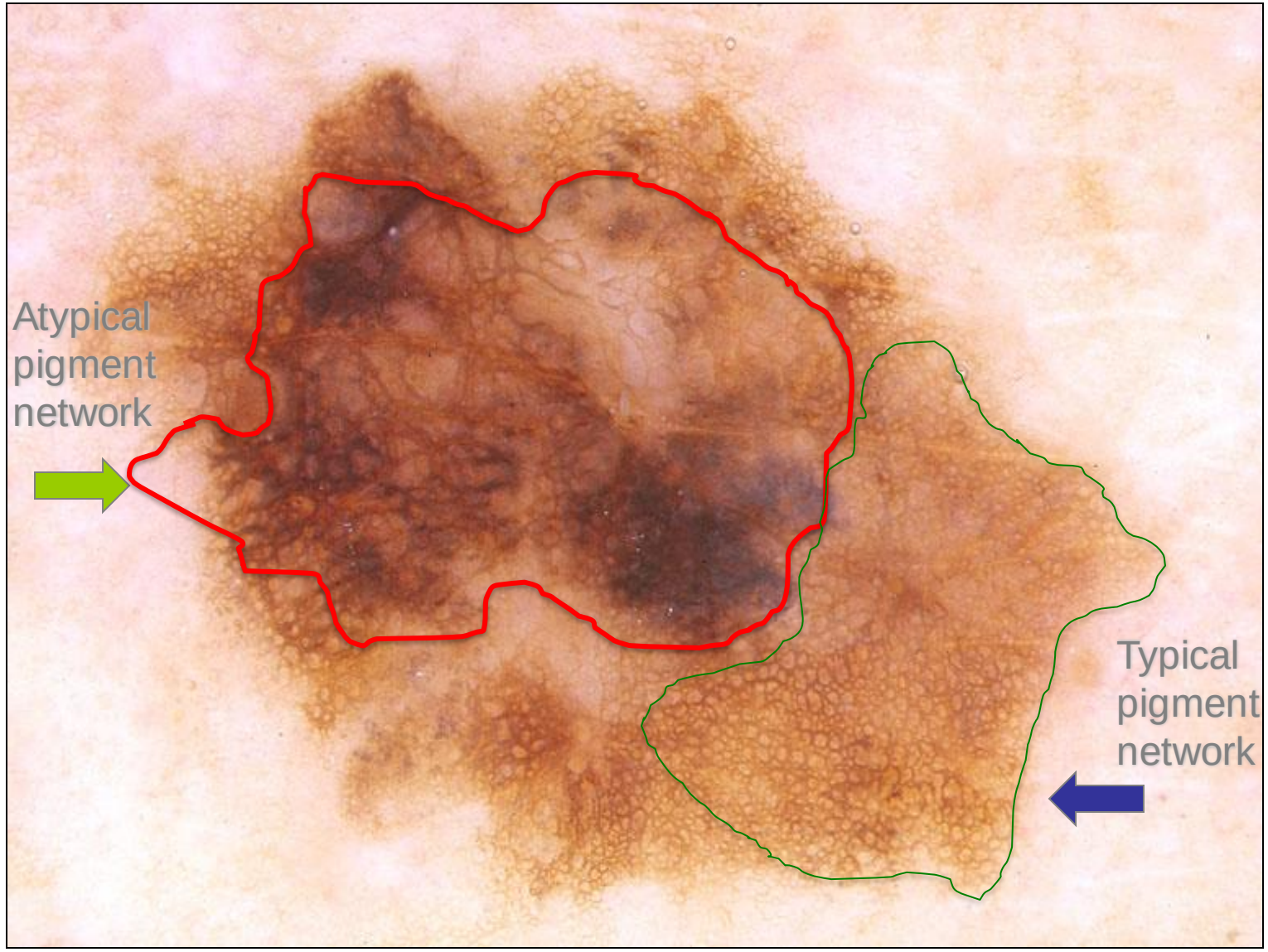
- Basic aspects
- ➢ Histopathologic correlates of dermoscopic features
- Case series

Local Features

- Pigment network
- Streaks
- Dots/globules
- Regression structures
- Comedo-like openings






Atypical pigment network
Typical pigment network

Pigment Network

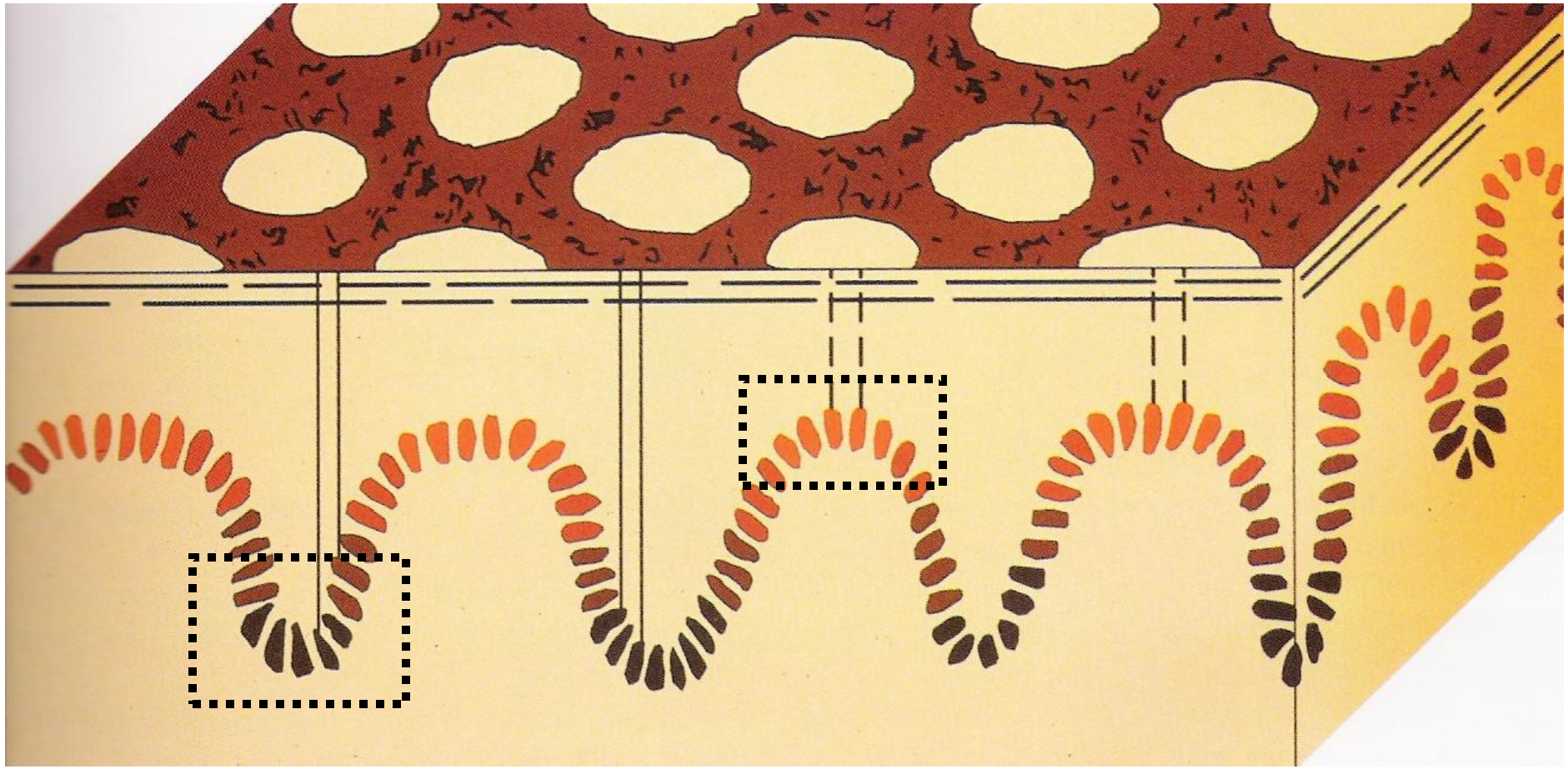
- Typical pigment network

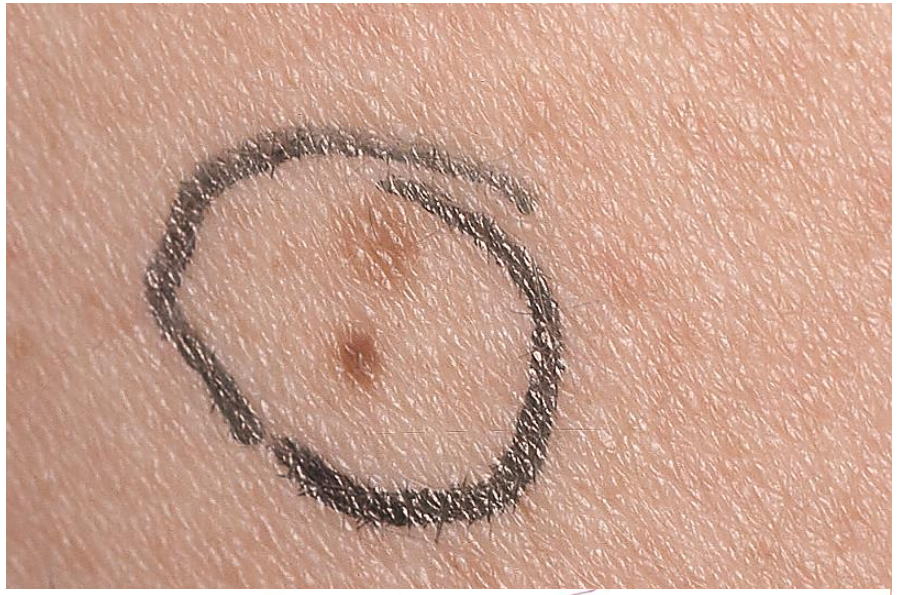
Common finding in dysplastic nevi (reticular nevi), but many variations on the theme

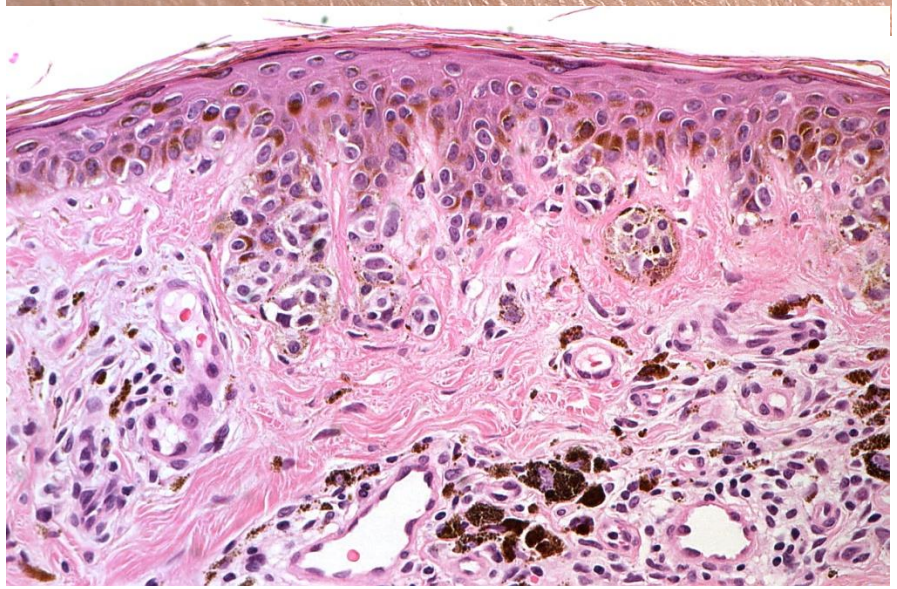
Delicate network also in lentigo simplex, solar lentigo and dermatofibroma

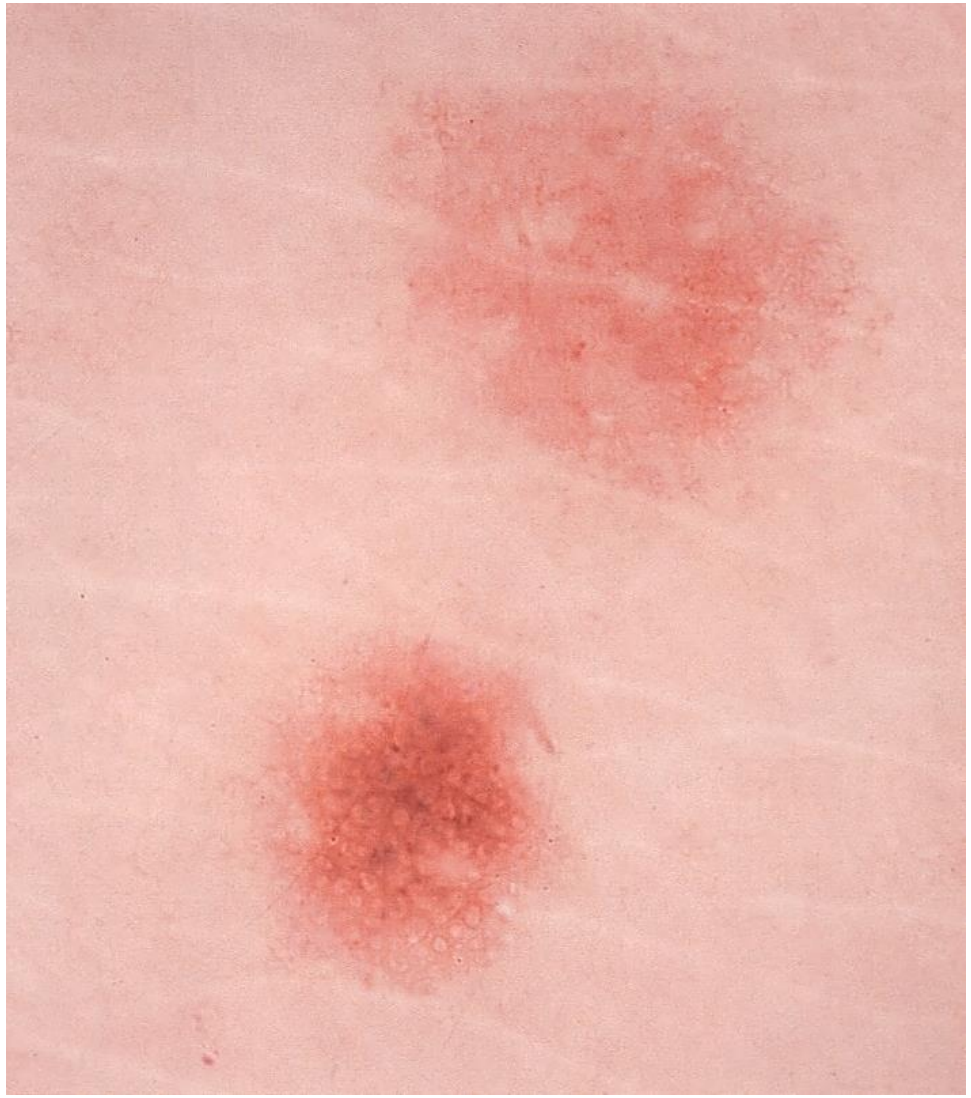
- Atypical pigment network

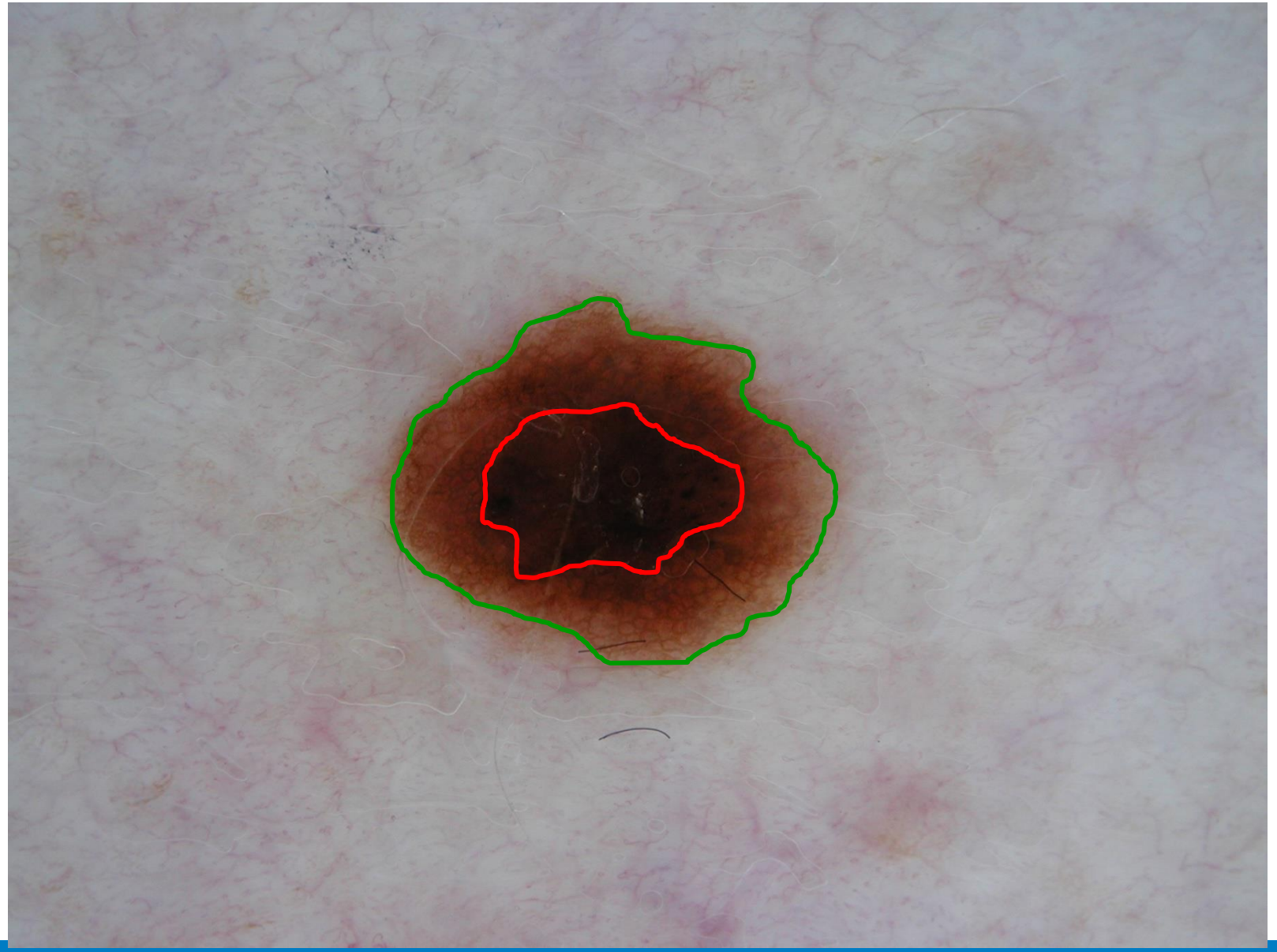
Dermoscopic criterion with high specificity for the diagnosis of melanoma

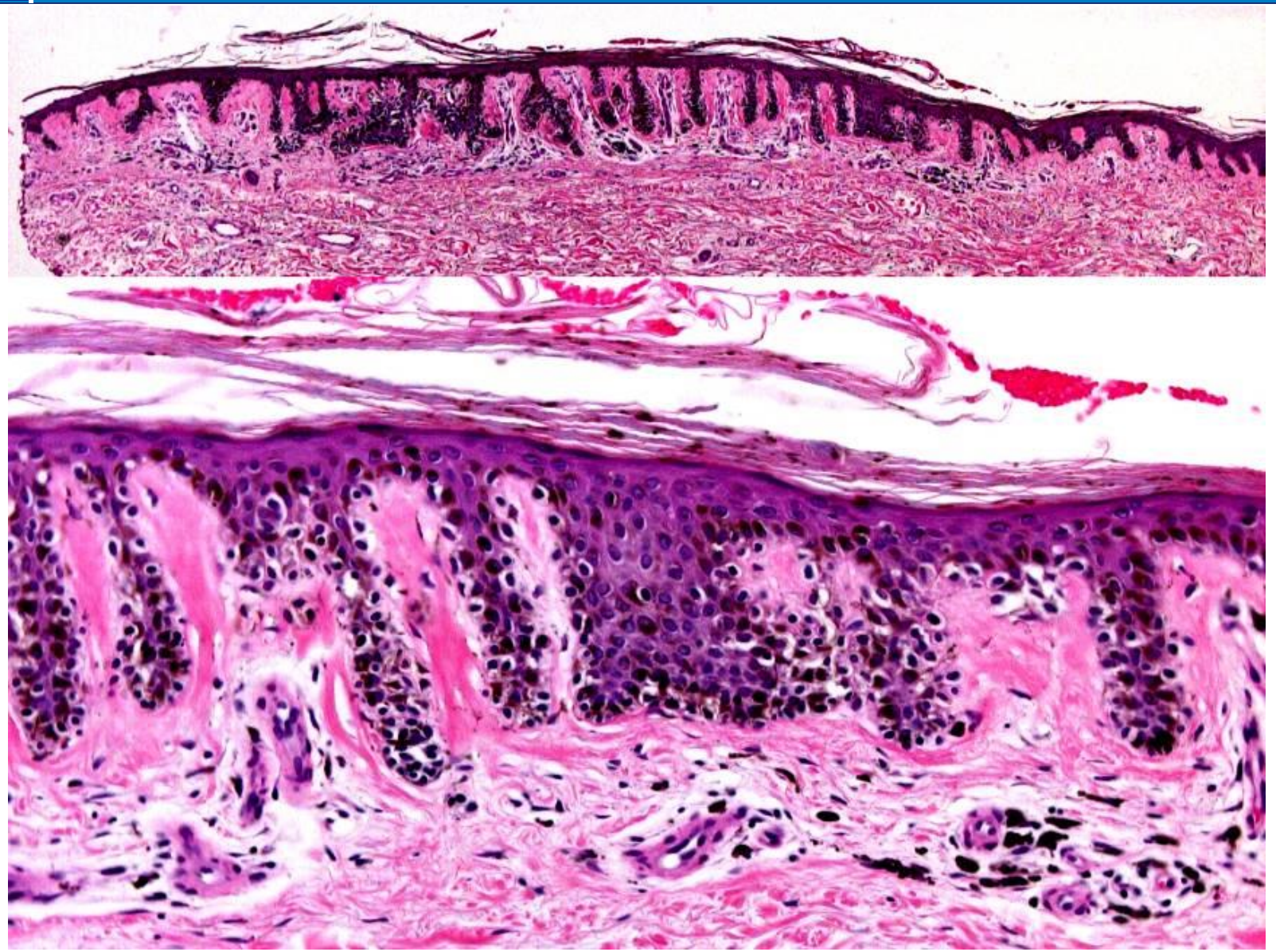


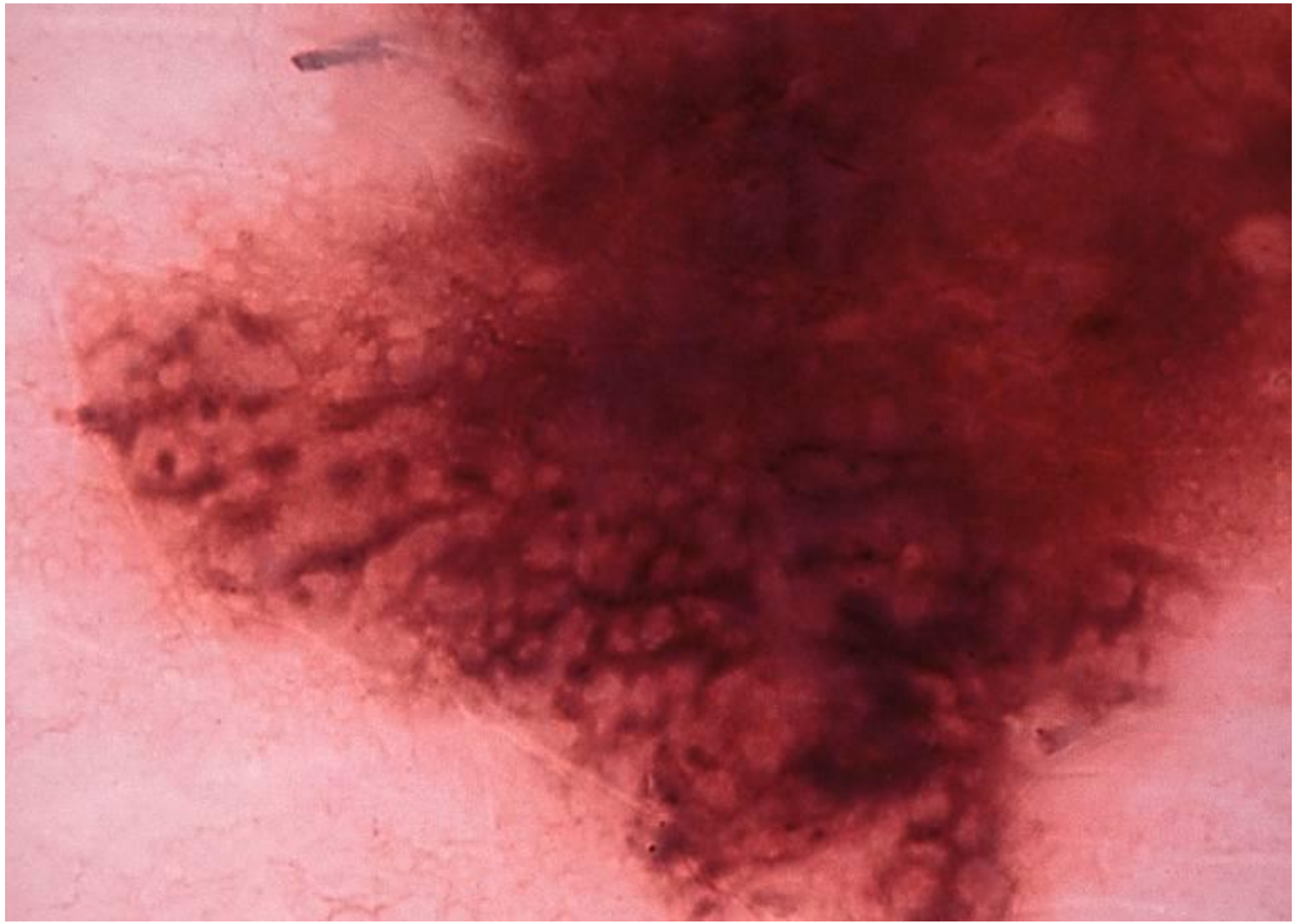




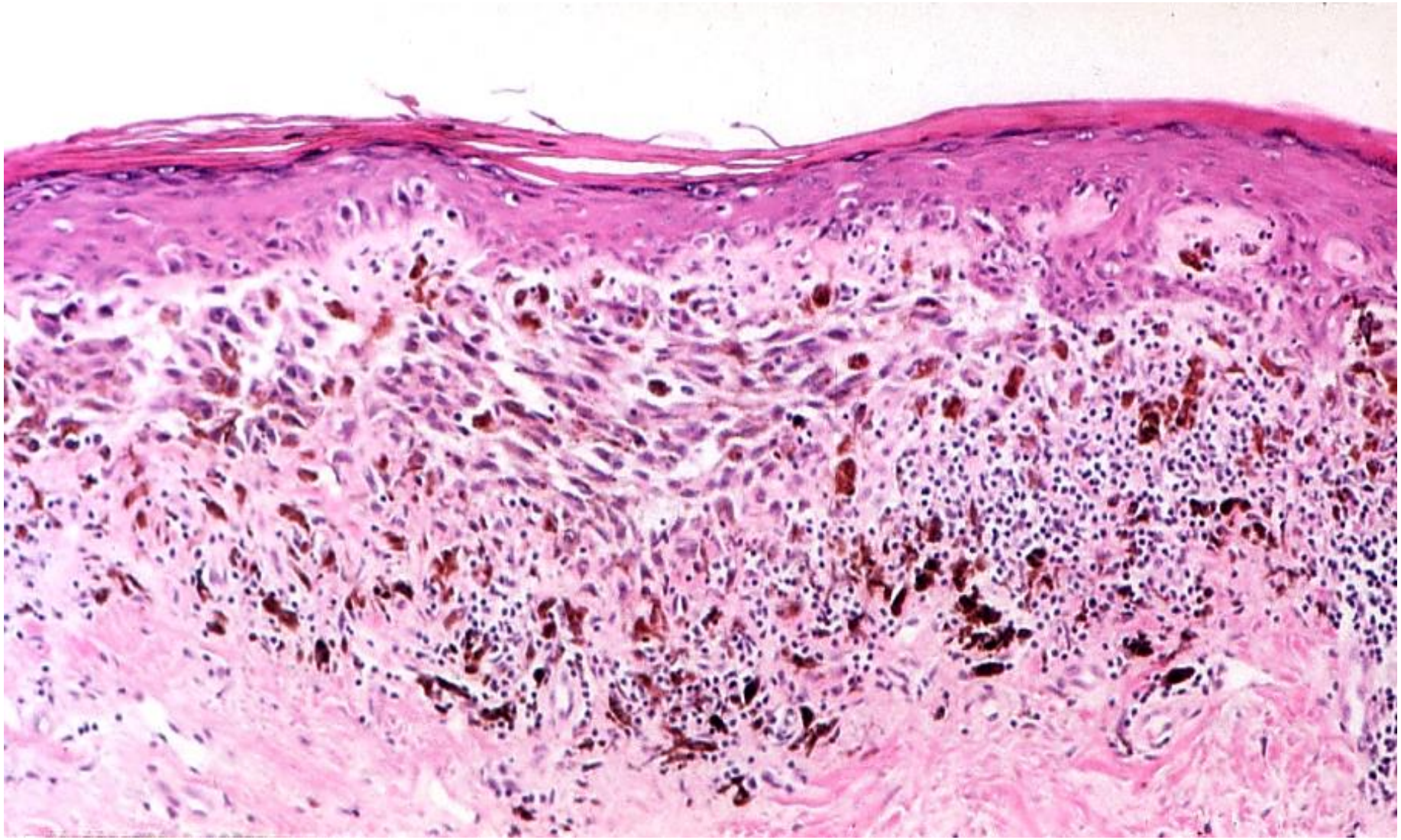




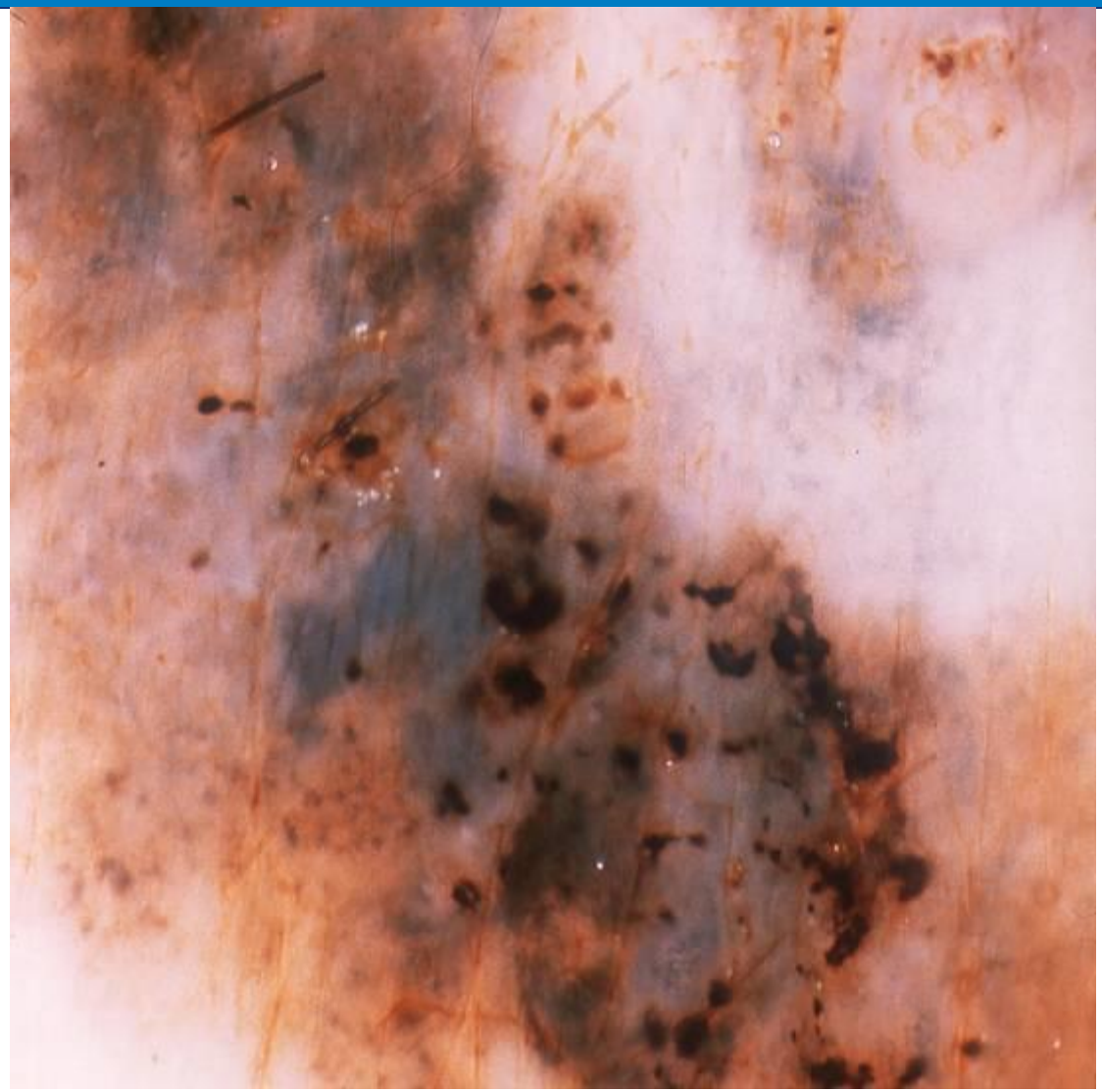




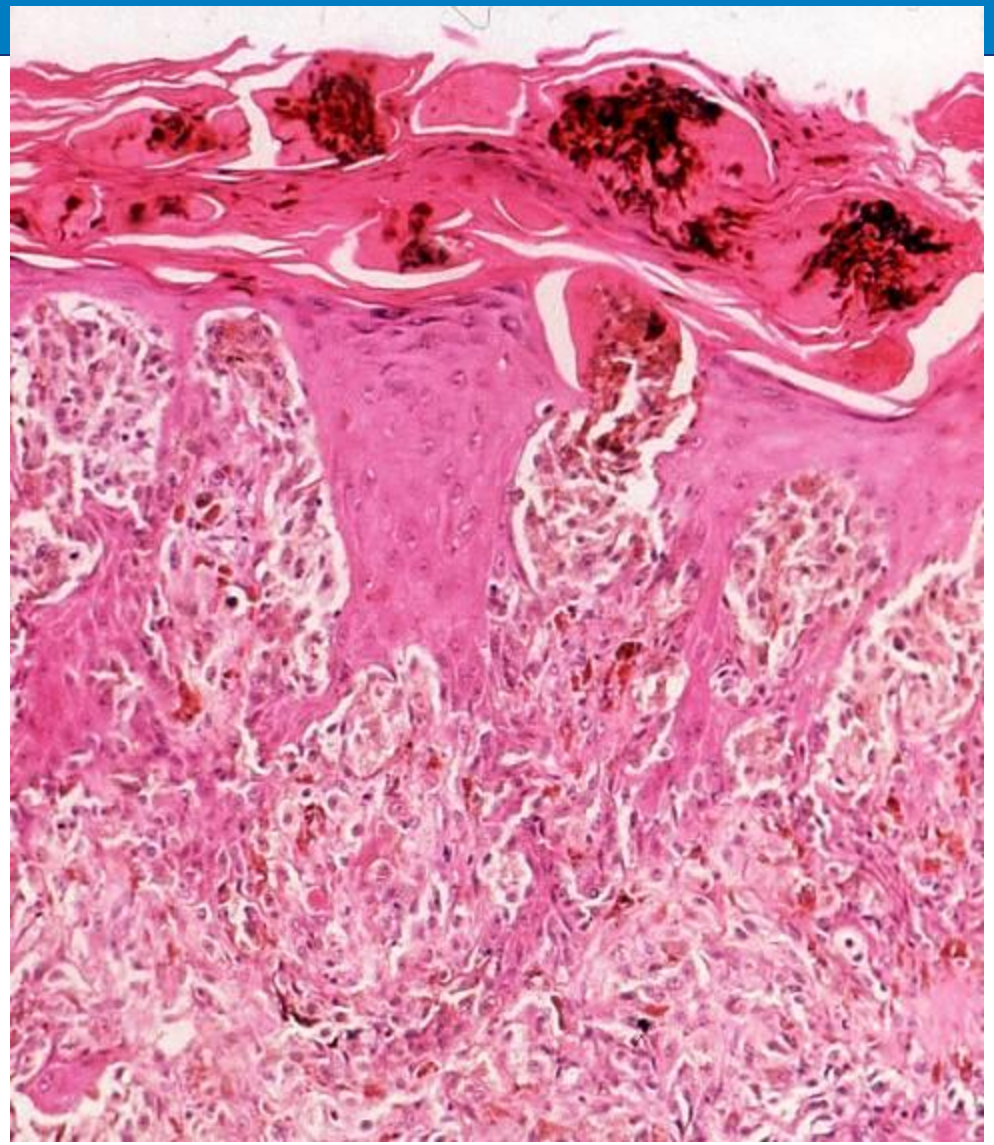
Streaks at the periphery of a superficial melanoma



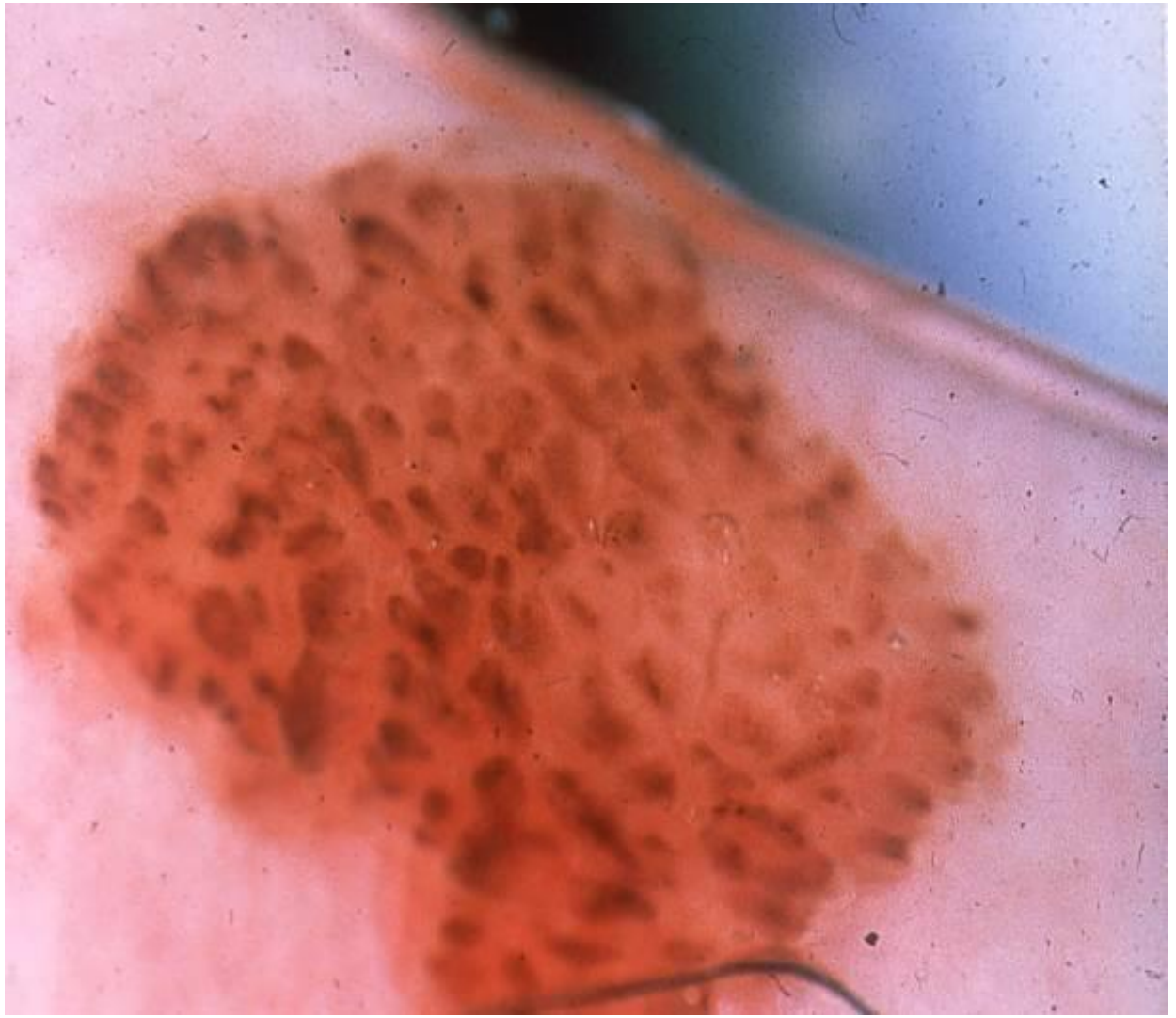
Confluent junctional nests of melanocytes



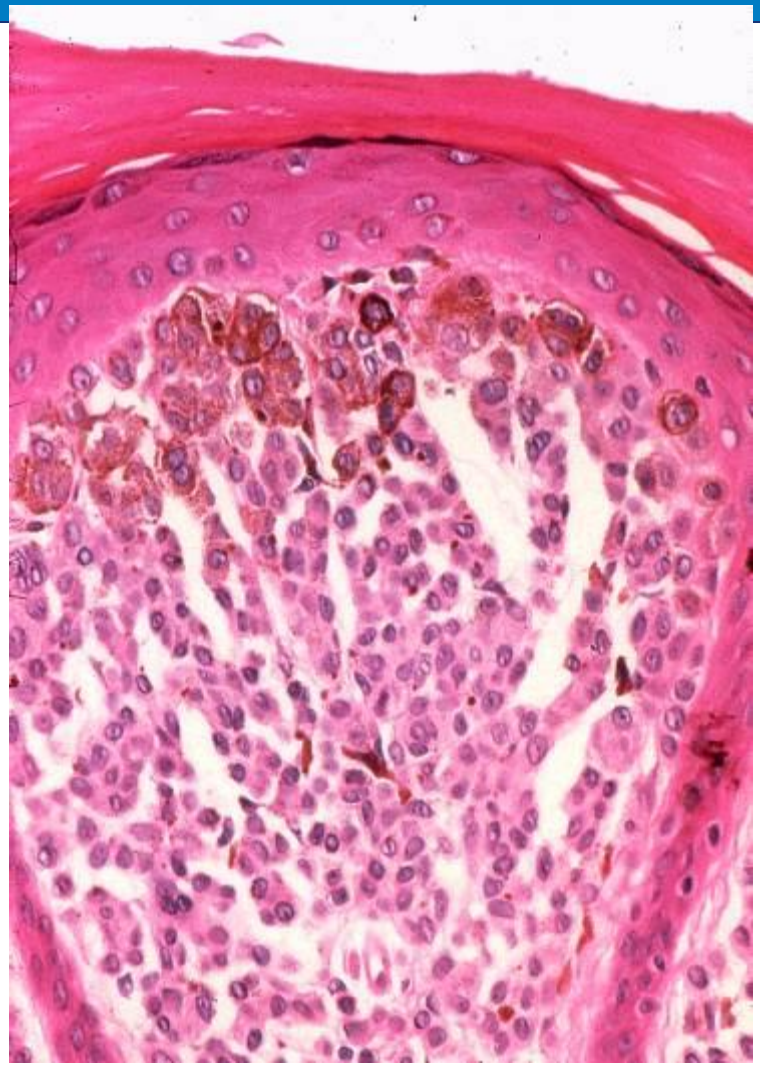
Black dots/globules varying in size and shape within a melanoma



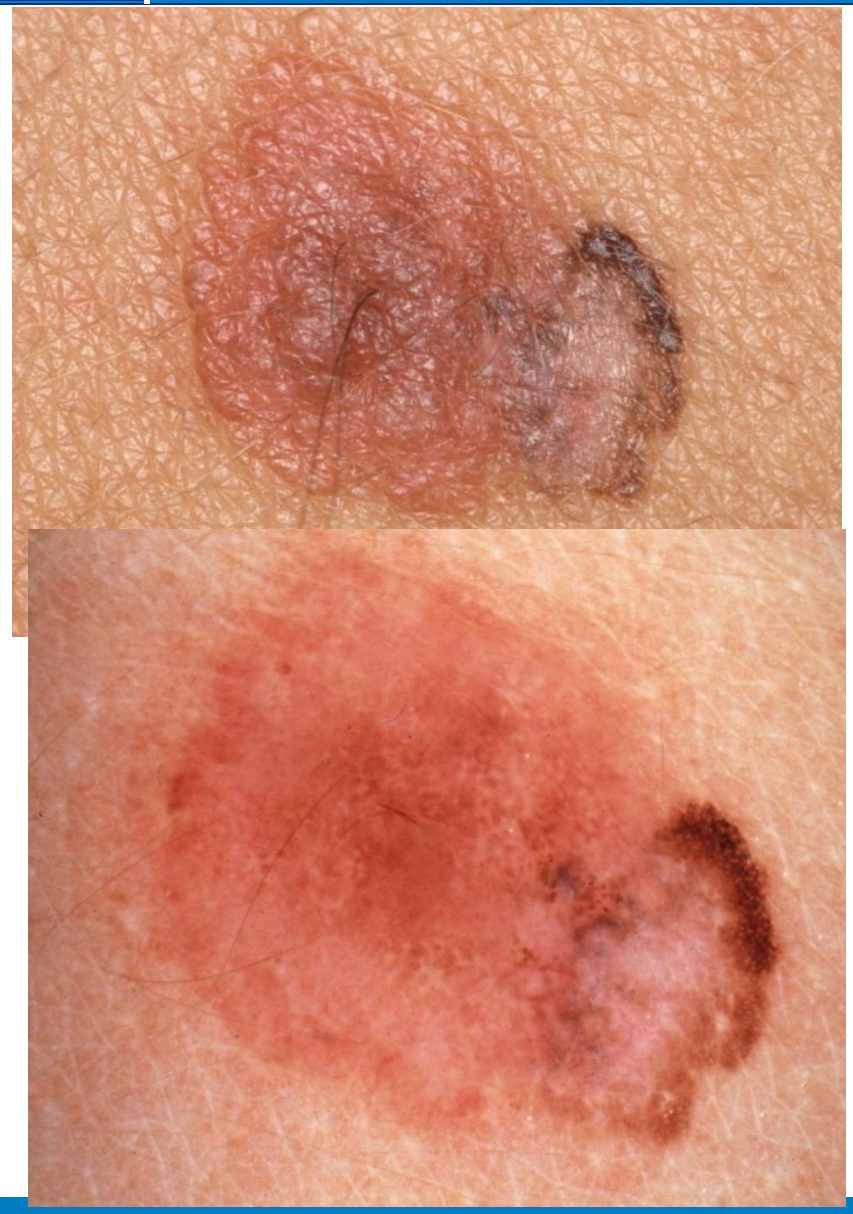
Clumps of melanin within the horny layer corresponding to black dots/globules

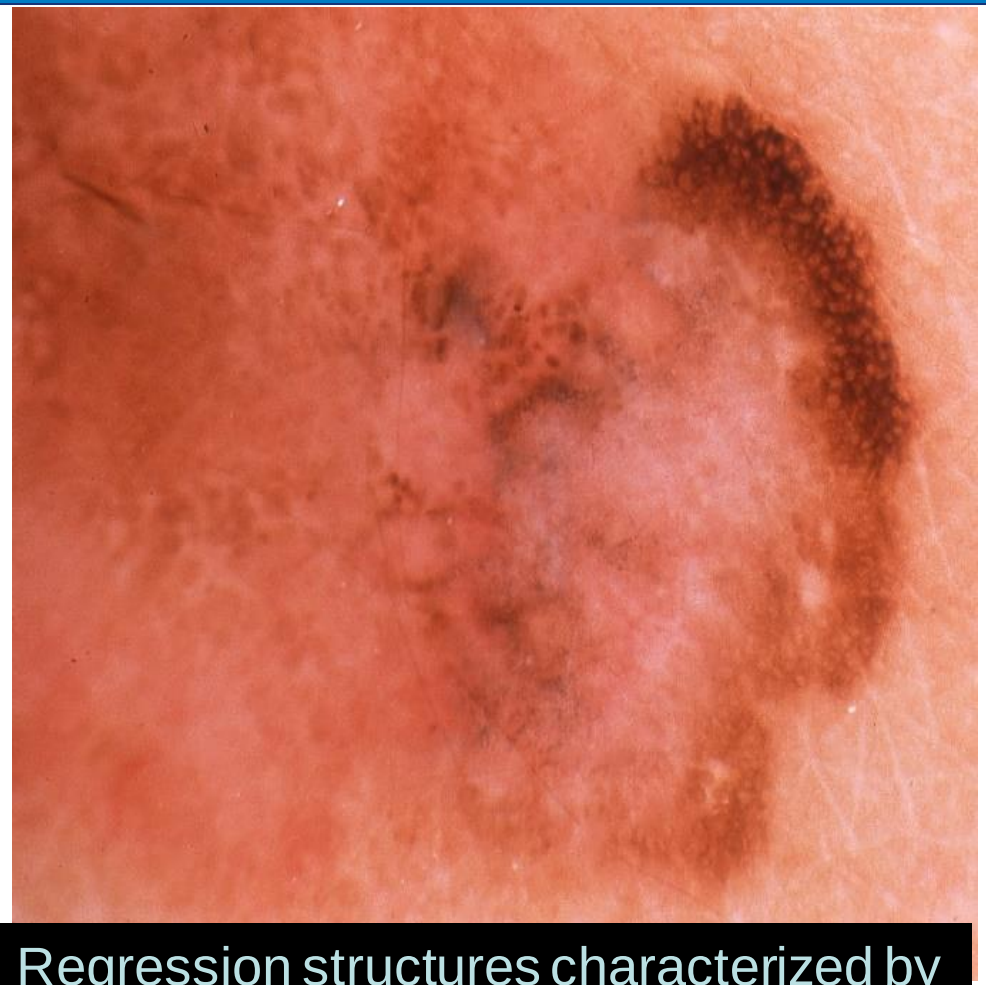


Brown globules within a papillomatous dermal nevus

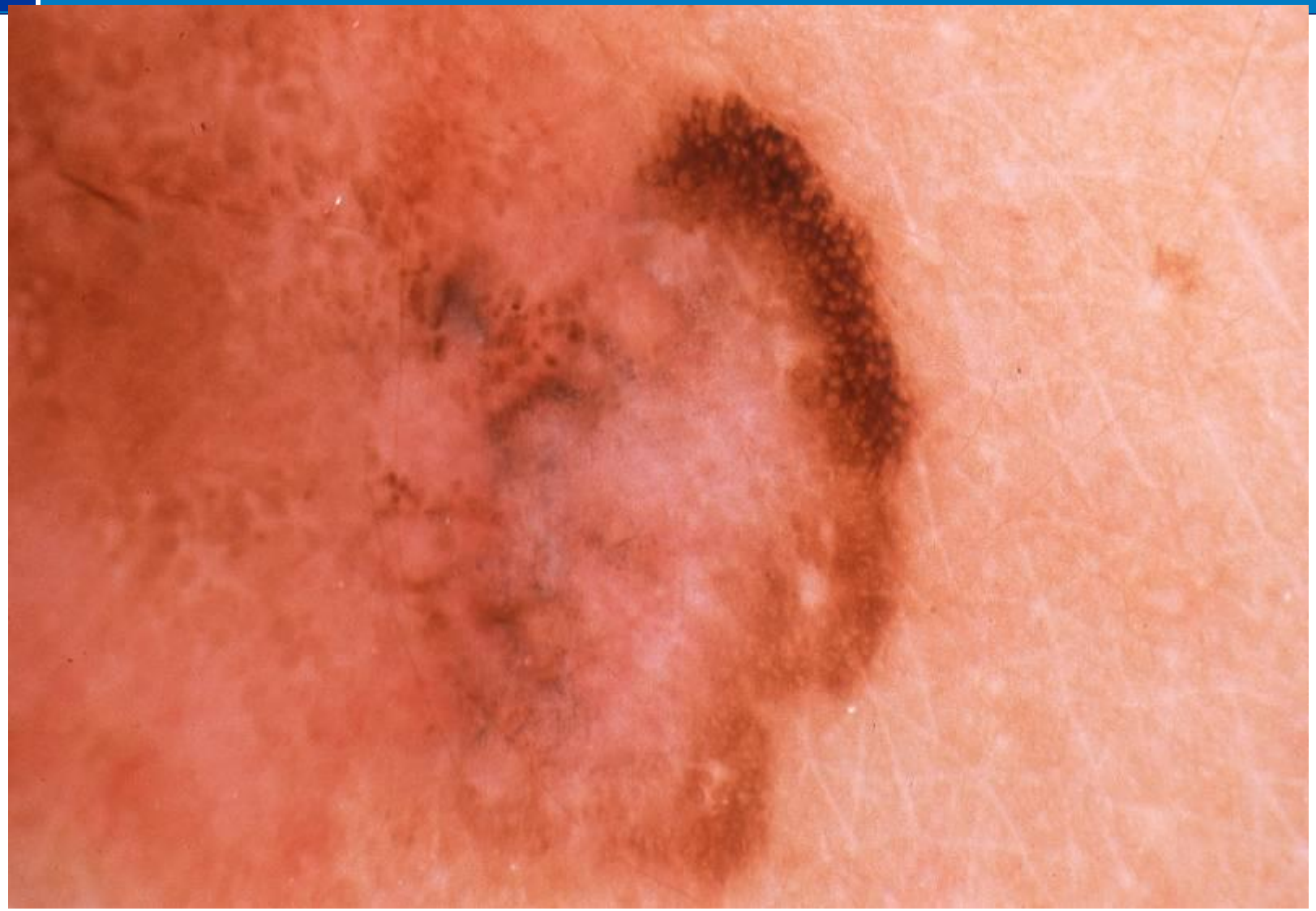


The underlying substrate of a given brown globule is a cap-like pigmentation of melanocytes in the papillary dermis

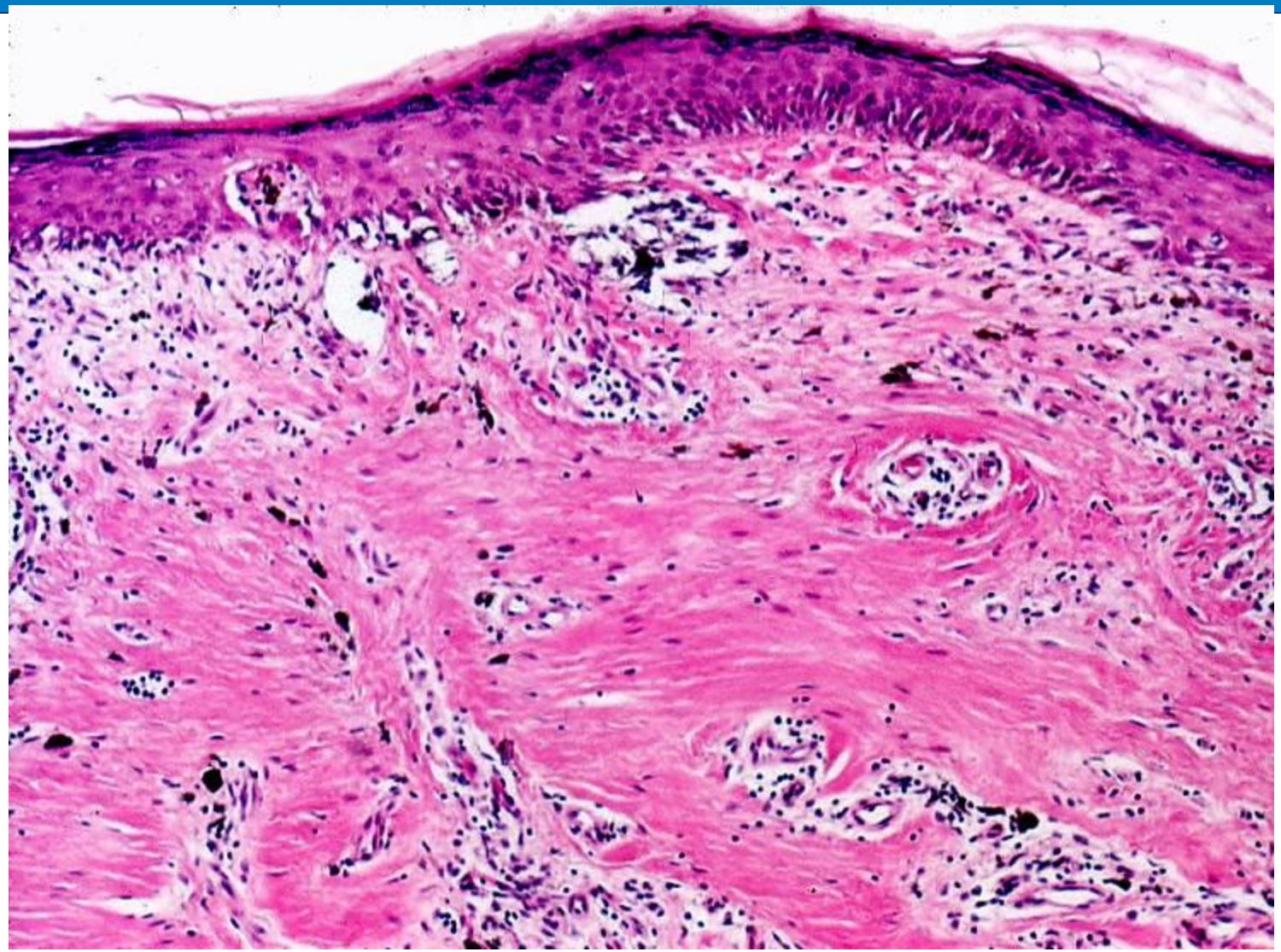




Regression structures characterized by white and blue areas in a regressive melanoma associated with a small congenital nevus



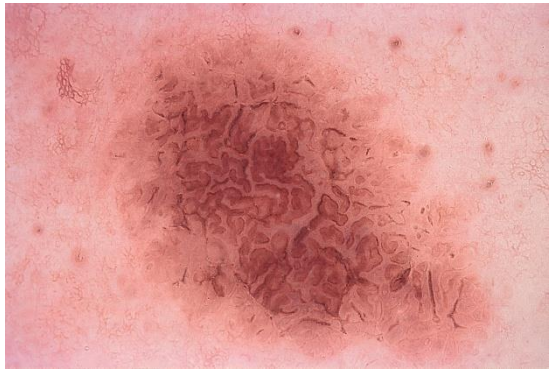
Melanoma with regression characterized by fibrosis and slight melanosis



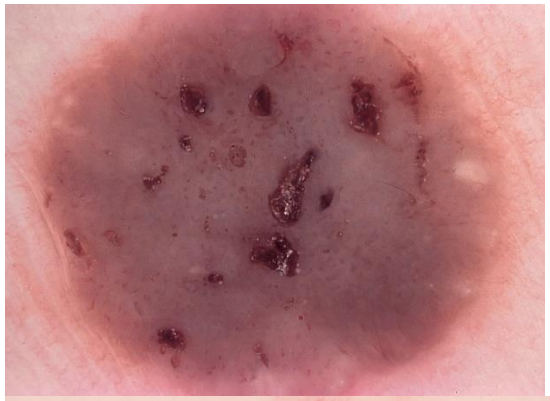
Papillary dermis thickened by fibrosis – note a few melanophages

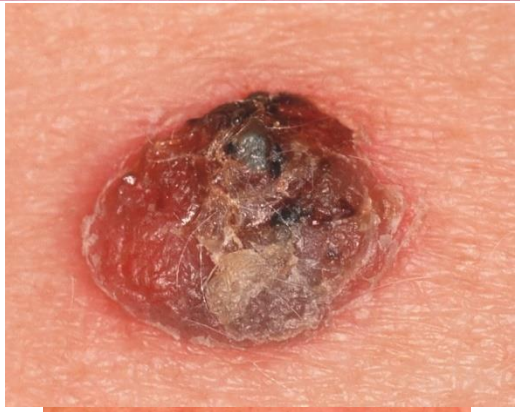
Seborrheic keratosis

Keratotic type

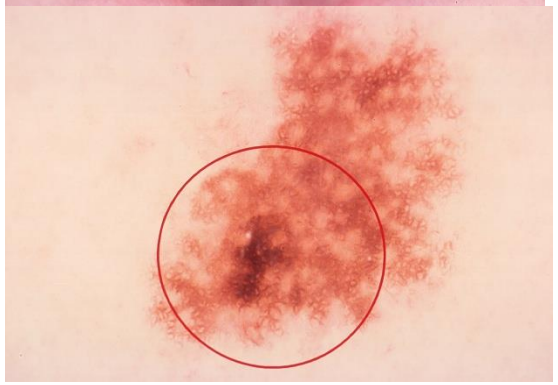


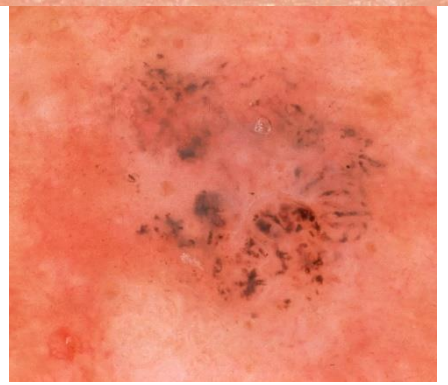
Acanthotic type

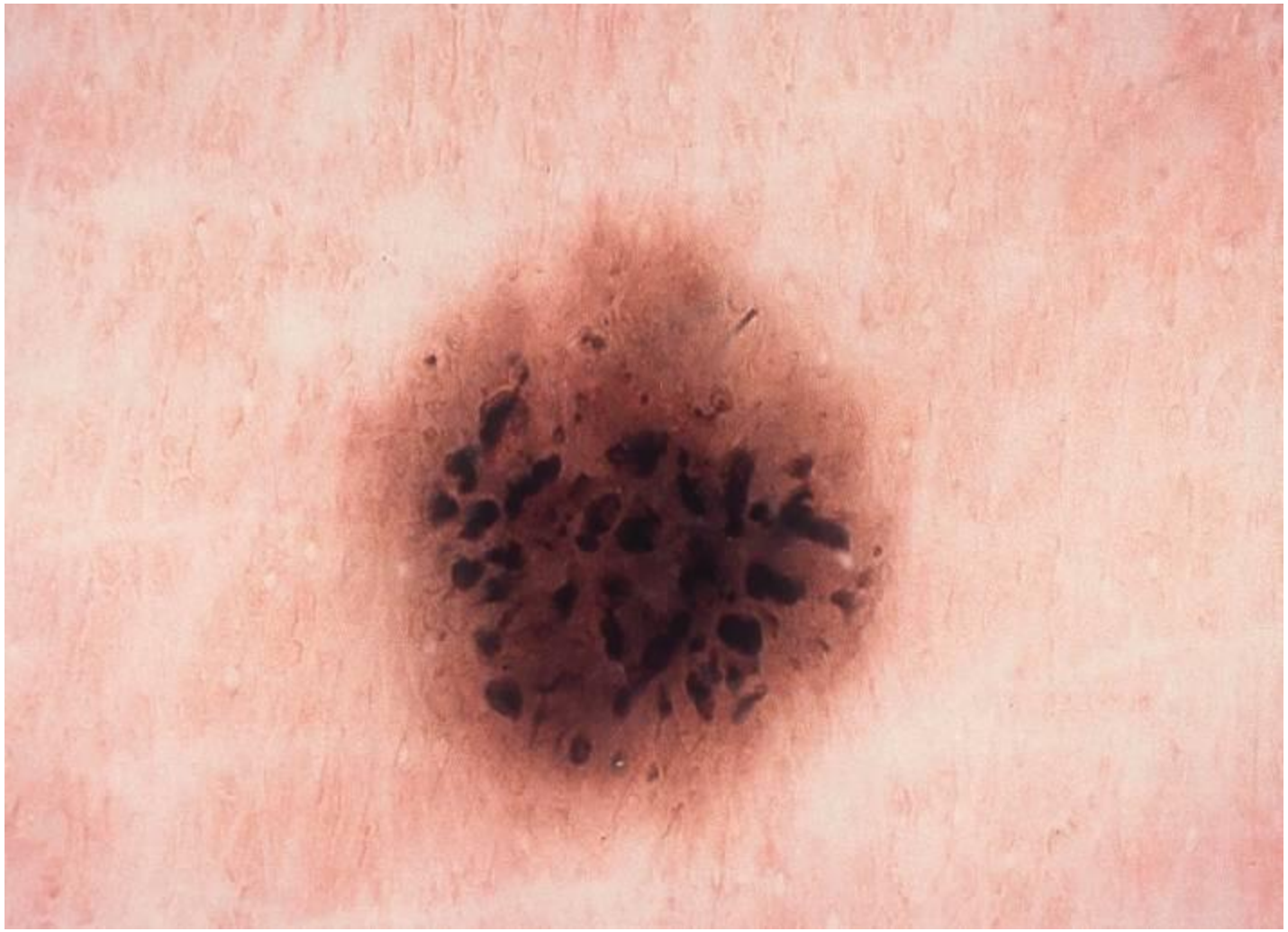




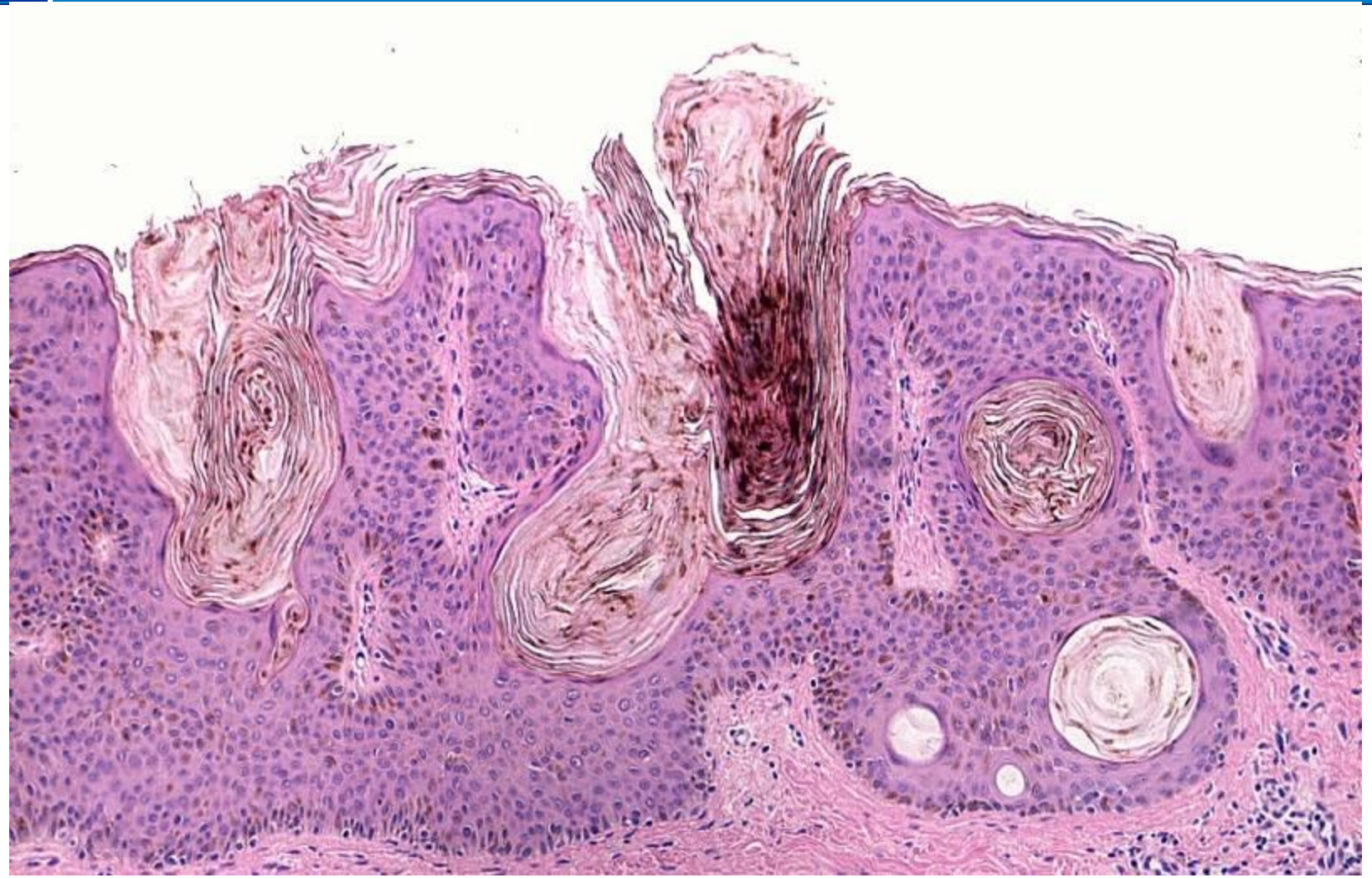
Reticulated (adenoid) type







Seborrheic keratosis characterized by numerous comedo-like openings and only few milia-like cysts

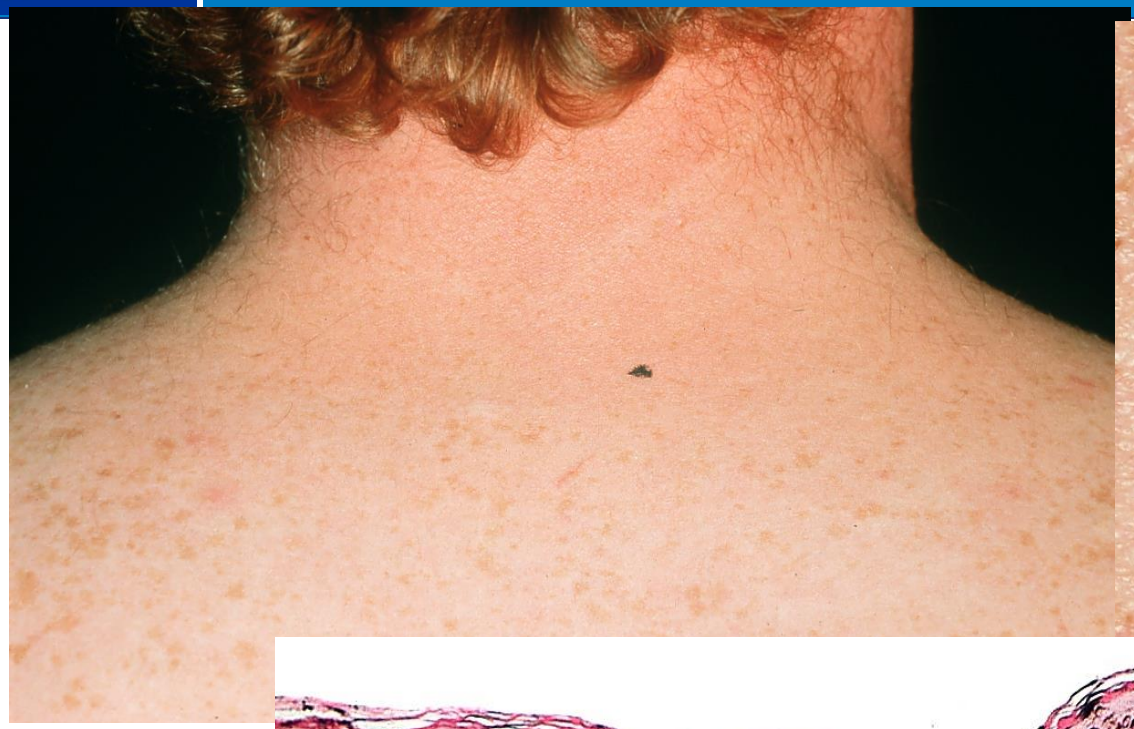


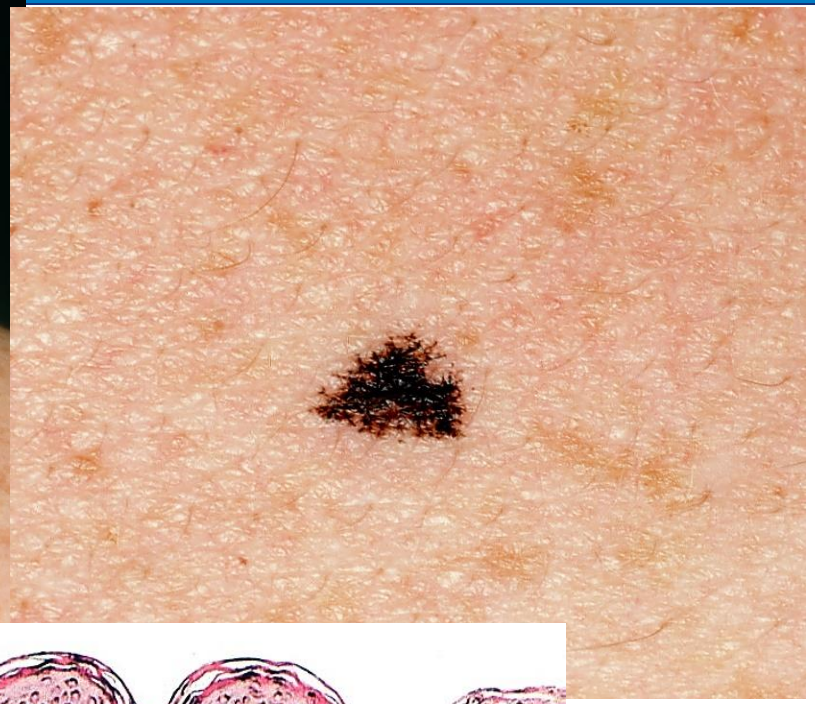
Epidermal invaginations filled with cornified material and clumps of melanin – note also a tiny horn pseudocyst

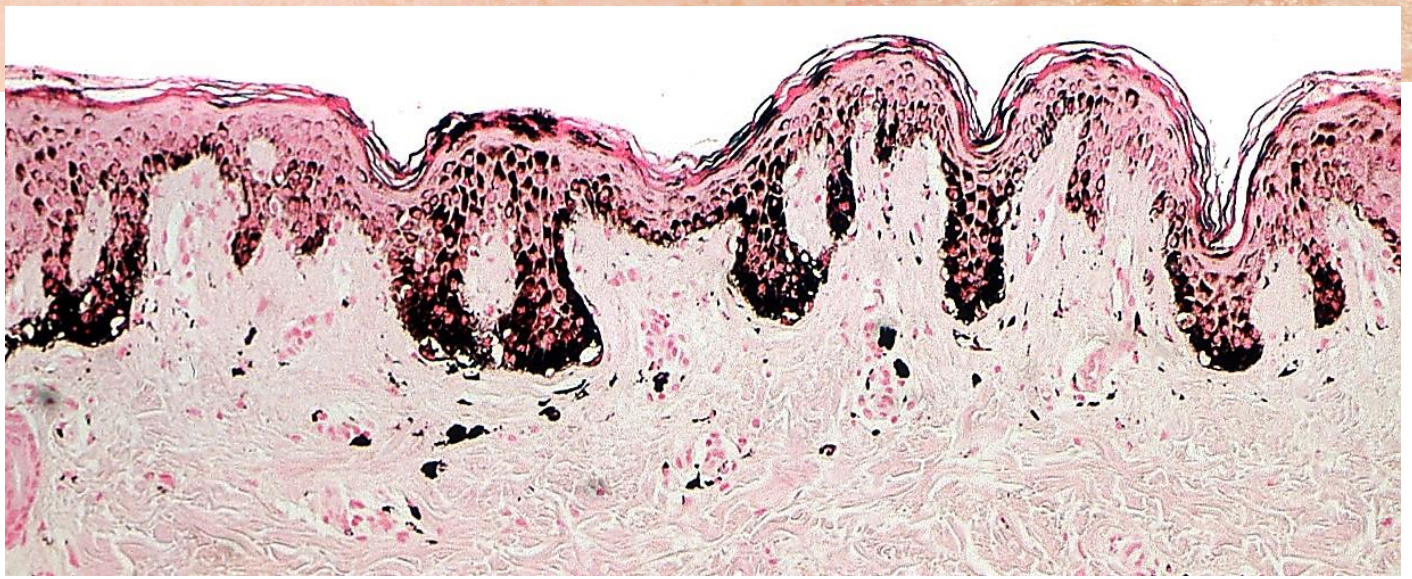
Dermoscopic-pathologic Correlation

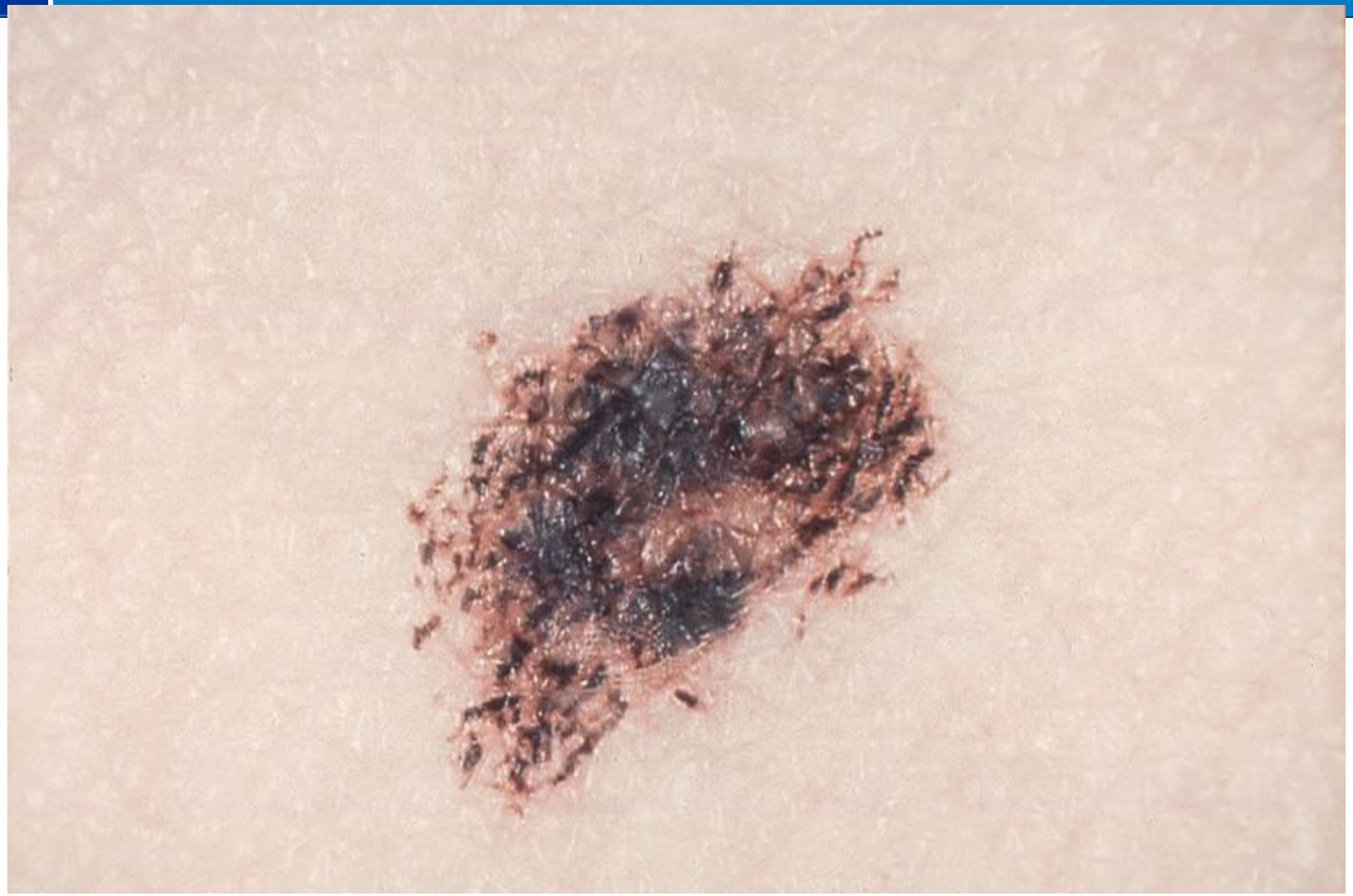
- Basic aspects
- Histopathologic correlates of dermoscopic features

➢ Case series



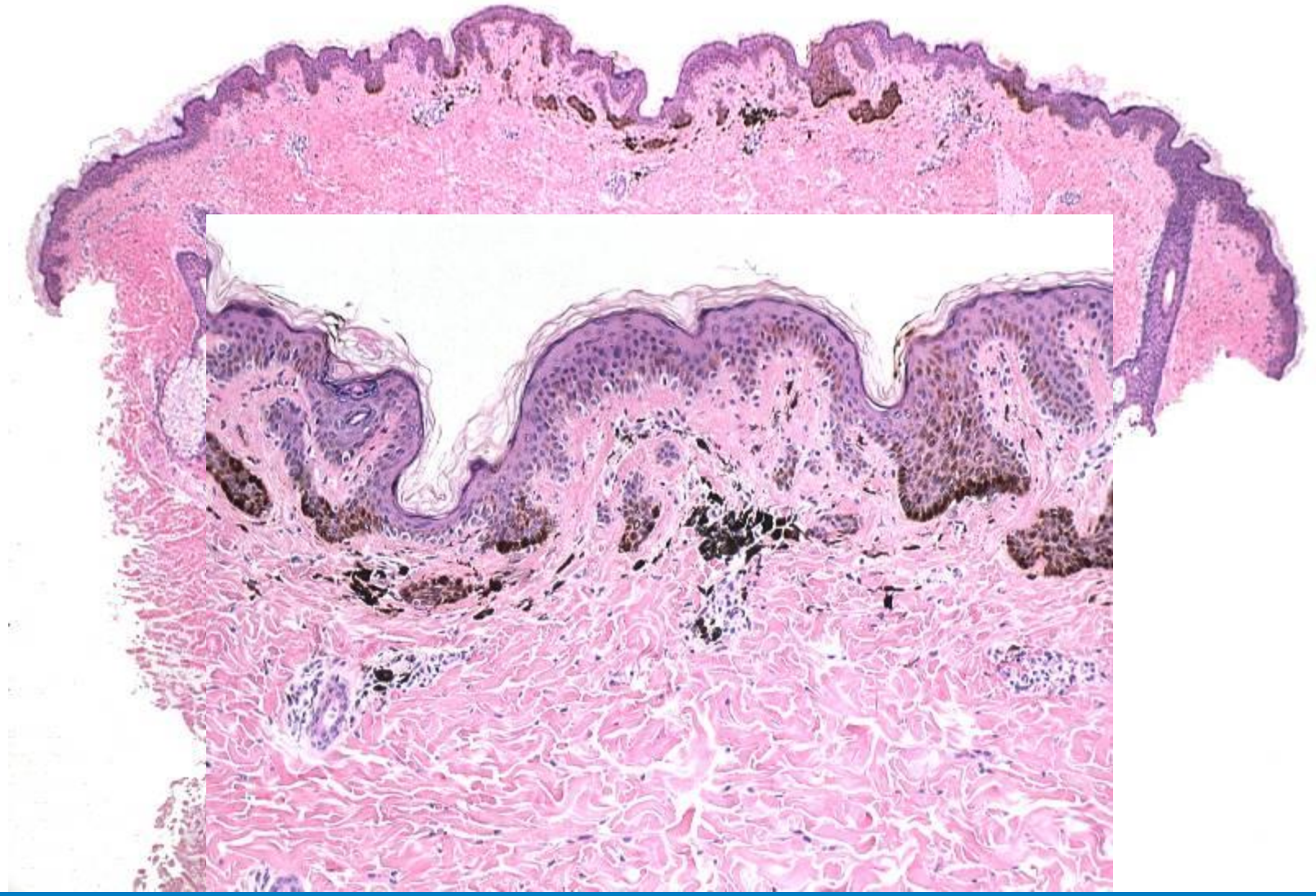


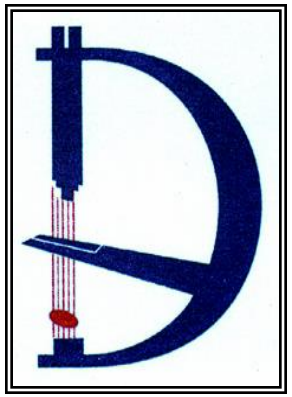




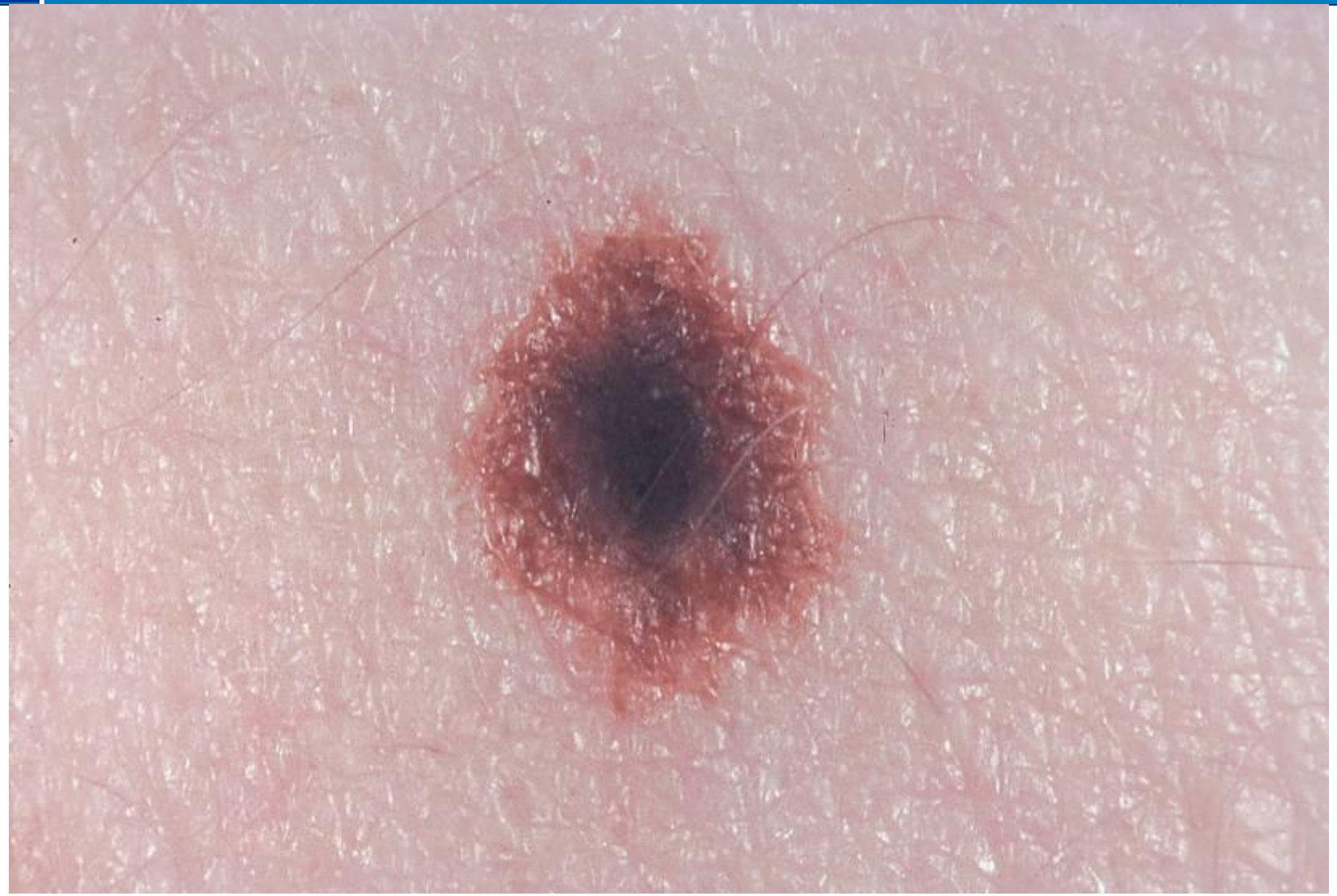
Clinical image of a pigmented lesion situated on the back

Dermoscopic image – note the irregular streaks

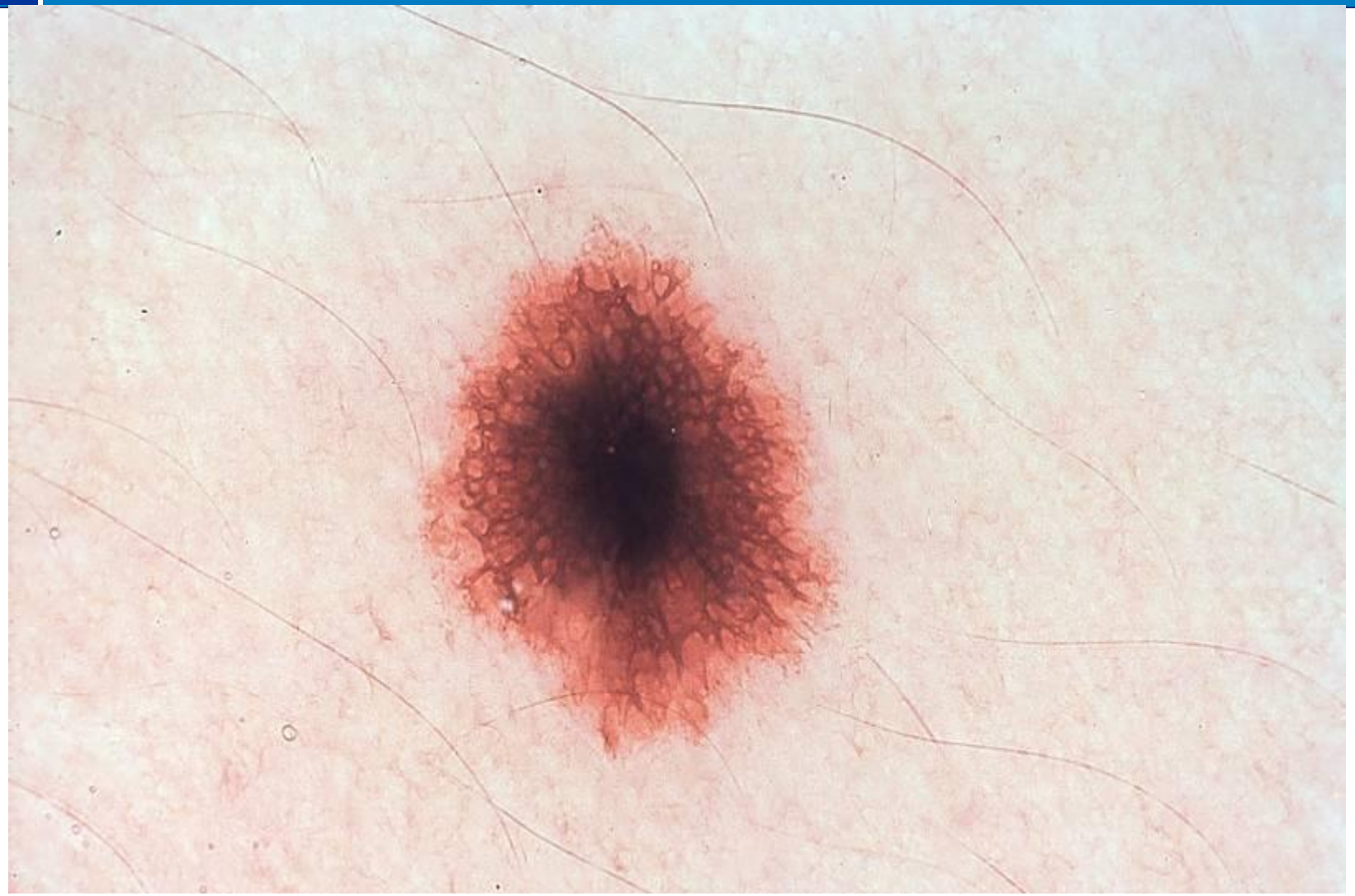




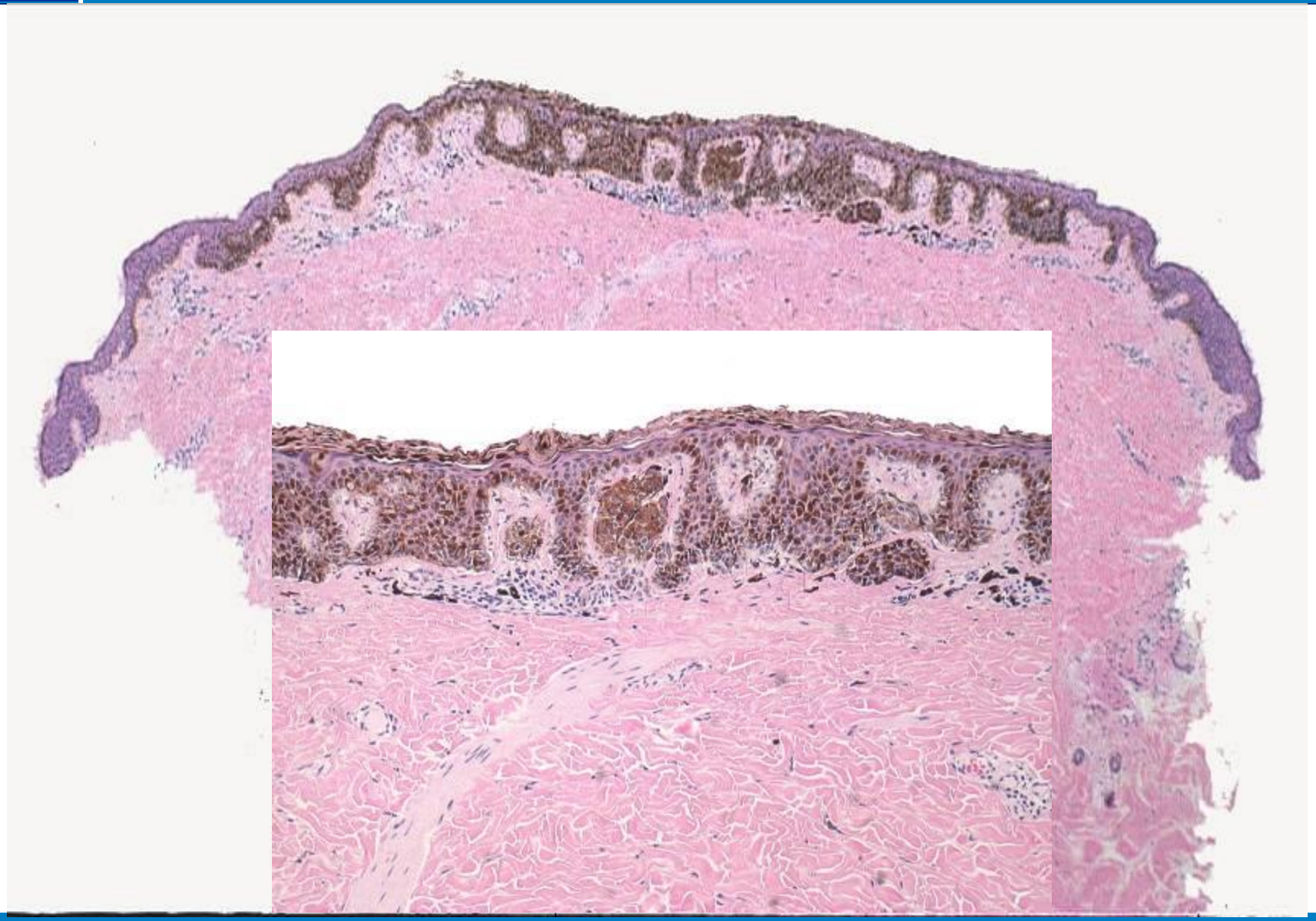
Reticulated lentigo
„ink spot“ lentigo

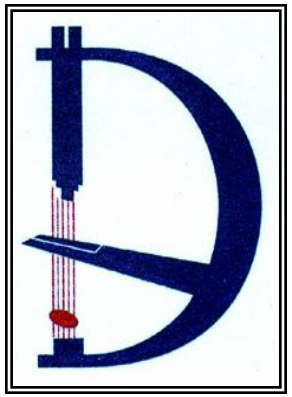


Clinical image of a pigmented lesion situated on the back

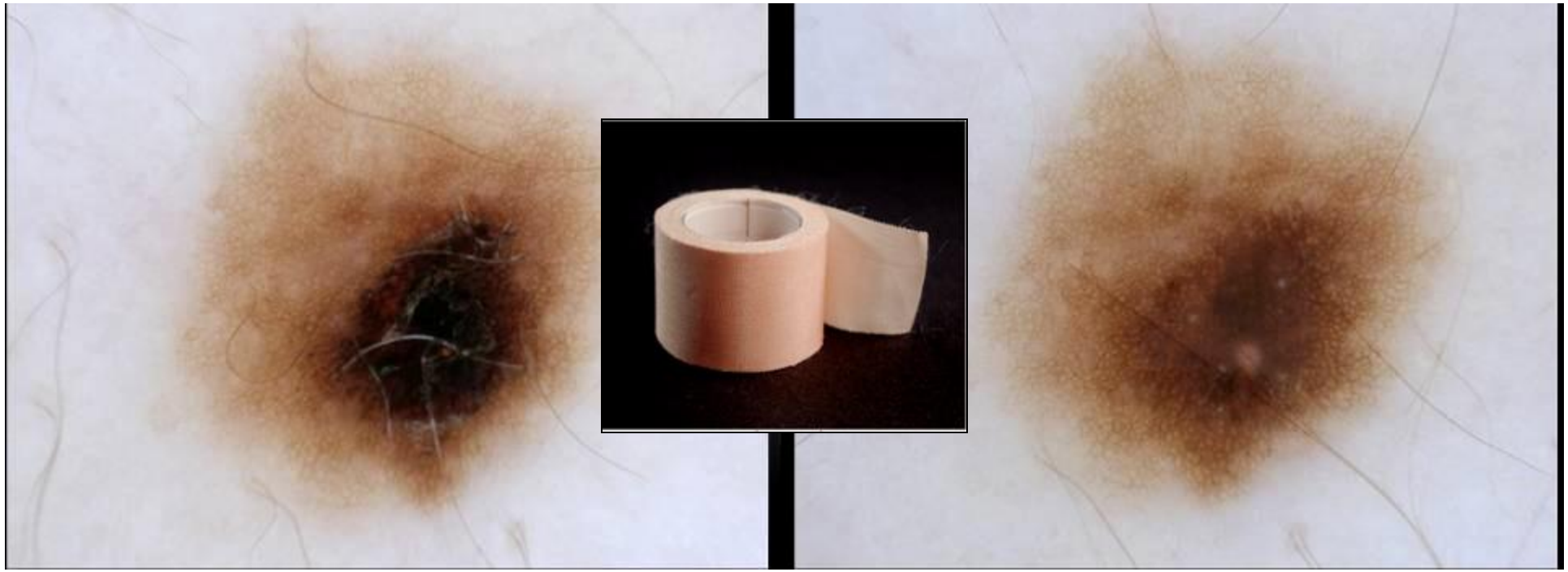


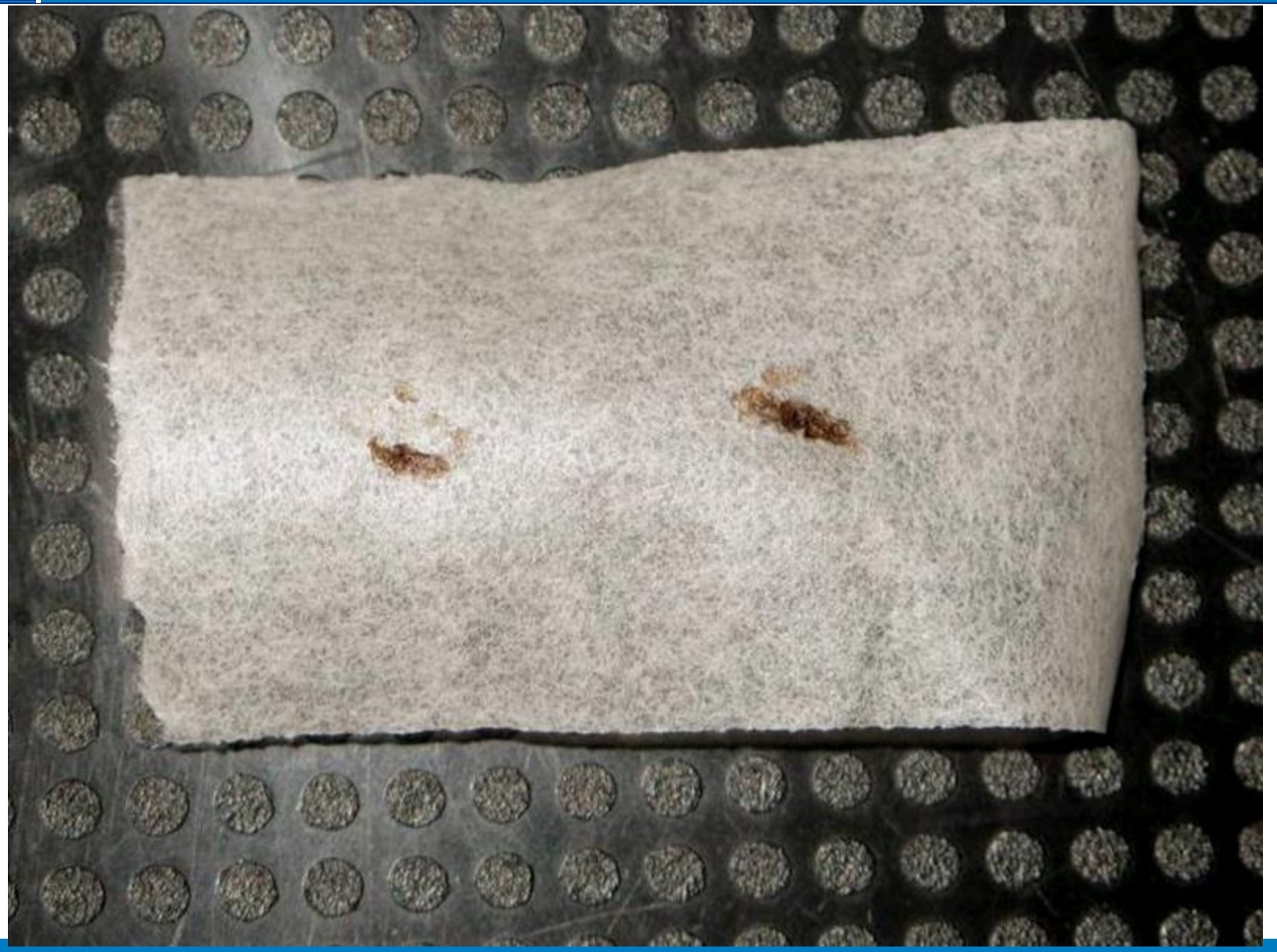
Dermoscopic image – note the black lamella in the center

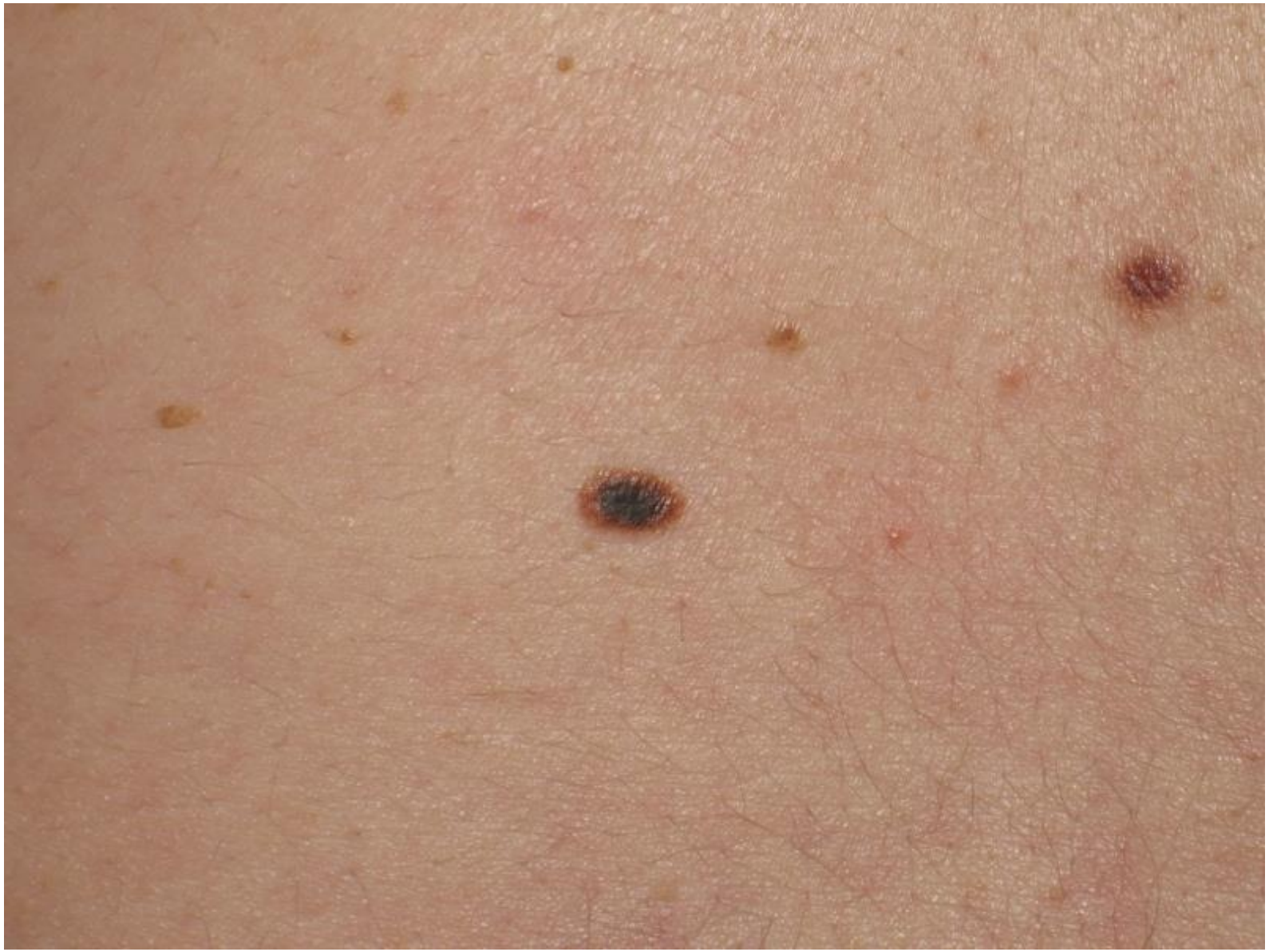


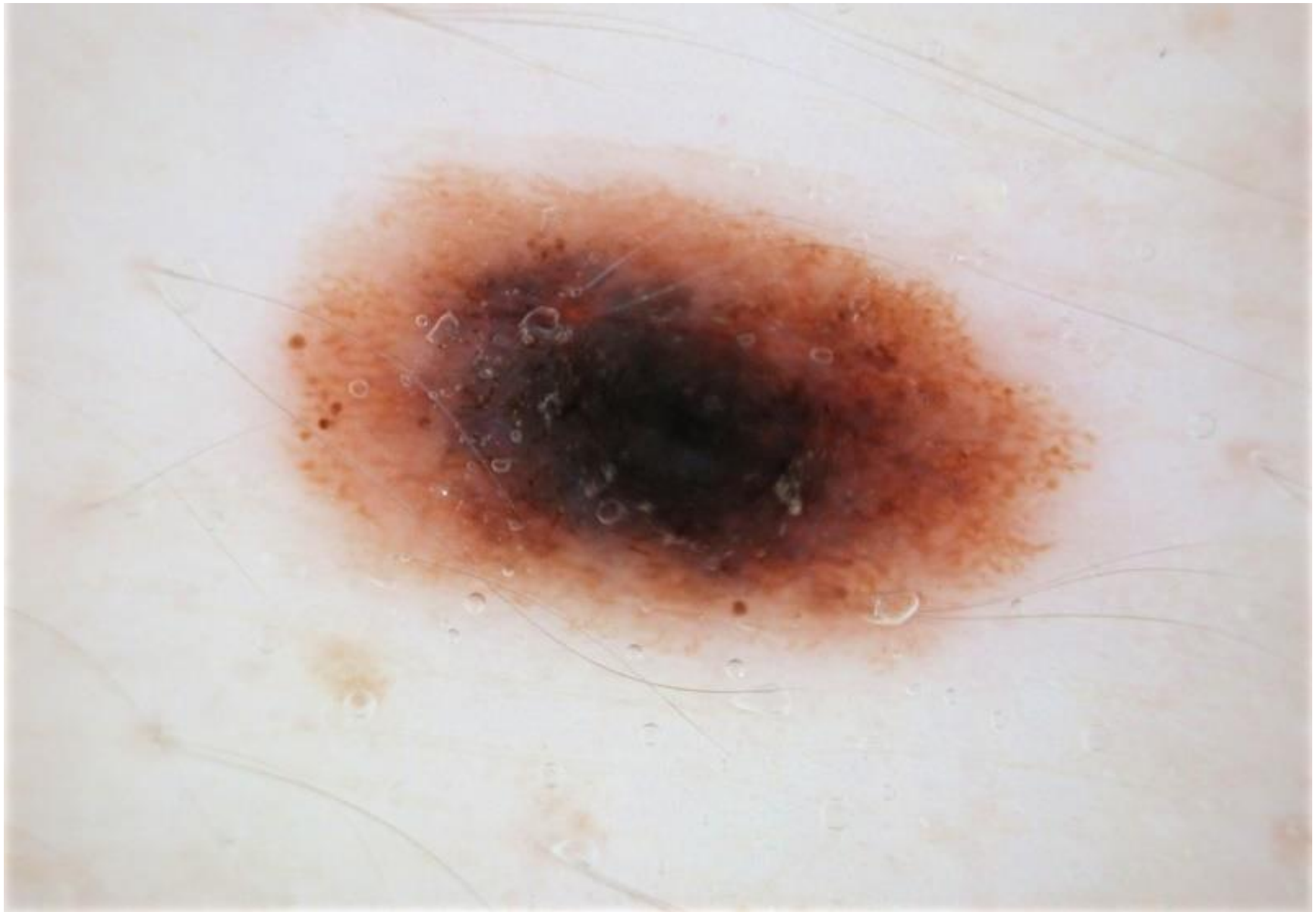


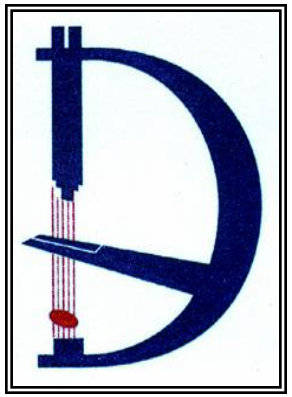
Clark nevus with central hyperpigmentation (black nevus – hypermelanotic nevus)











Superficial melanoma simulating a nevus with central hyperpigmentation (black nevus – hypermelanotic nevus)

REVIEW ARTICLE DOI 10.1111/j.1365-2133.2007.07972.x

Proposal of a new classification system for melanocytic naevi

G. Argenziano, I. Zalaudek,* G. Ferrara,† R. Hofmann-Wellenhof* and H.P. Soyer*

Department of Dermatology, Second University of Naples, Via S. Pansini 5, 80131 Naples, Italy
*Department of Dermatology, Medical University of Graz, Graz, Austria
†Pathologic Anatomy Service, Gaetano Rummo General Hospital, Benevento, Italy

Summary

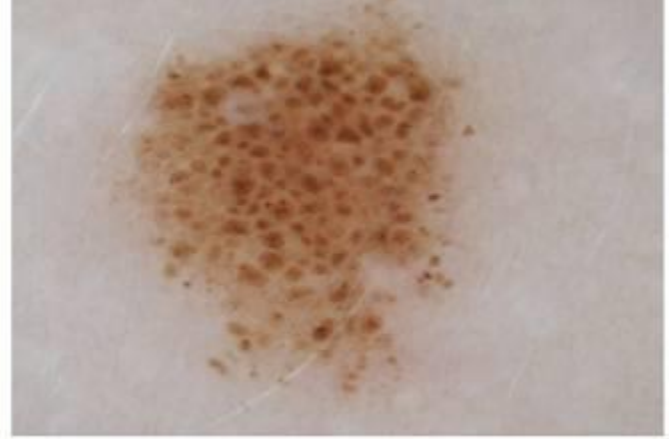
The lack of consensus among clinicians and pathologists due to the mixture of clinical and histopathological features used to define the various melanocytic naevi underscores the need of a better classification system for these benign lesions. We describe a dermoscopic classification system for melanocytic naevi that is directed to clinicians dealing with the early diagnosis of melanoma, as well to pathologists, in order to promote better communication between these different specialists.

Correspondence
Giuseppe Argenziano.
E-mail: g.argenziano@gmail.com

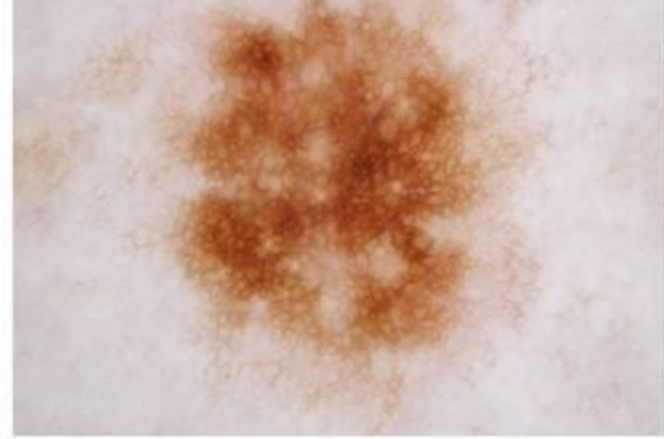
Accepted for publication
14 February 2007

Key words
classification, dermoscopy, diagnosis, melanocytic naevi, melanoma

Cobblestone pattern



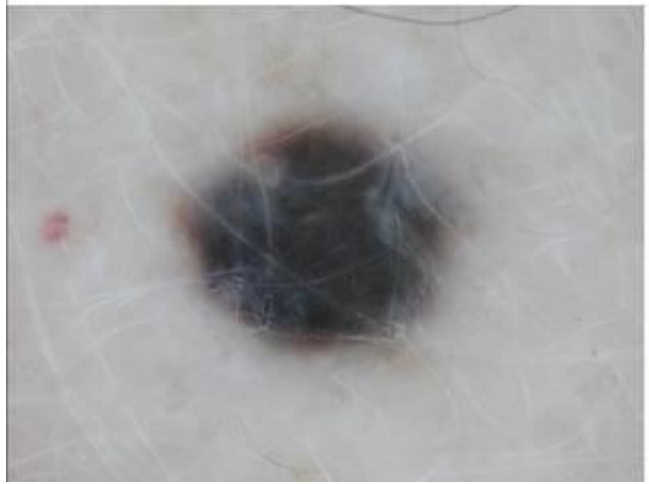
Globular pattern



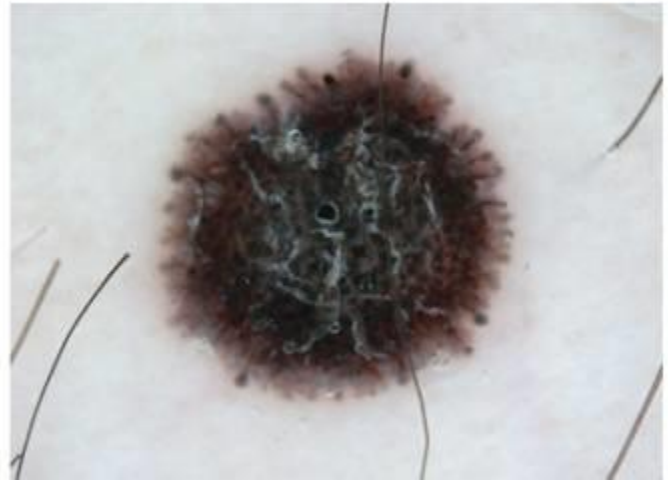
Reticular pattern

Morphology

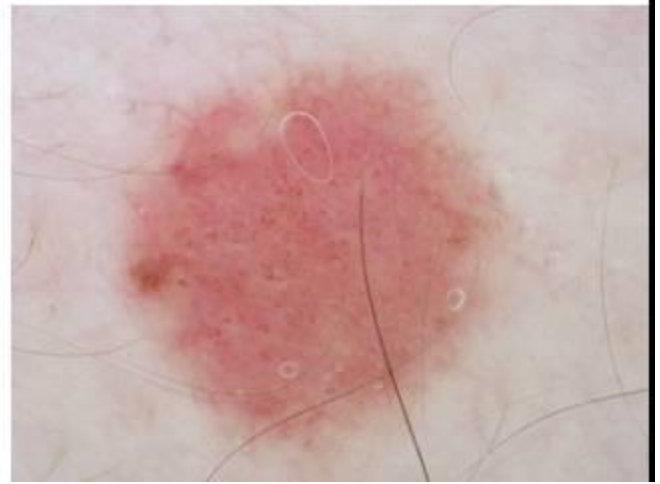
Homogeneous blue pattern

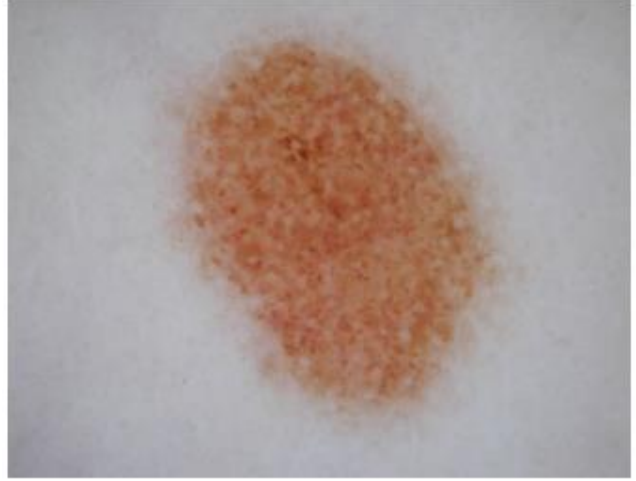


Starburst pattern

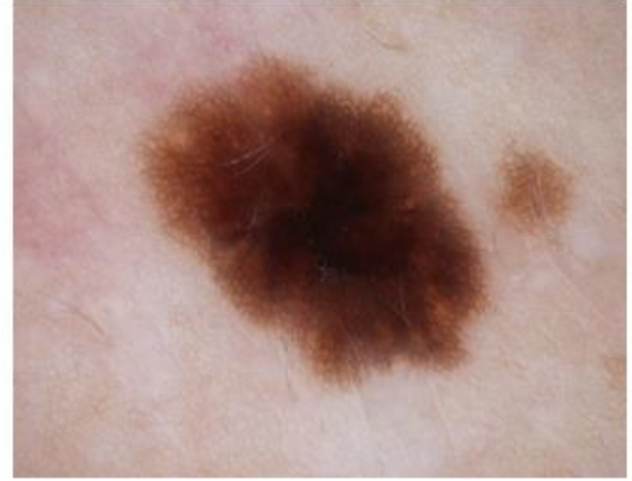


Not specific pattern

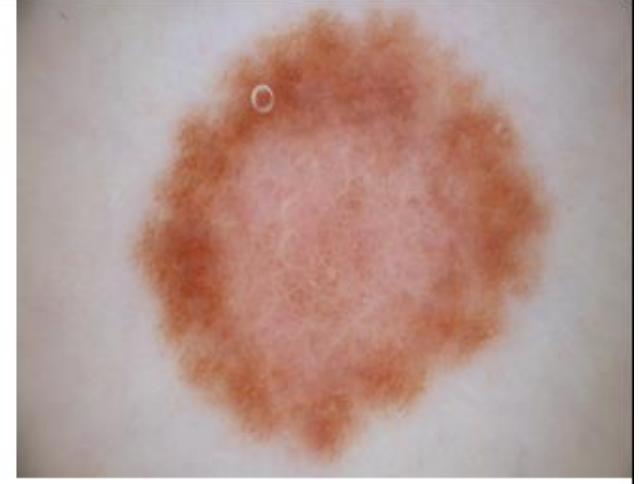




Uniformly pigmented



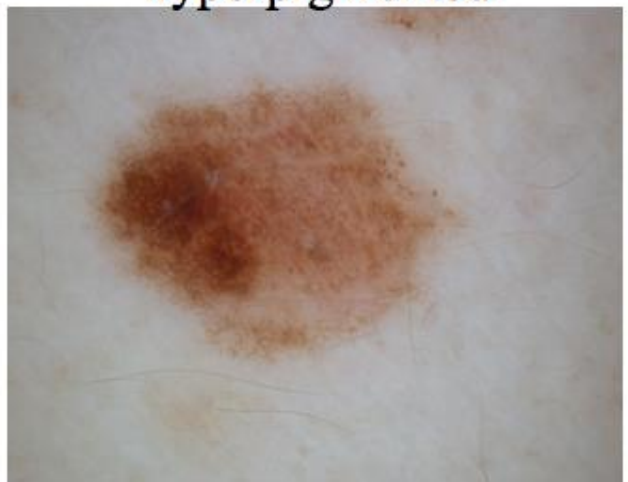
Central hyperpigmented



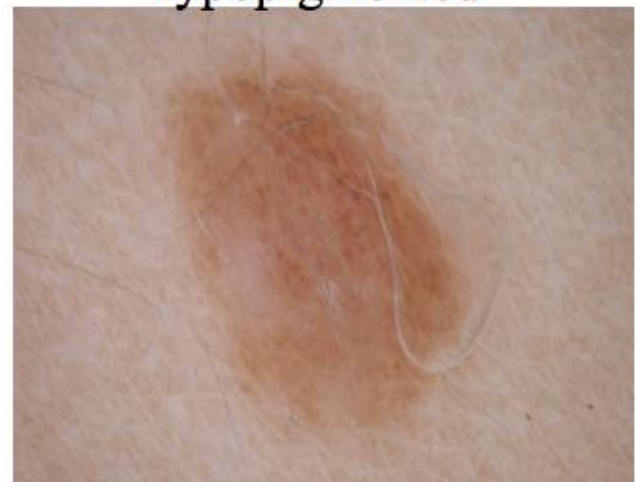
Central hypopigmented

Pigment distribution

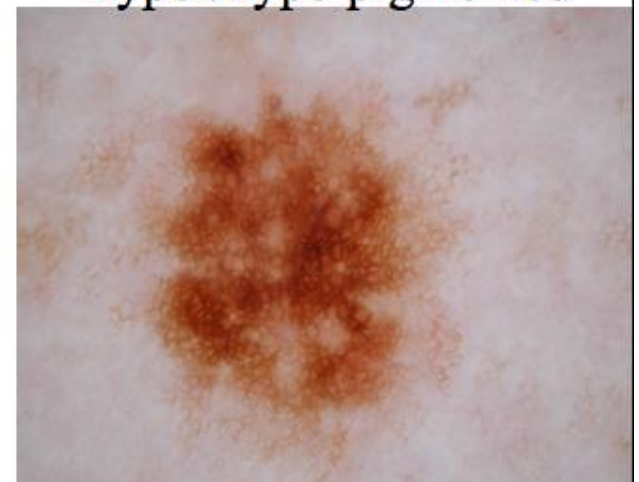
Eccentric hyperpigmented



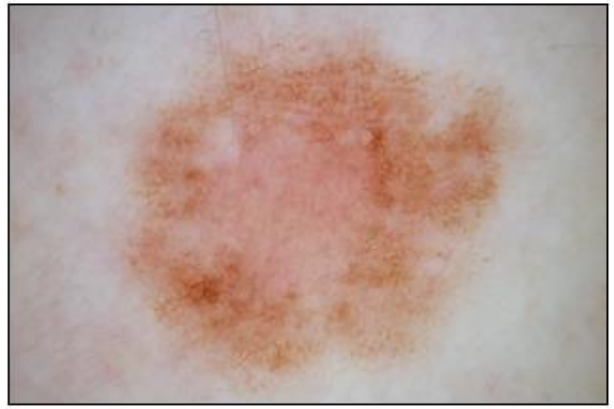
Eccentric hypopigmented



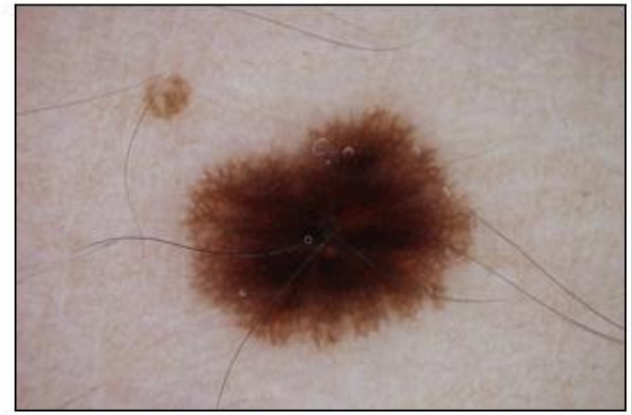
Multifocal hyper/hypo pigmented



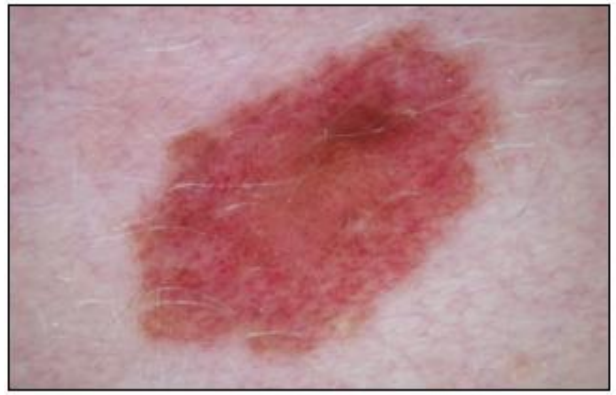
Color



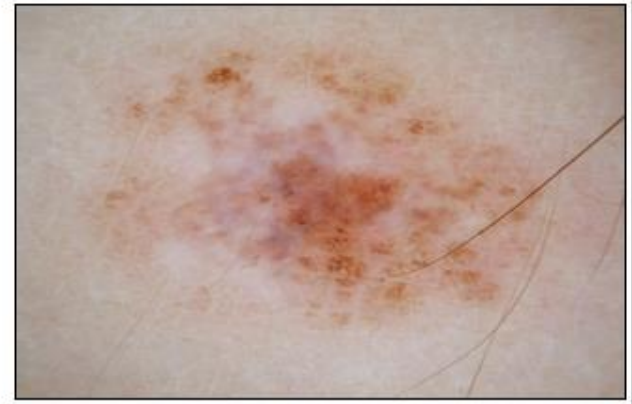
Light brown



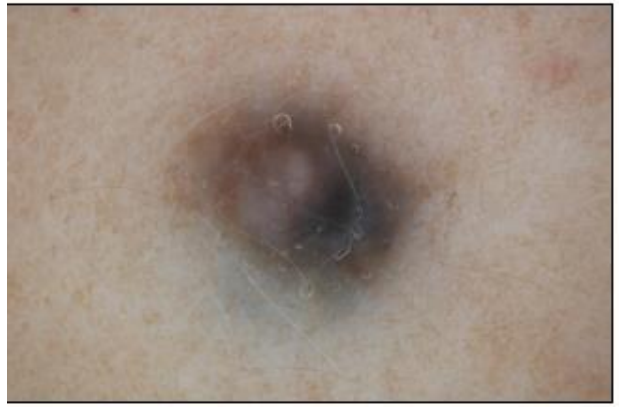
Dark brown



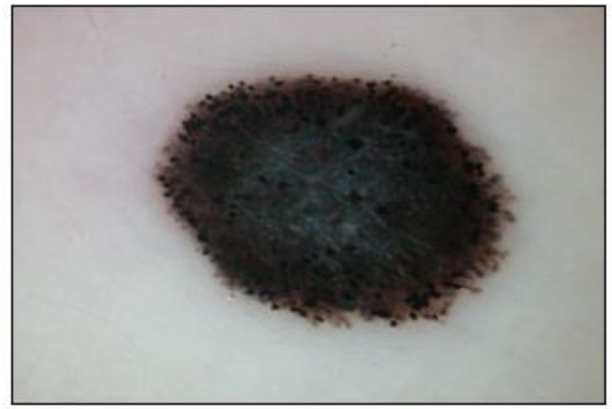
Red



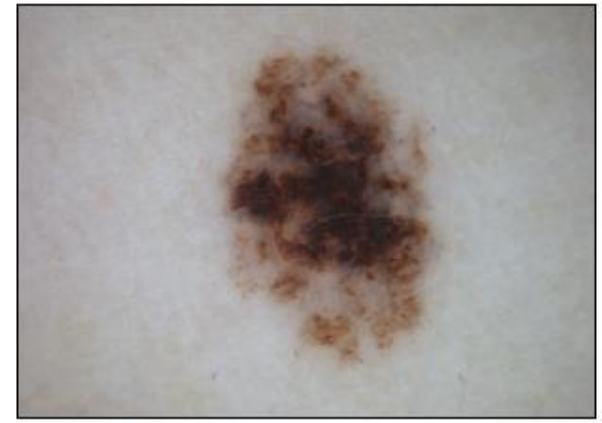
White



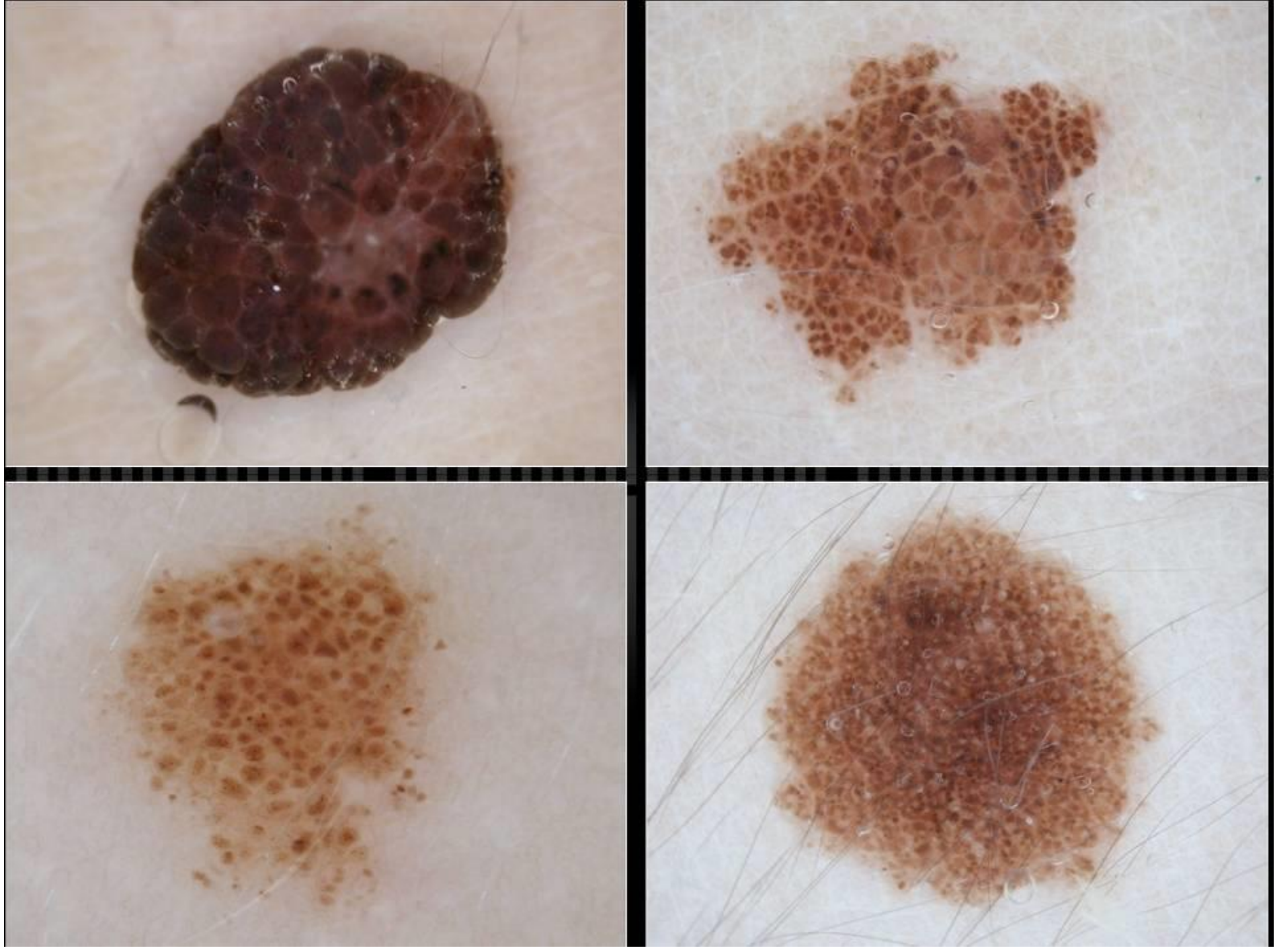
Blue

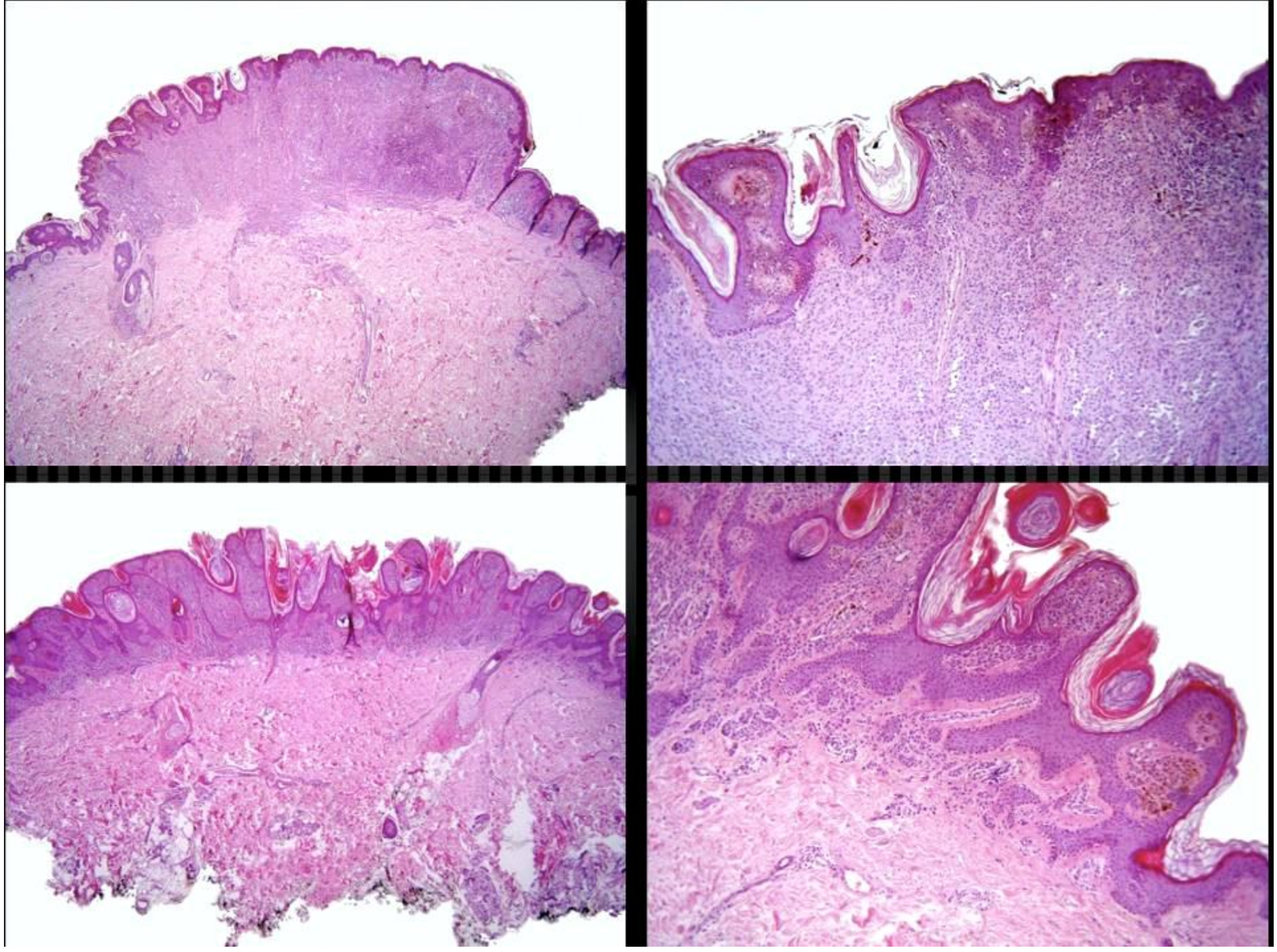


Black



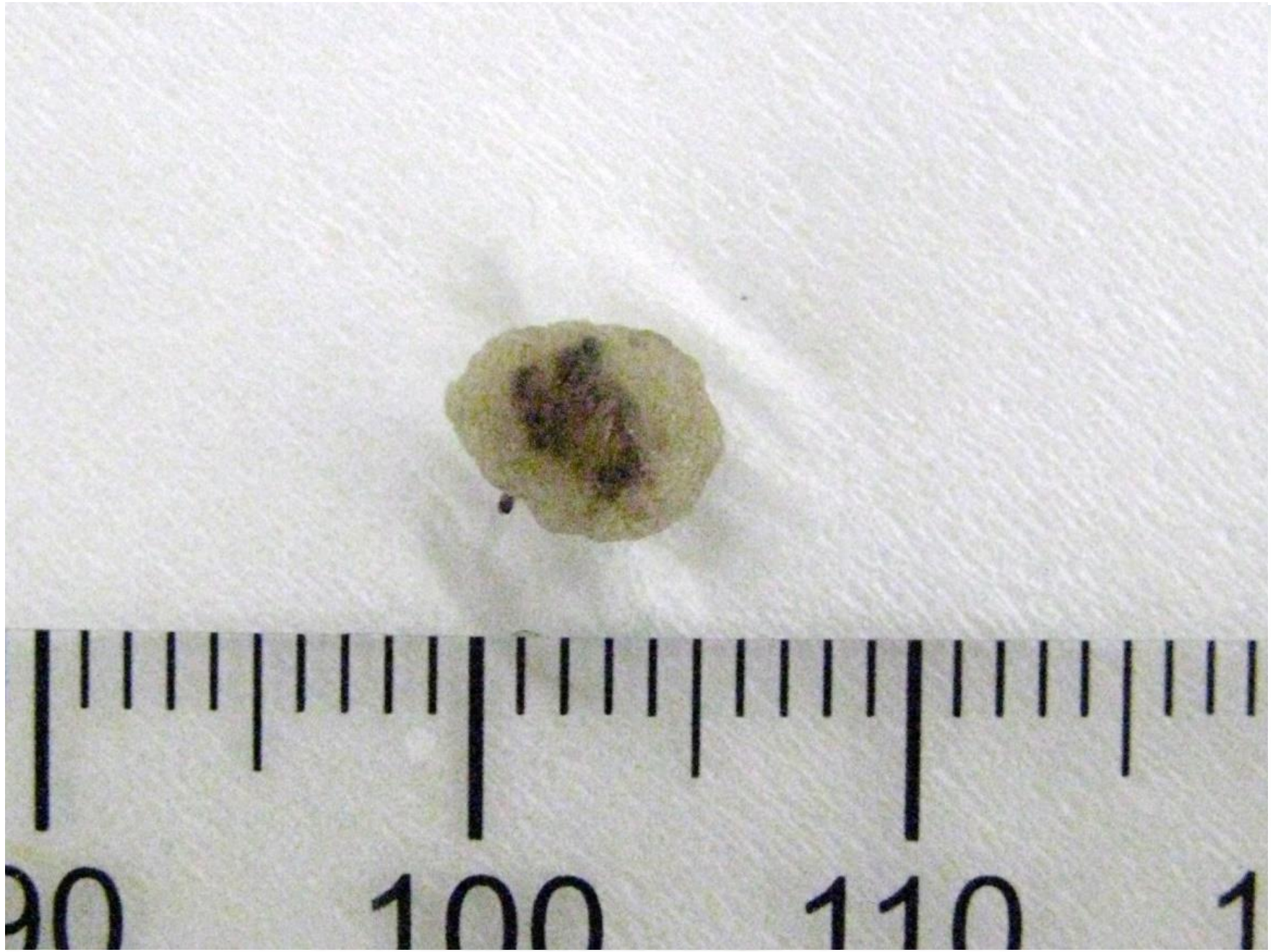
Gray

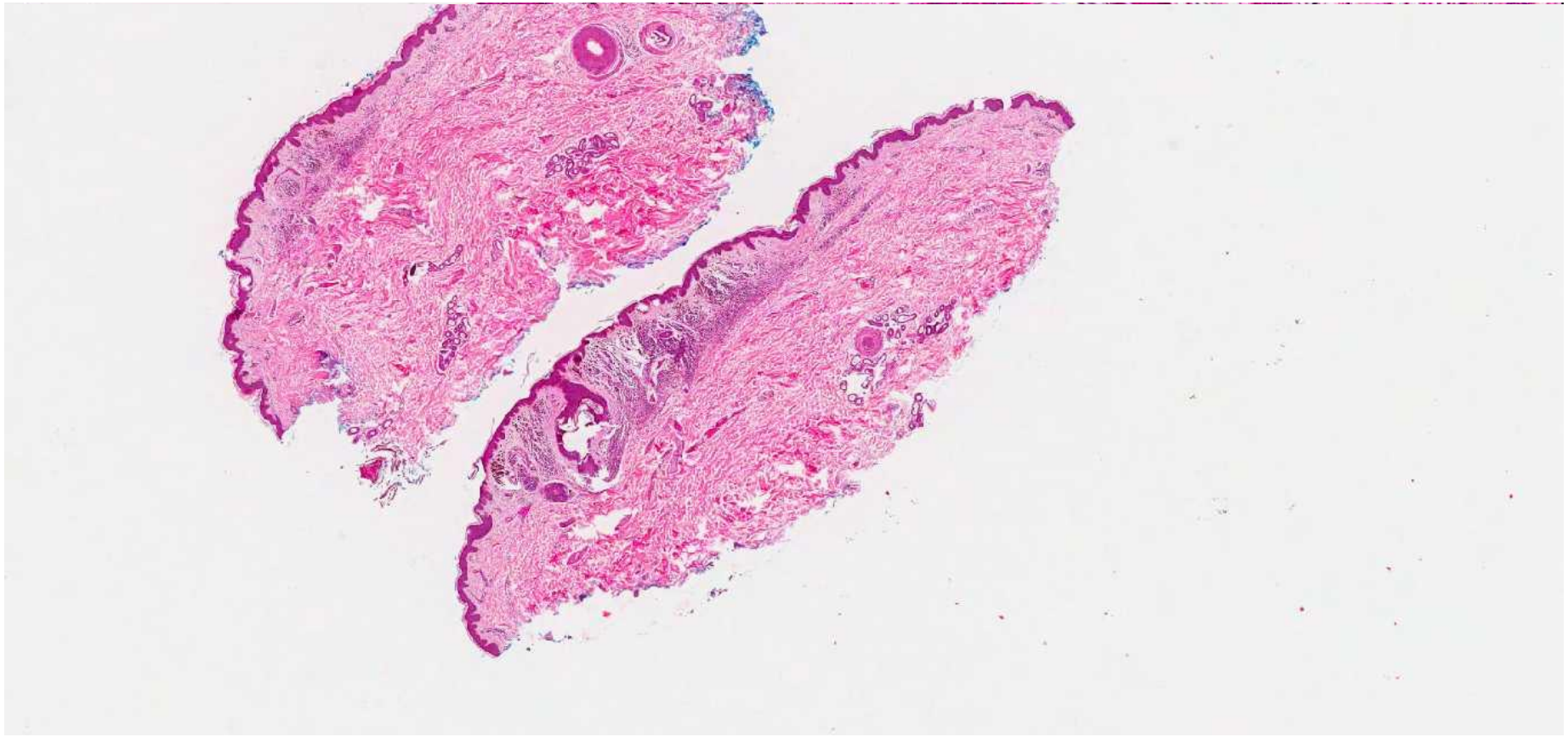


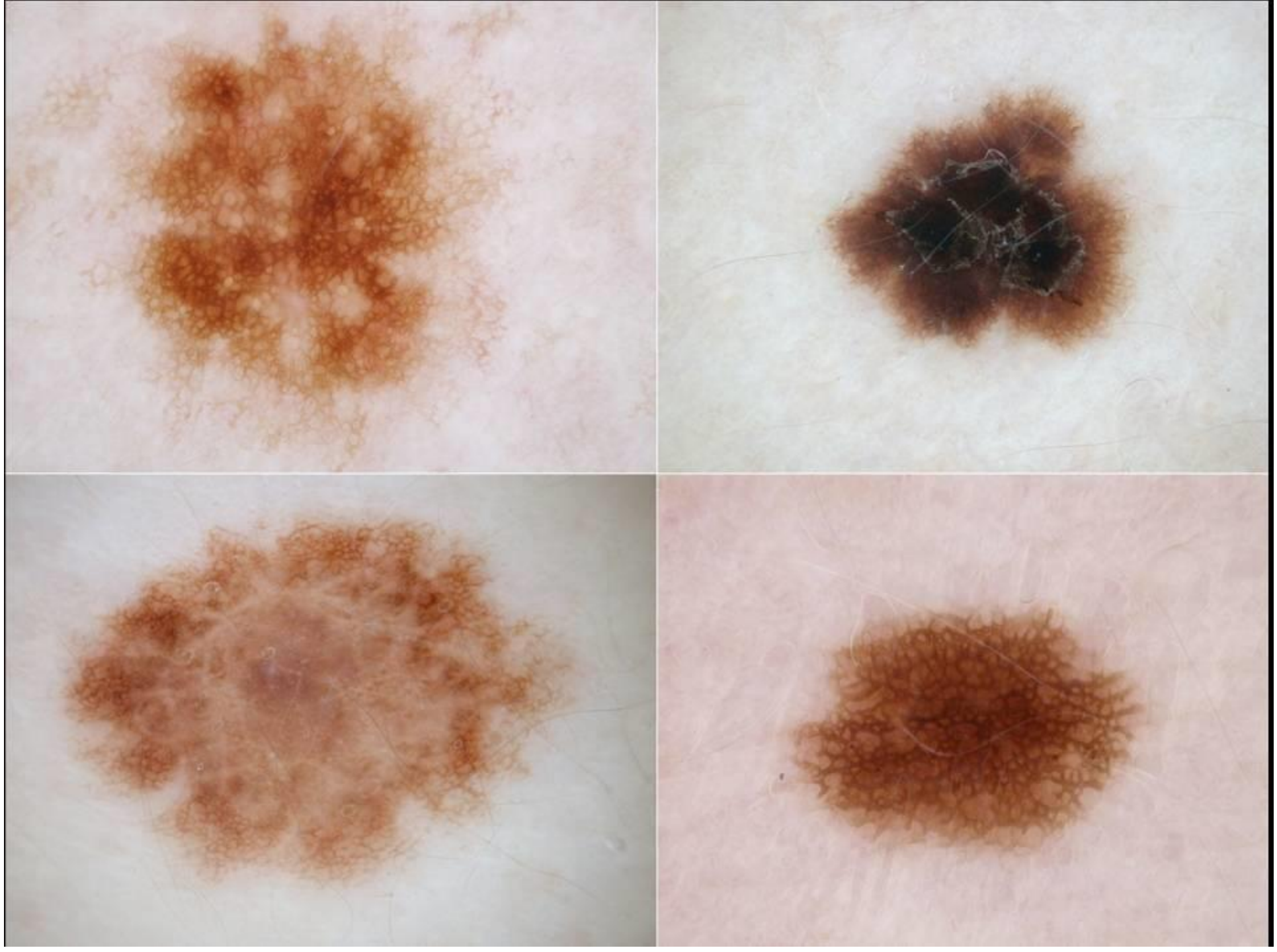


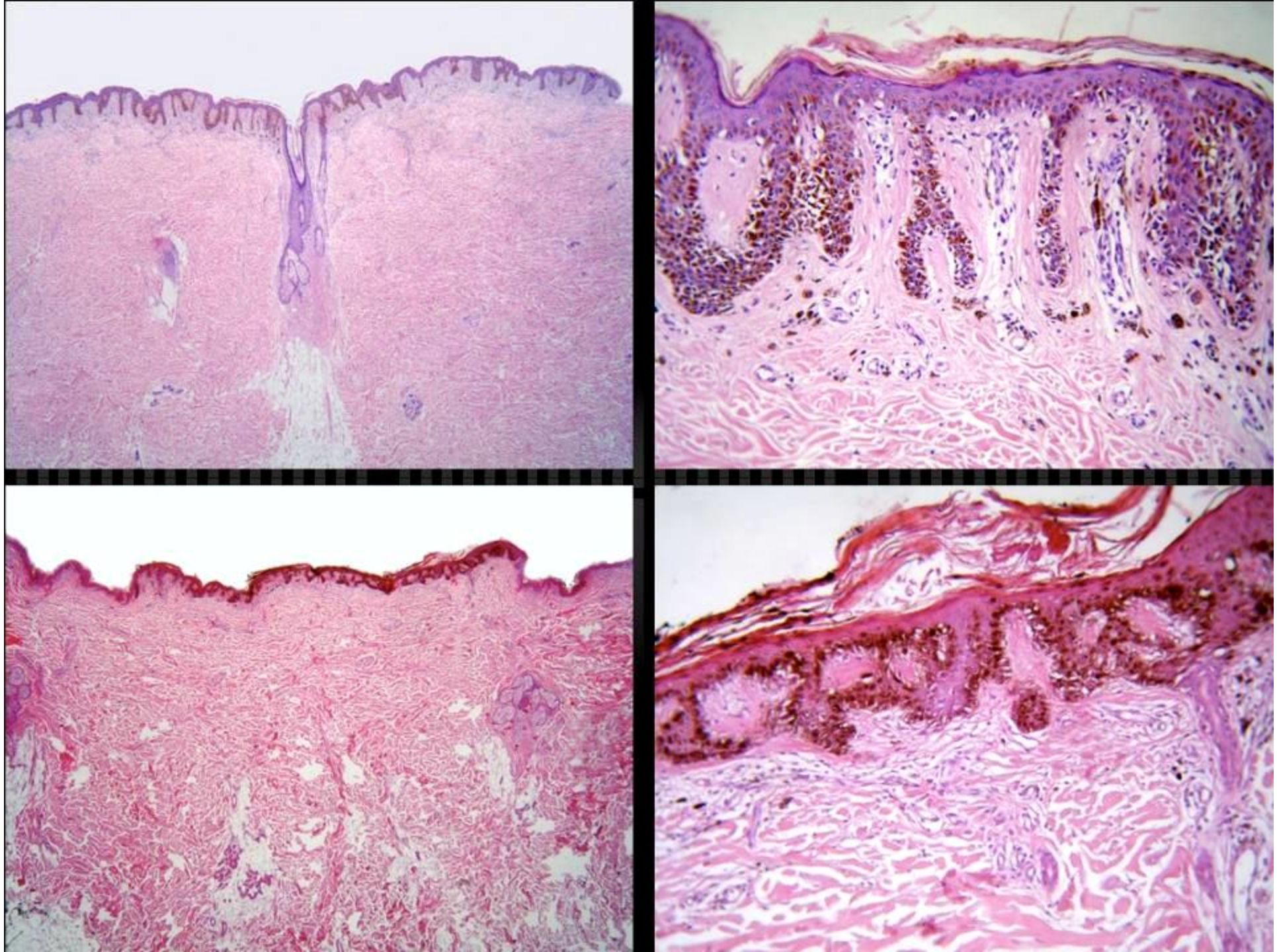
Globular pattern

- Correspond histopathologically to nests of melanocytes at the dermo-epidermal junction and in the dermis
- Are the dermoscopic hallmark of naevi in childhood
- Are typically seen in small congenital naevi, compound naevi (with and without dysplasia) and dermal naevi


100
110

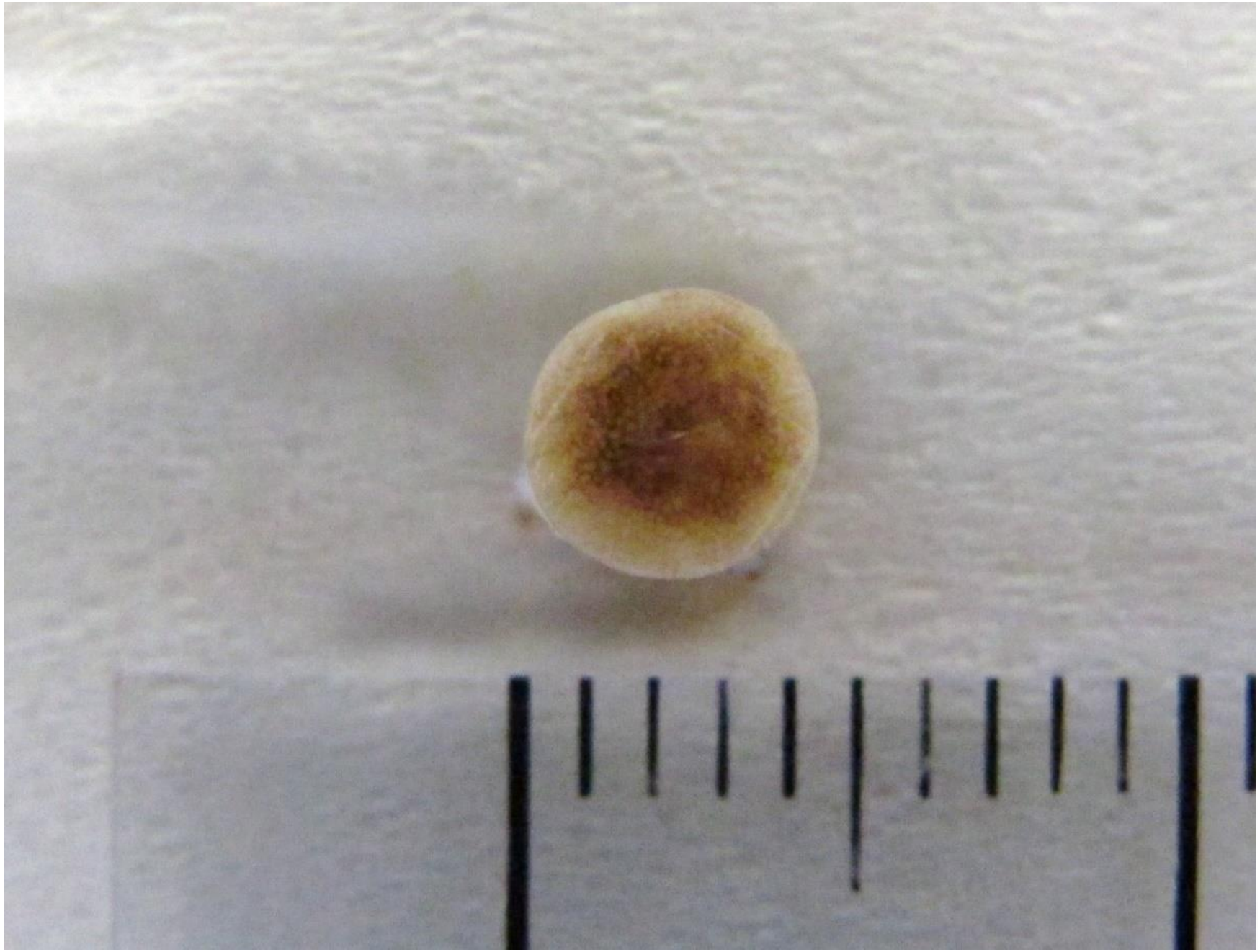


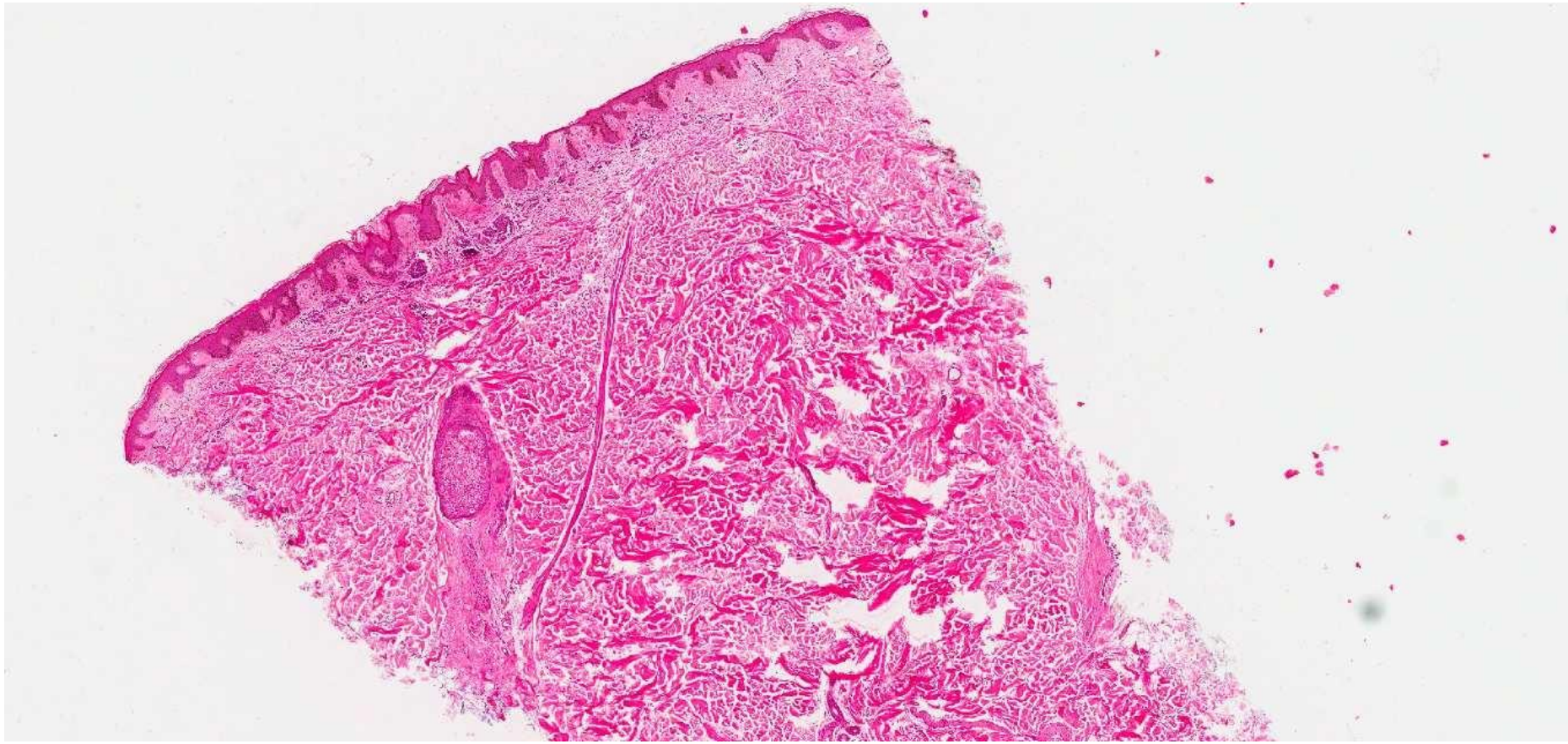




Reticular pattern

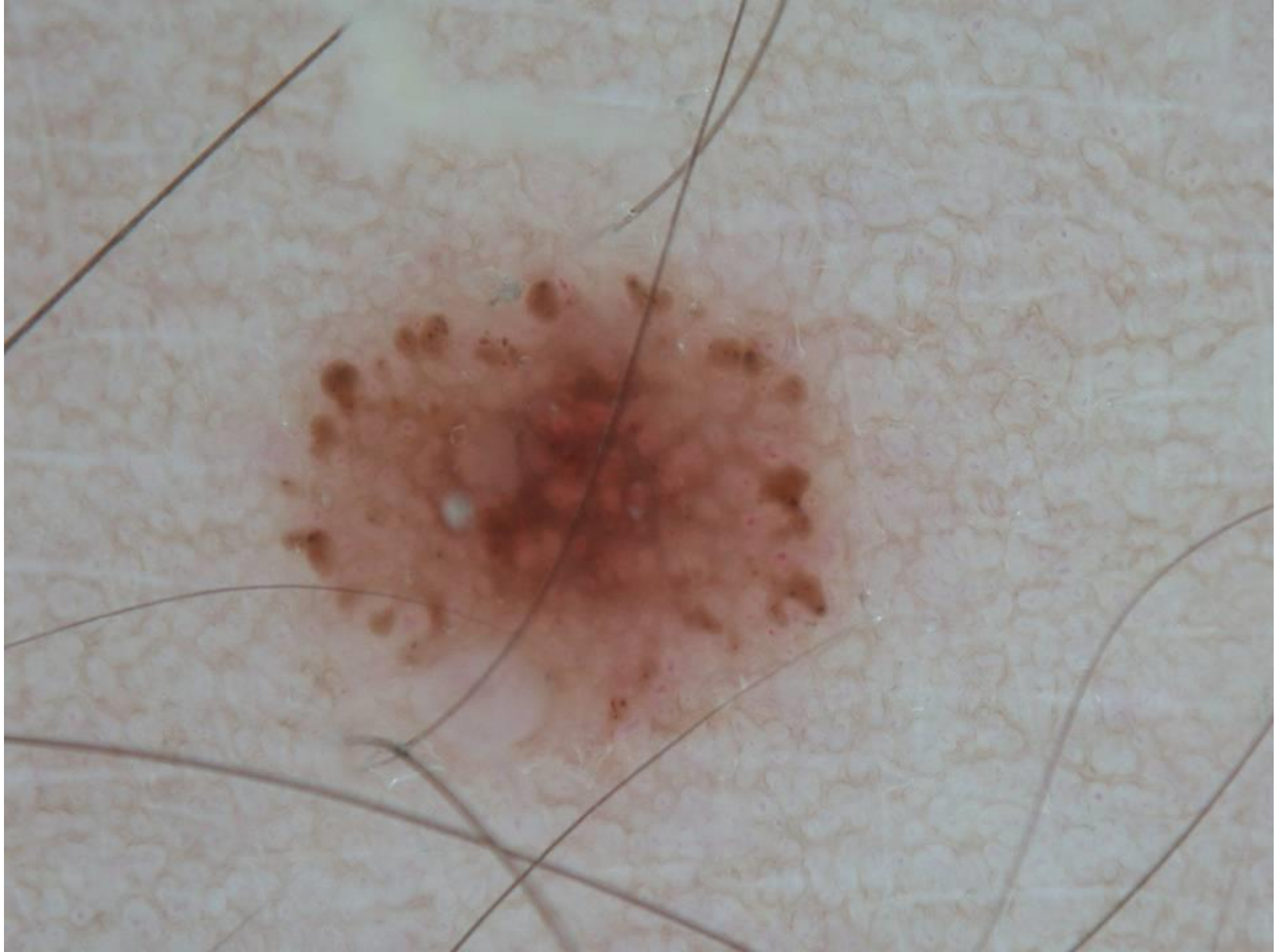
- Correspond to proliferations of melanocytes along the elongated rete ridges
- Are the dermoscopic hallmark of naevi in adults with development at puberty
- Are typically seen in junctional and compound naevi (with and without dysplasia)



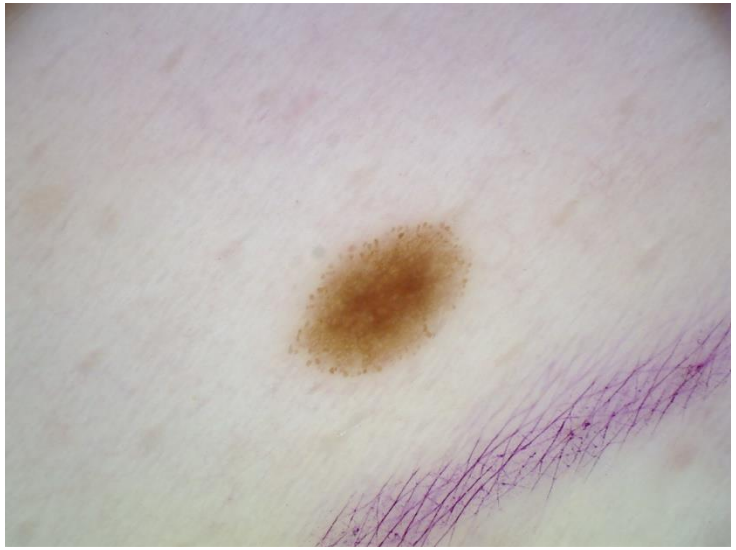


Naevi with a peripheral rim of globules

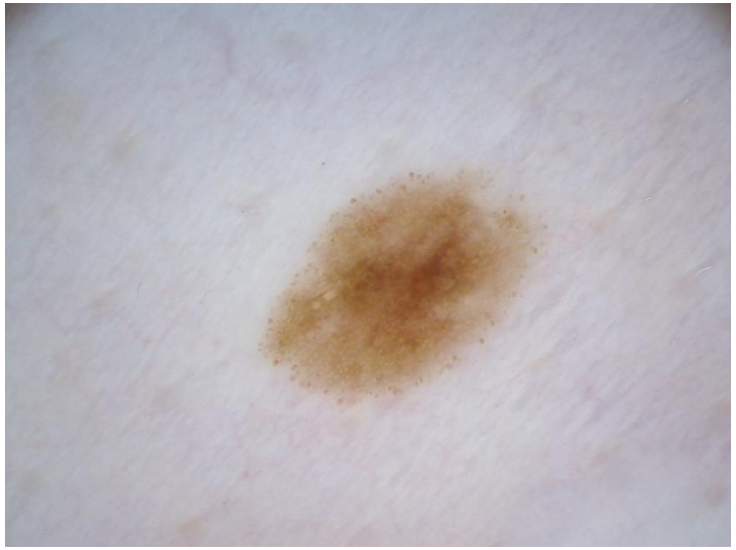
The dermoscopic hallmark of growing acquired melanocytic naevi



Patient: Male, 36yo
Lesion: Left axilla

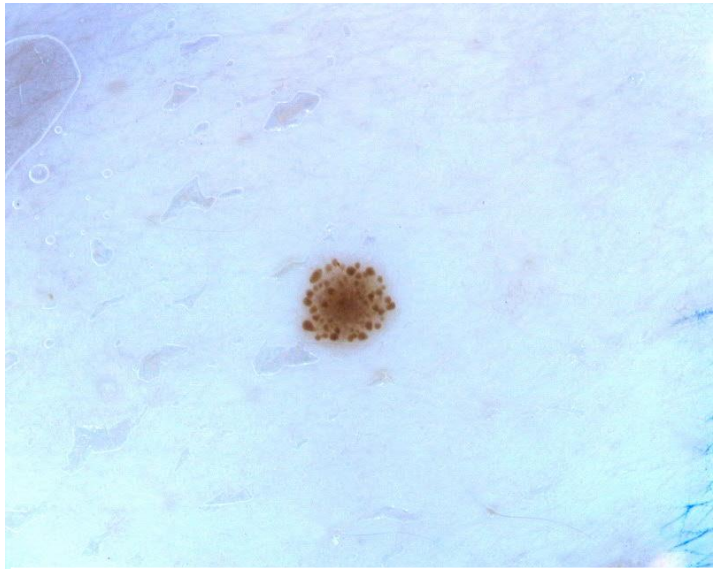


July 2012

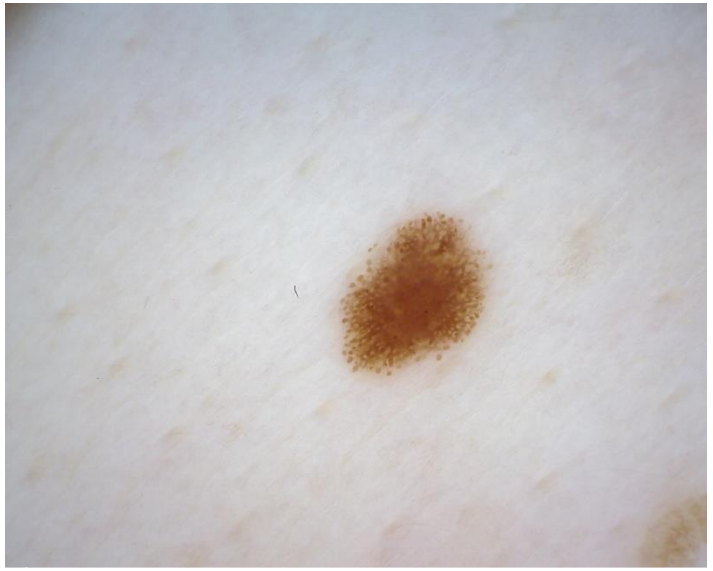


November 2013

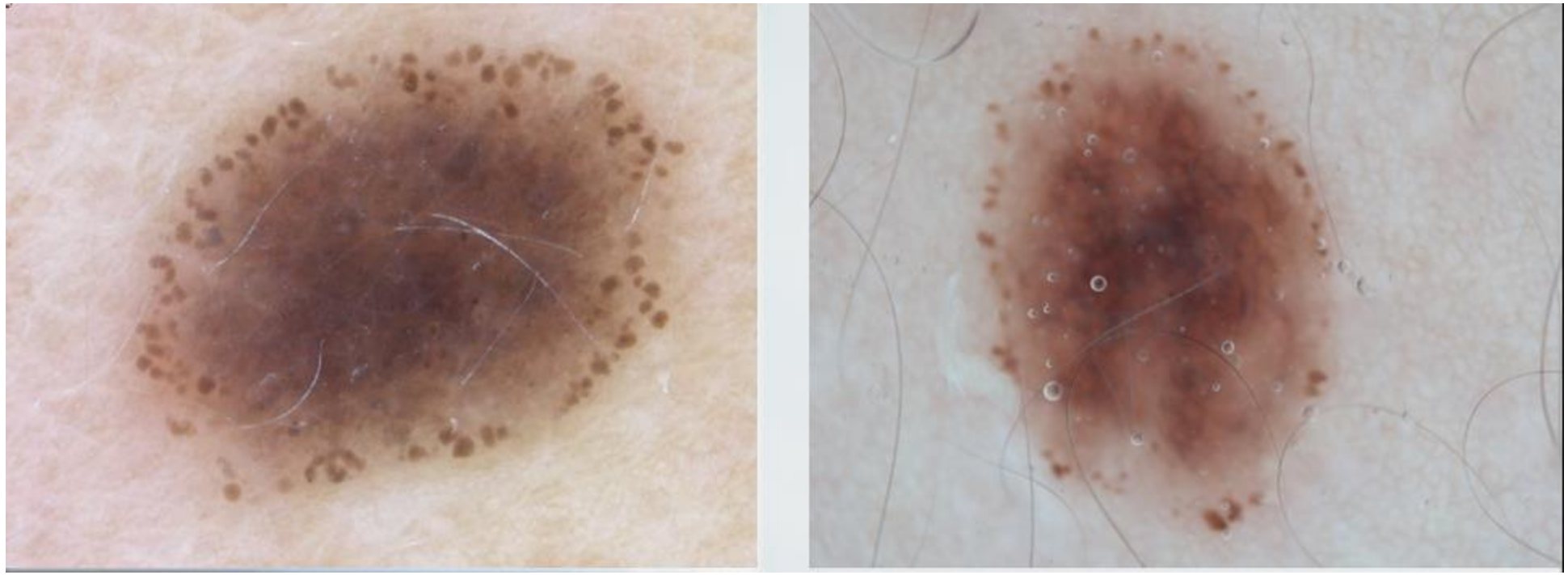
Patient: Female, 41yo
Lesion: Left axilla

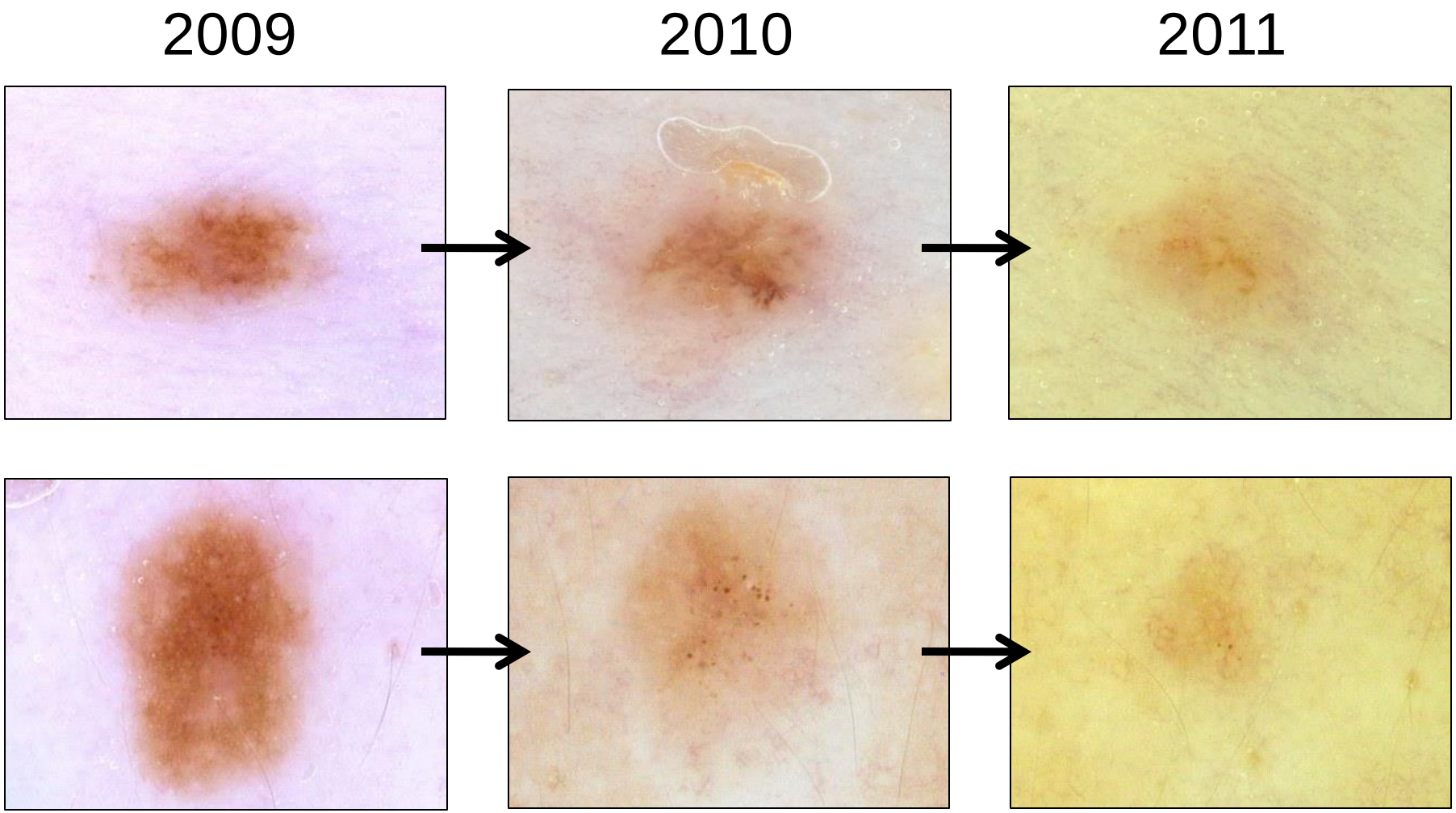


December 2010



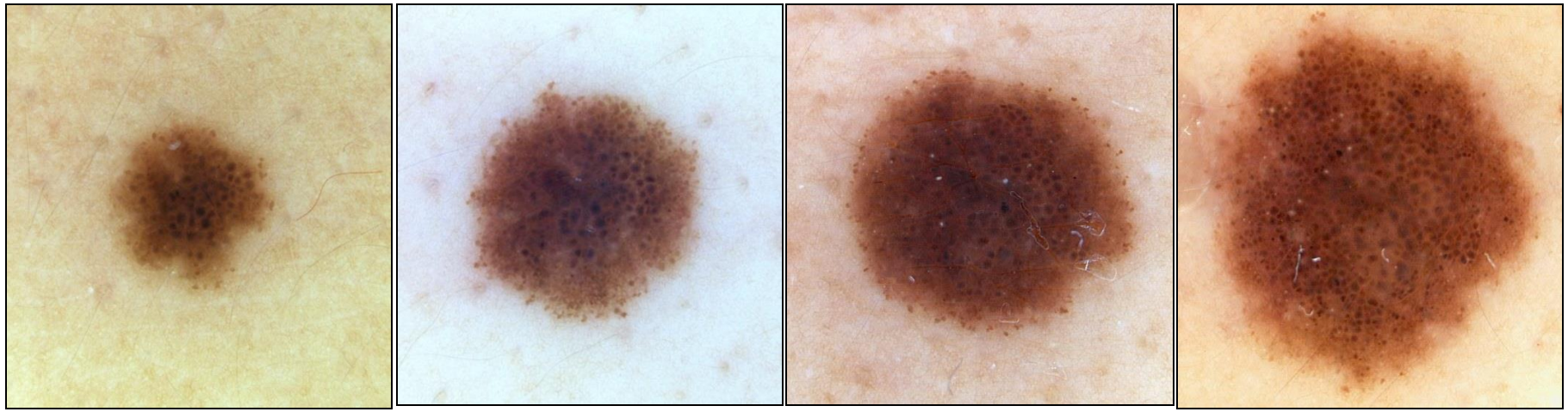
November 2013




2009
2010
2011

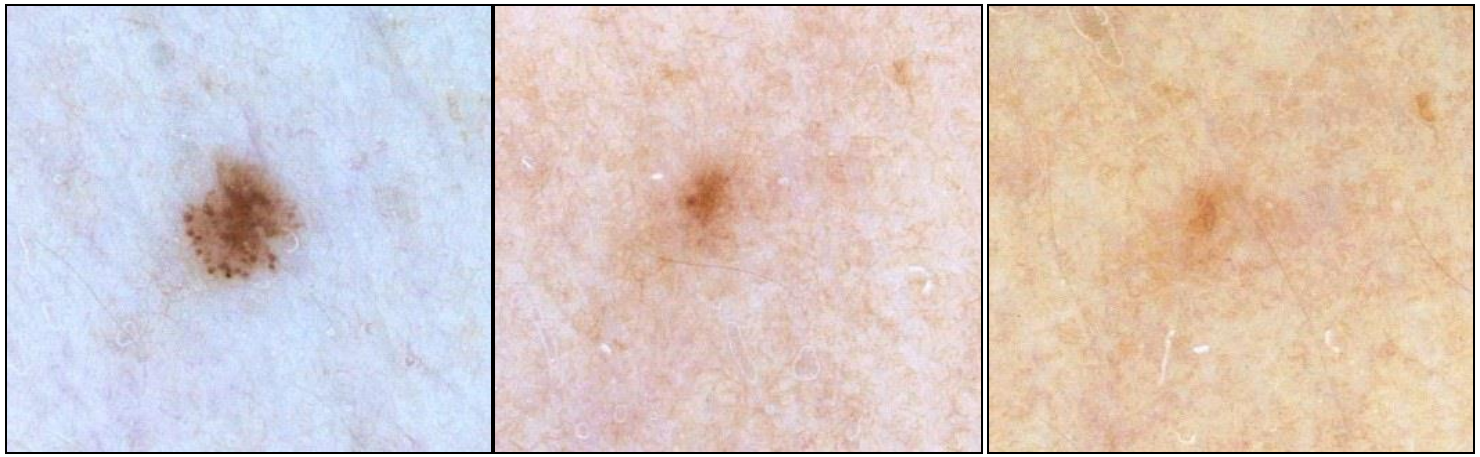
Patient: Female, 39 years old

Lesion: Central Mid Back



December 2006 August 2008 December 2009 January 2012

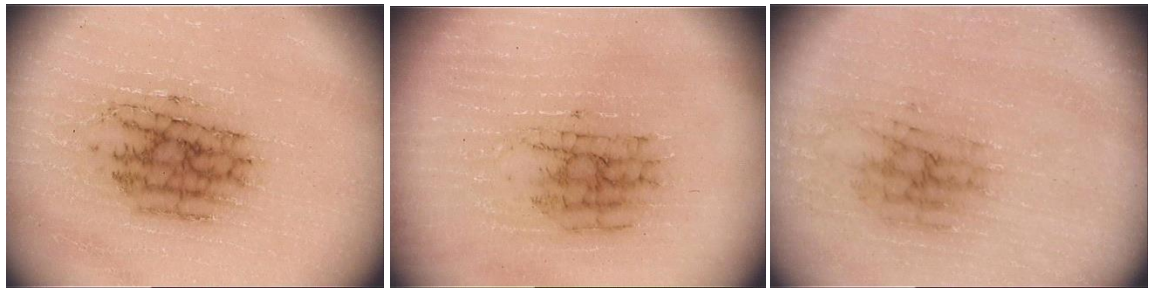
Lesion: Chest



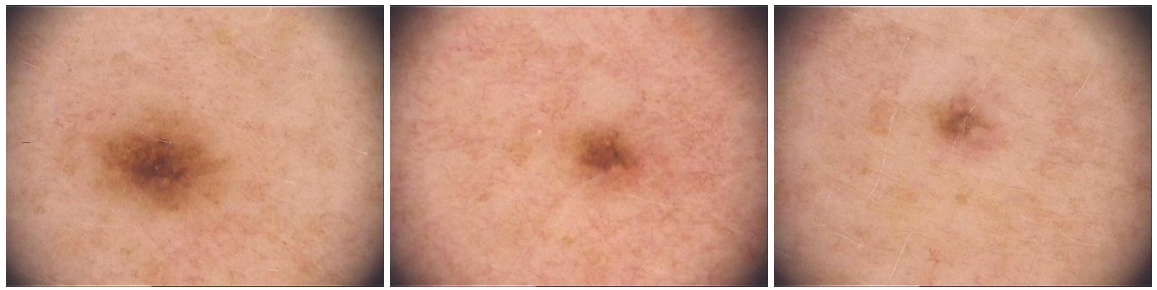
August 2008 December 2009 January 2012

28 year old male
2 melanomas to date;
2001 and 2008
Father had melanoma aged 52

INVOLUTING NAEVI

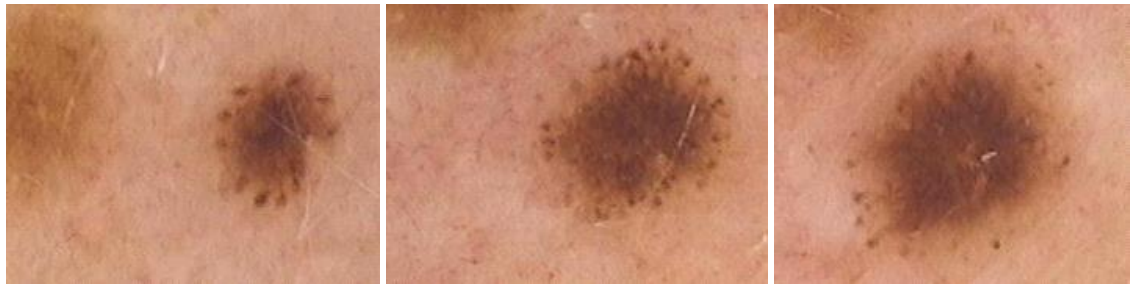


1) L palm 22/03/2010 15/11/2010 30/05/2011



2) Back 22/03/2010 15/11/2010 30/05/2011

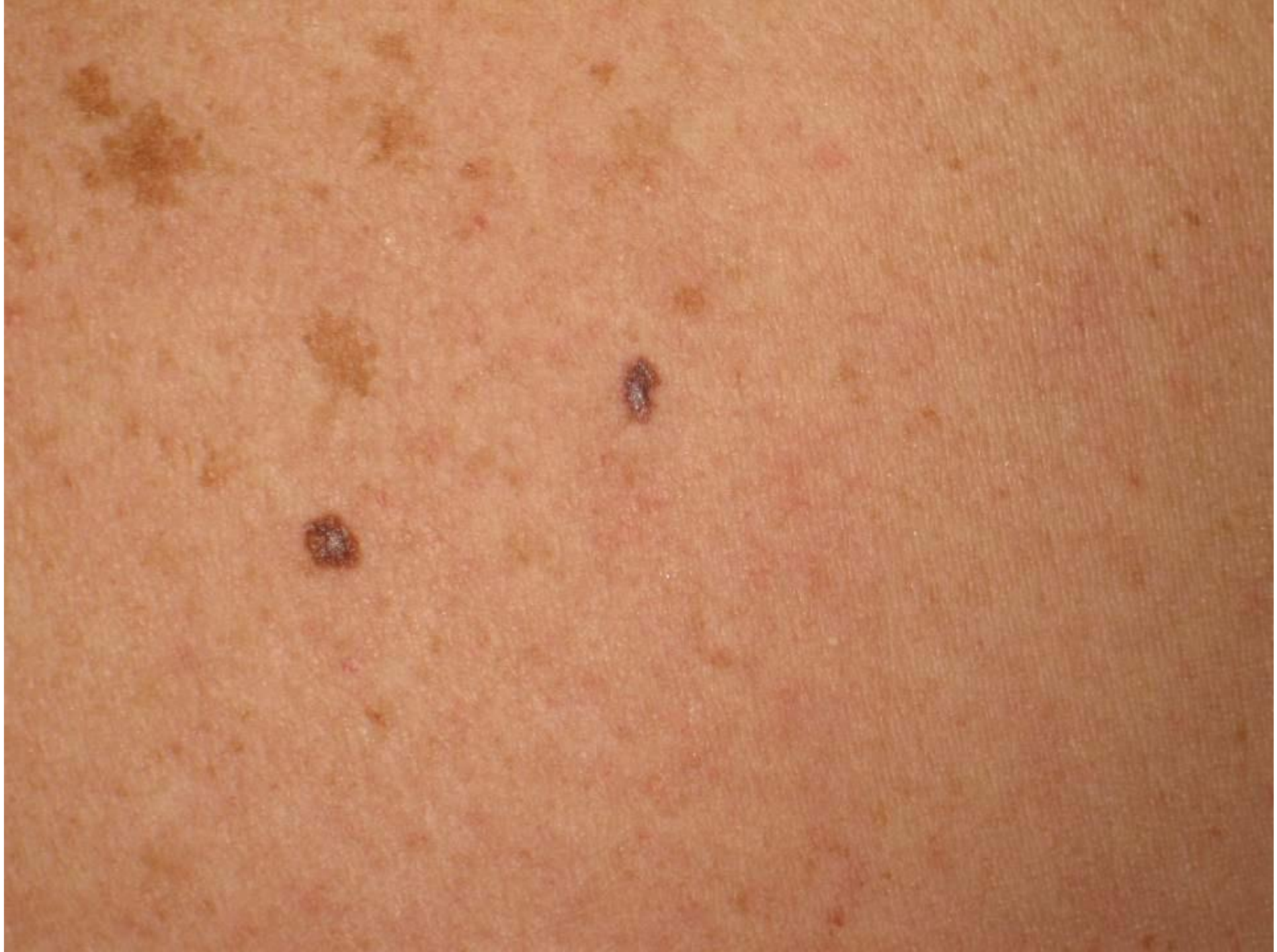
EVOLUTING NAEVUS

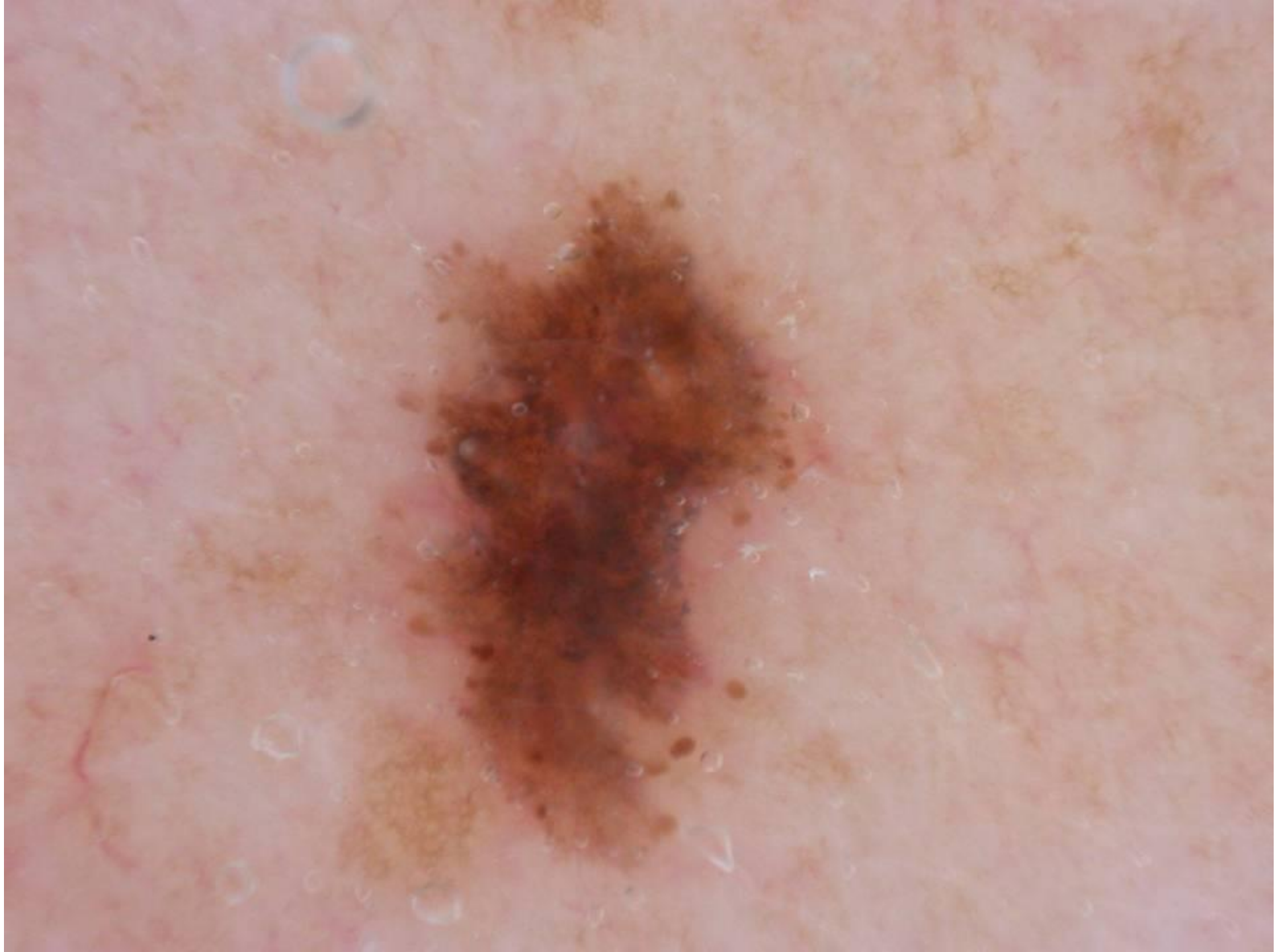


3) Back 22/03/20110 15/11/2010 30/05/2011

CAVE

Naevi with a peripheral rim of globules after the 6th decade





Pathways to Involution of Nevi

Insights From Dermoscopic Follow-up

Vitaly Terushkin, BS; Alon Scope, MD; Allan C. Halpern, MD; Ashfaq A. Marghoob, MD;
Memorial Sloan-Kettering Cancer Center, New York, New York

THE LIFE OF A MELANOCYTIC NEVUS CAN BE conceptually divided into 3 stages: inception to growth, senescence, and involution. Dermoscopy has provided insights into understanding the first 2 stages of nevogenesis.[1-3] Herein, we show longitudinal changes in dermoscopic features of nevi that highlight distinct pathways to nevus involution.

The first nevus demonstrates disappearance via a halo phenomenon.[4] During dermoscopic follow-up (**Figure 1** [A, at baseline in a 33-year-old patient; B, after 12 months; and C, after 2½ additional years]), the pigmented central portion, which has a globular-homogeneous dermoscopic pattern, became progressively smaller and was replaced by the centripetally growing depigmented halo. The remaining hypopigmented macule usually repigments and becomes inconspicuous. An immune-mediated process primarily involving T-cell lymphocytes has been implicated in this phenomenon.[5]

The second nevus displays a regression pattern. The pigment globules and network are gradually replaced with dermoscopic regression structures, including peppering (granularity) and white scarlike areas (**Figure 2** [A, at baseline in a 3-year-old patient; B, after 6 months; and

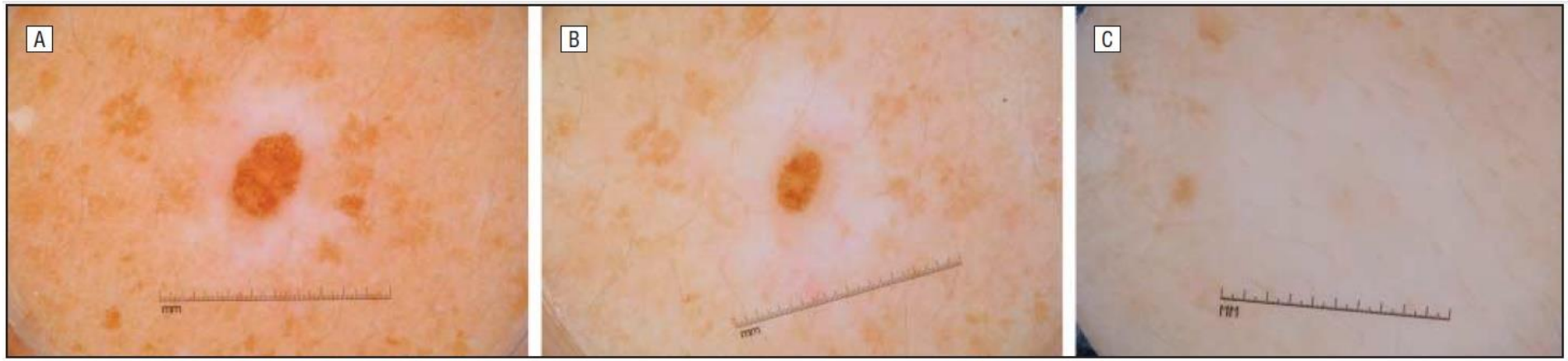
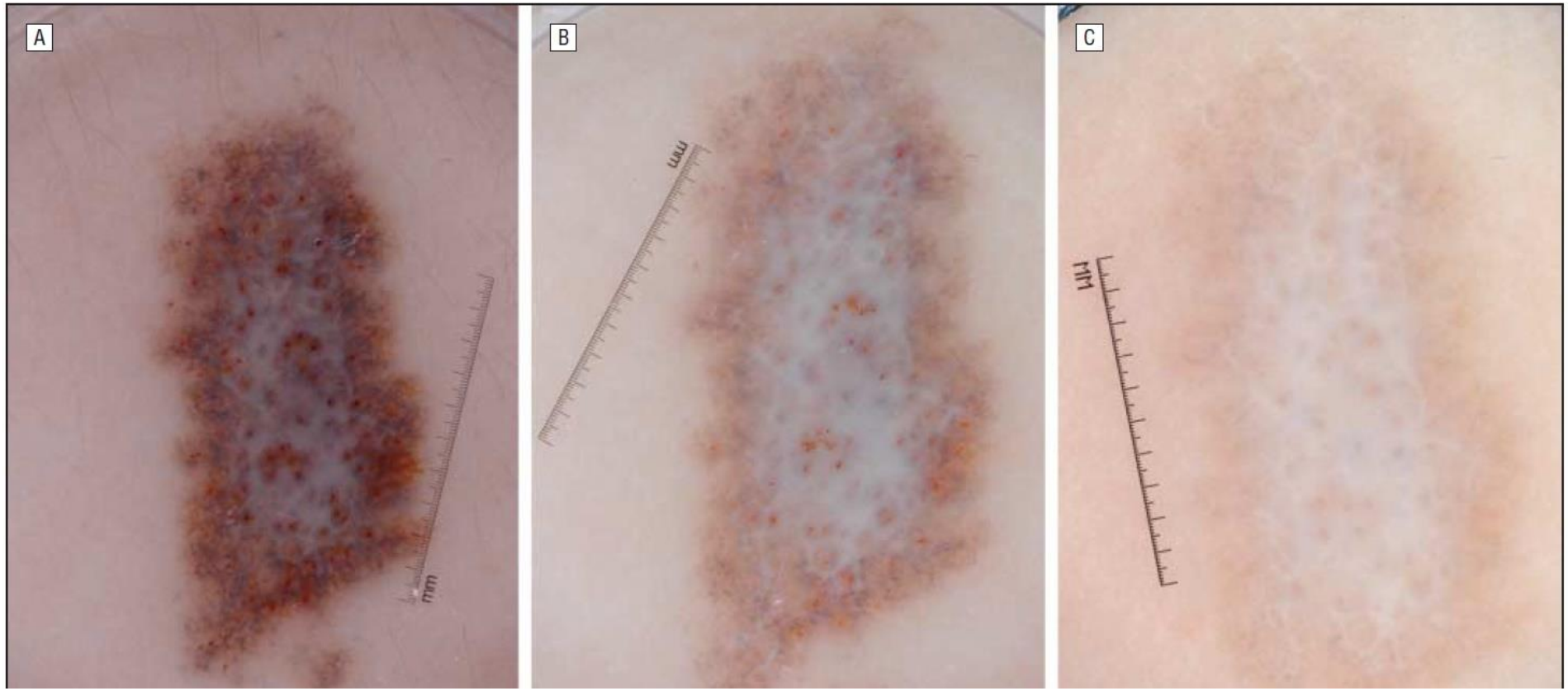


Figure 1.



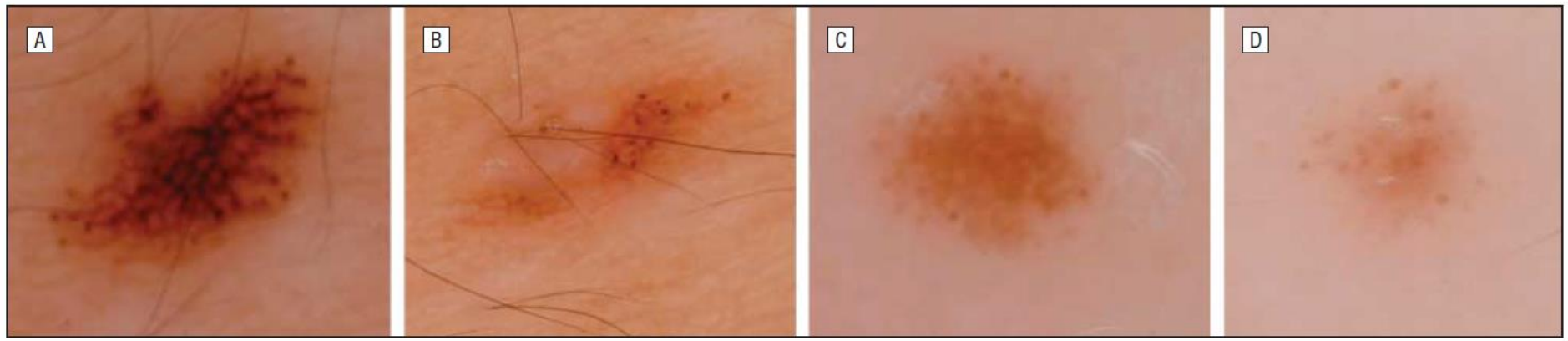


Figure 3.

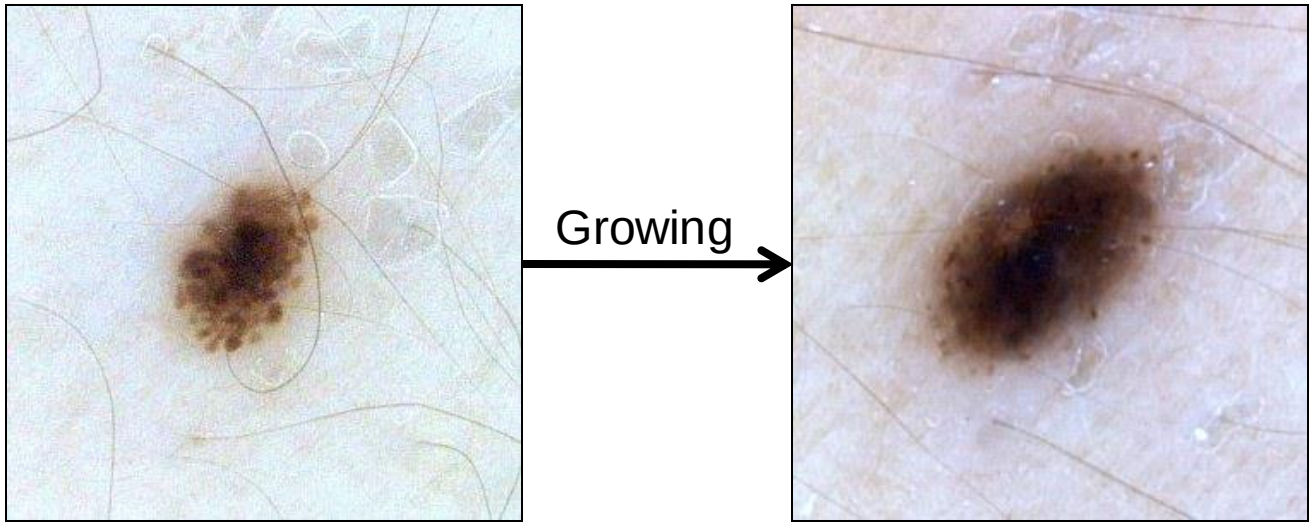
C, after 6 more months]). Dermoscopic regression has been shown to correlate on histopathologic analysis with the presence of dermal melanophages and fibroplasia.[6,7]

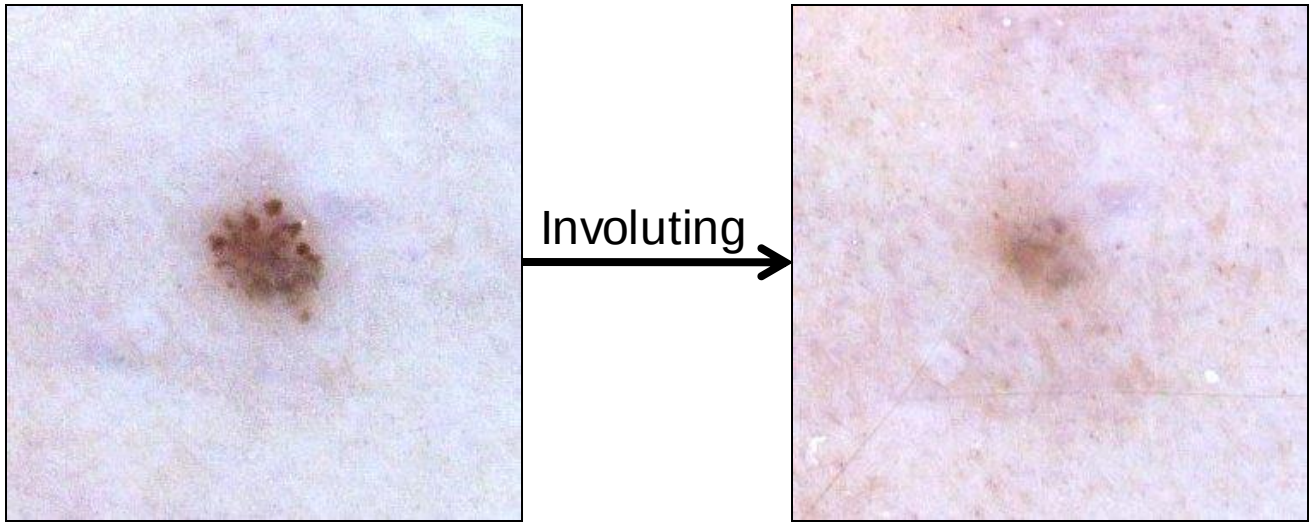
The third pattern is gradual involution without evidence of a halo phenomenon or a regression pattern (**Figure 3** [A, nevus at baseline in a 10-year-old patient; B, after 3 years; C, nevus at baseline in another 10-year-old patient; and D, after 3 years]). Similar findings were reported in children with large congenital melanocytic nevi[8] and in a female post partum.[9] Interestingly, in the latter case, increased apoptotic activity of nevus

7. Massi D, De Giorgi V, Carli P, Santucci M. Diagnostic significance of the blue hue in dermoscopy of melanocytic lesions: a dermoscopic-pathologic study. *Am J Dermatopathol*. 2001;23(5):463-469.
8. Kageshita T, Inoue Y, Ono T. Spontaneous regression of congenital melanocytic nevi without evidence of the halo phenomenon. *Dermatology*. 2003; 207(2):193-195.
9. Lee HJ, Ha SJ, Lee SJ, Kim JW. Melanocytic nevus with pregnancy-related changes in size accompanied by apoptosis of nevus cells: a case report. *J Am Acad Dermatol*. 2000;42(5 Pt 2):936-938.
10. Schaffer JV, Glusac EJ, Bolognia JL. The eclipse naevus: tan centre with stellate brown rim. *Br J Dermatol*. 2001;145(6):1023-1026.
11. Yazici AC, Ikizoğlu G, Apa DD, Kaya TI, Tataroğlu C, Köktürk A. The eclipse naevus and cockade naevus: are they two of a kind? *Clin Exp Dermatol*. 2006; 31(4):596-597.

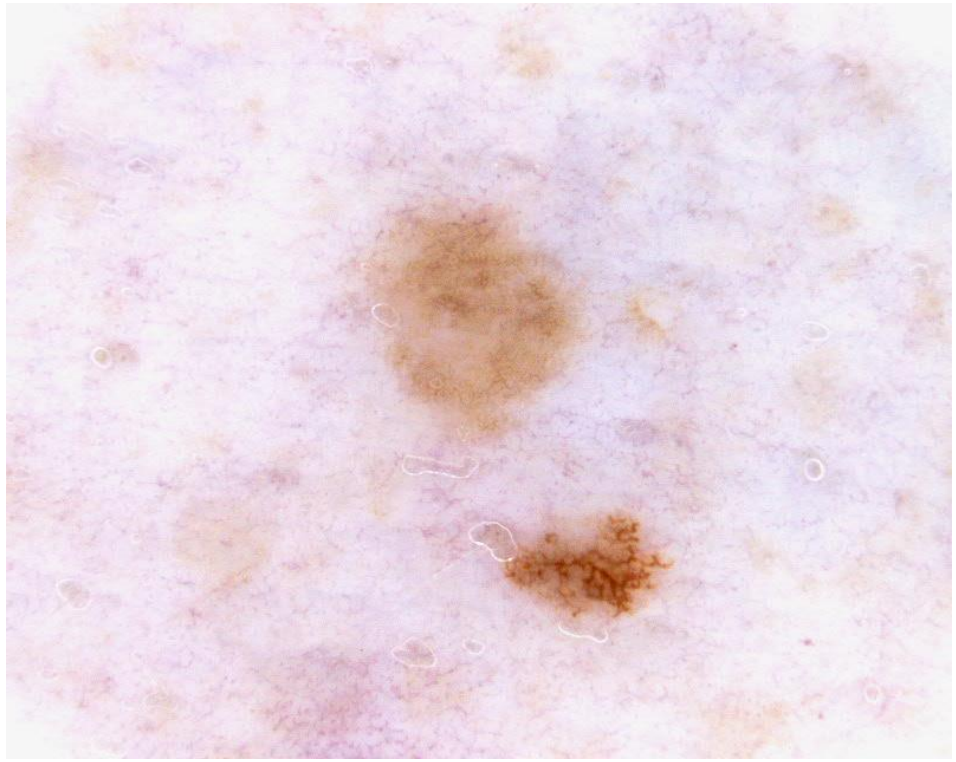
2009

2011

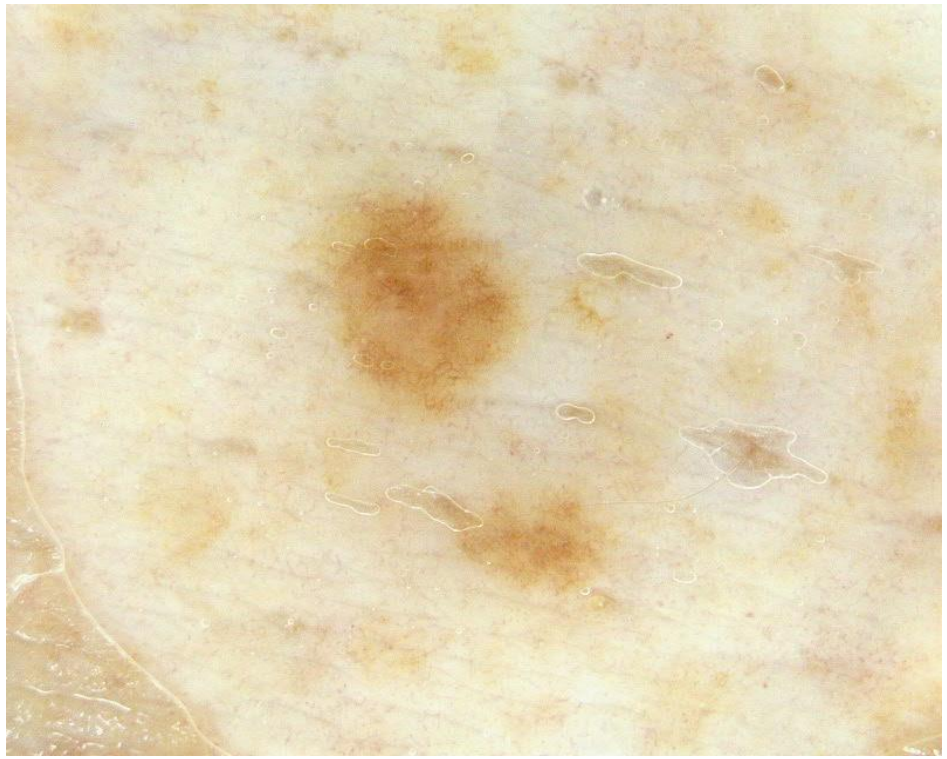




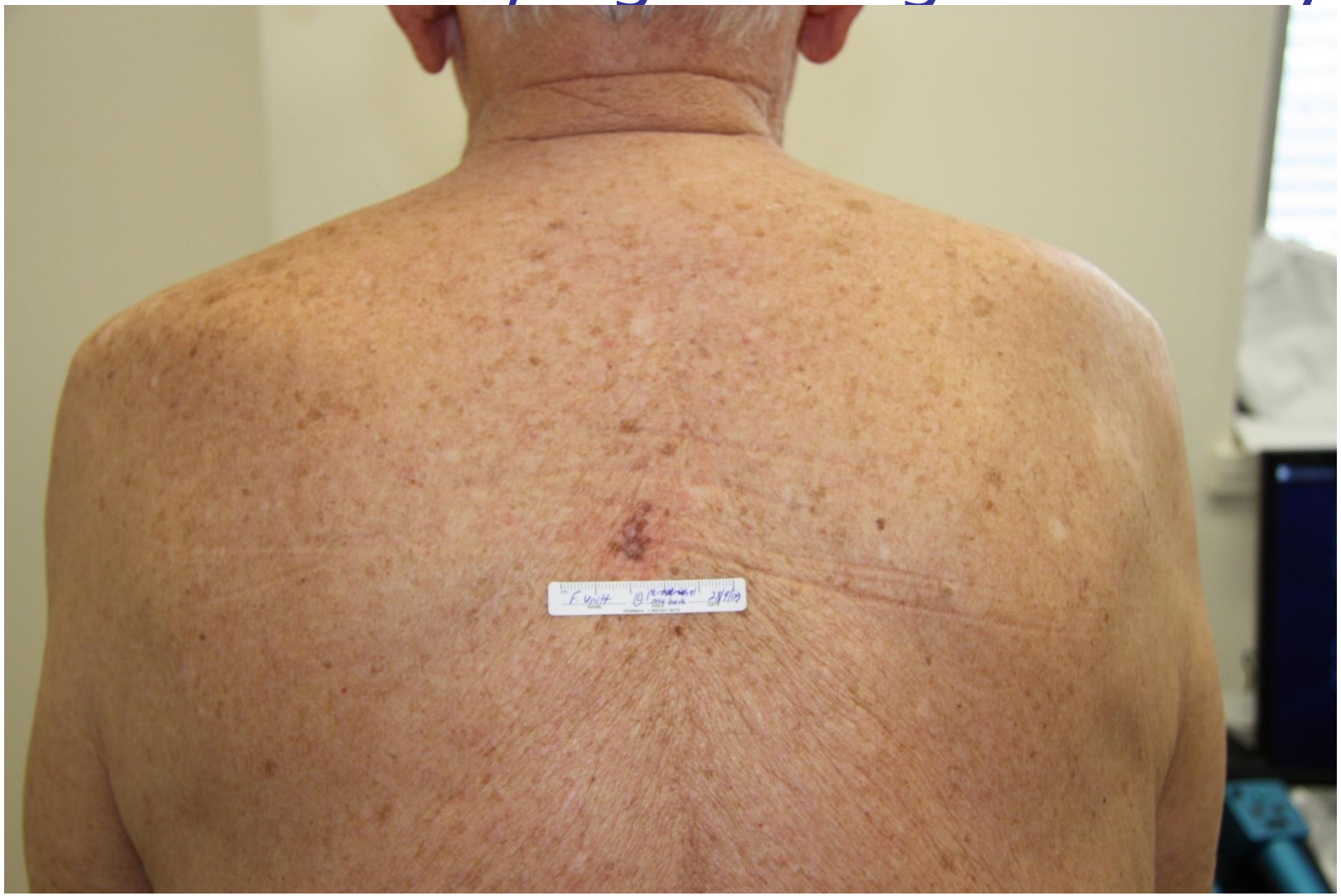
January 2011

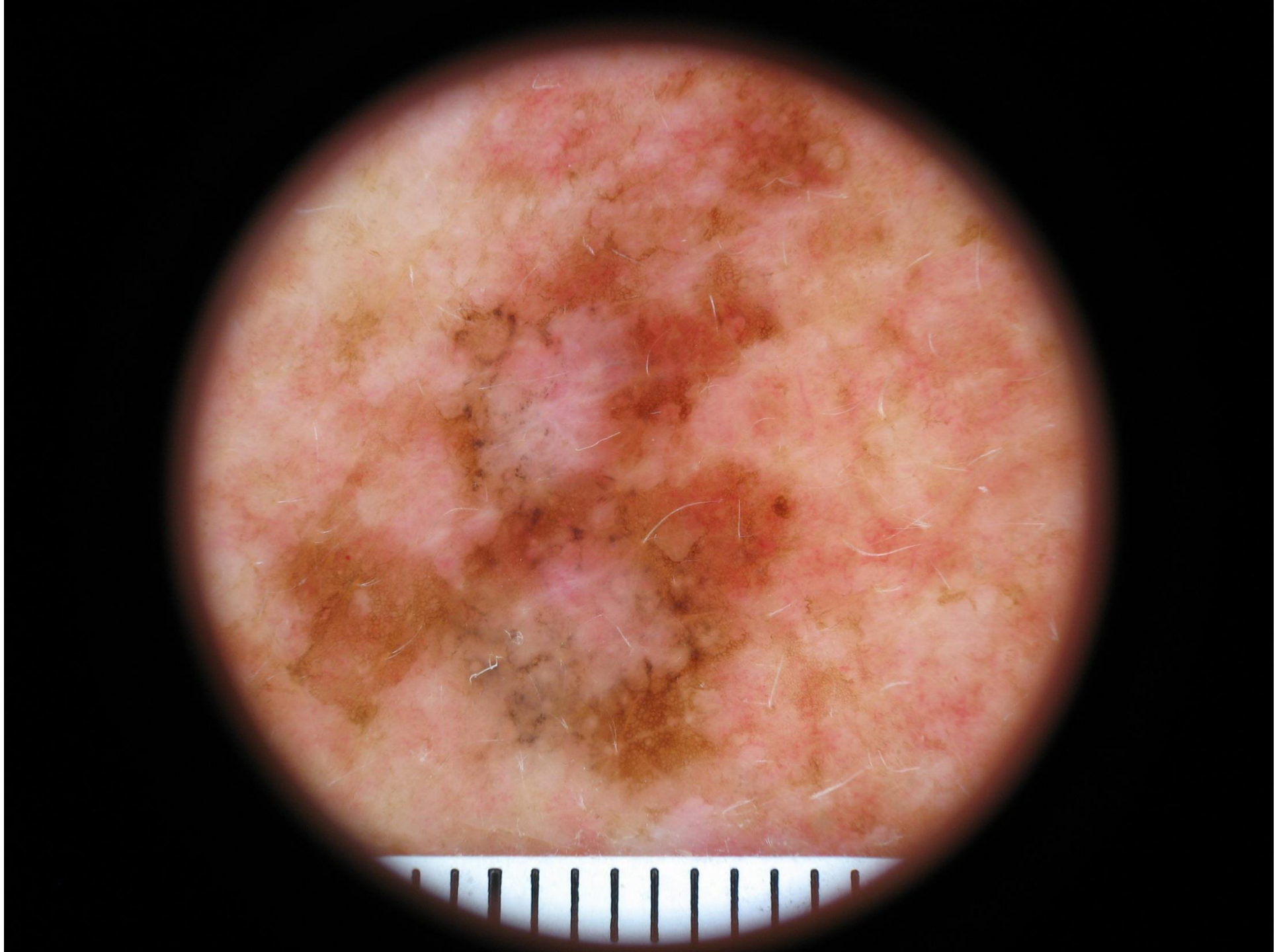


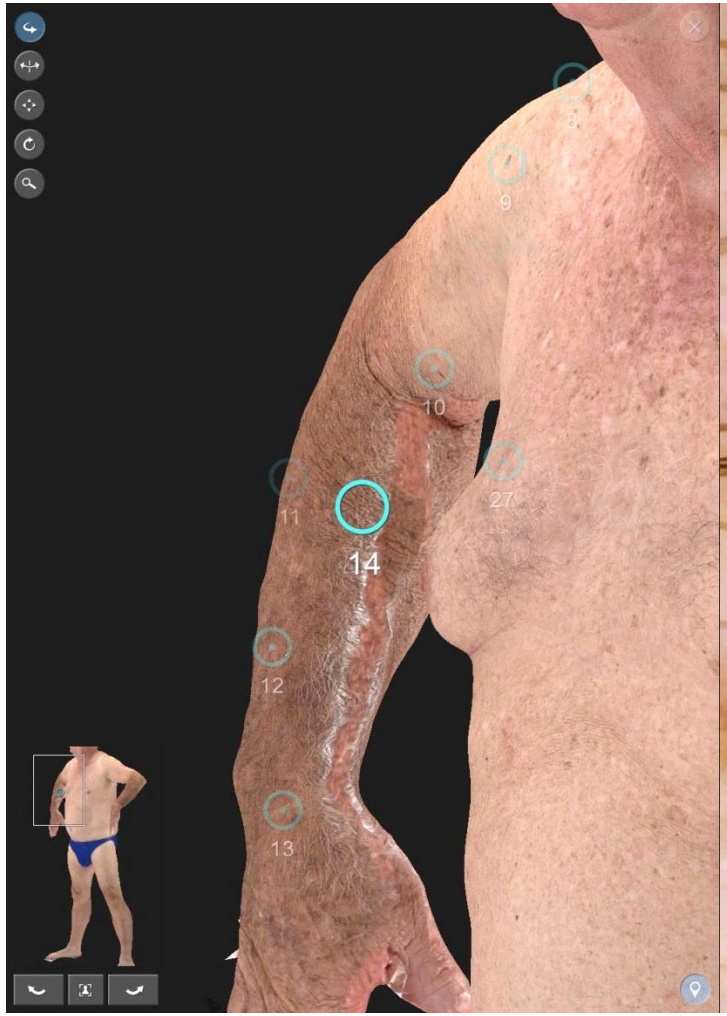
June 2012

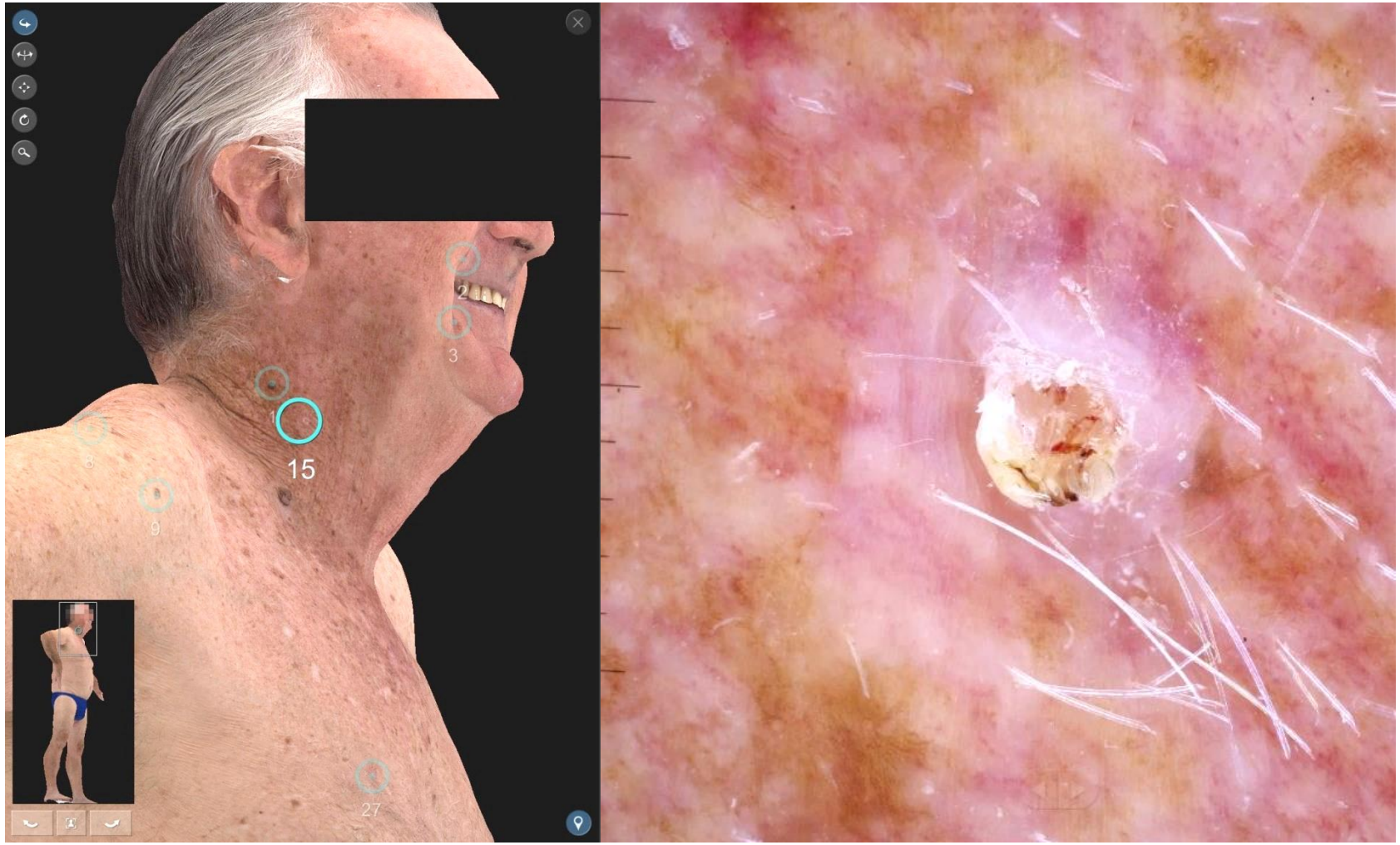


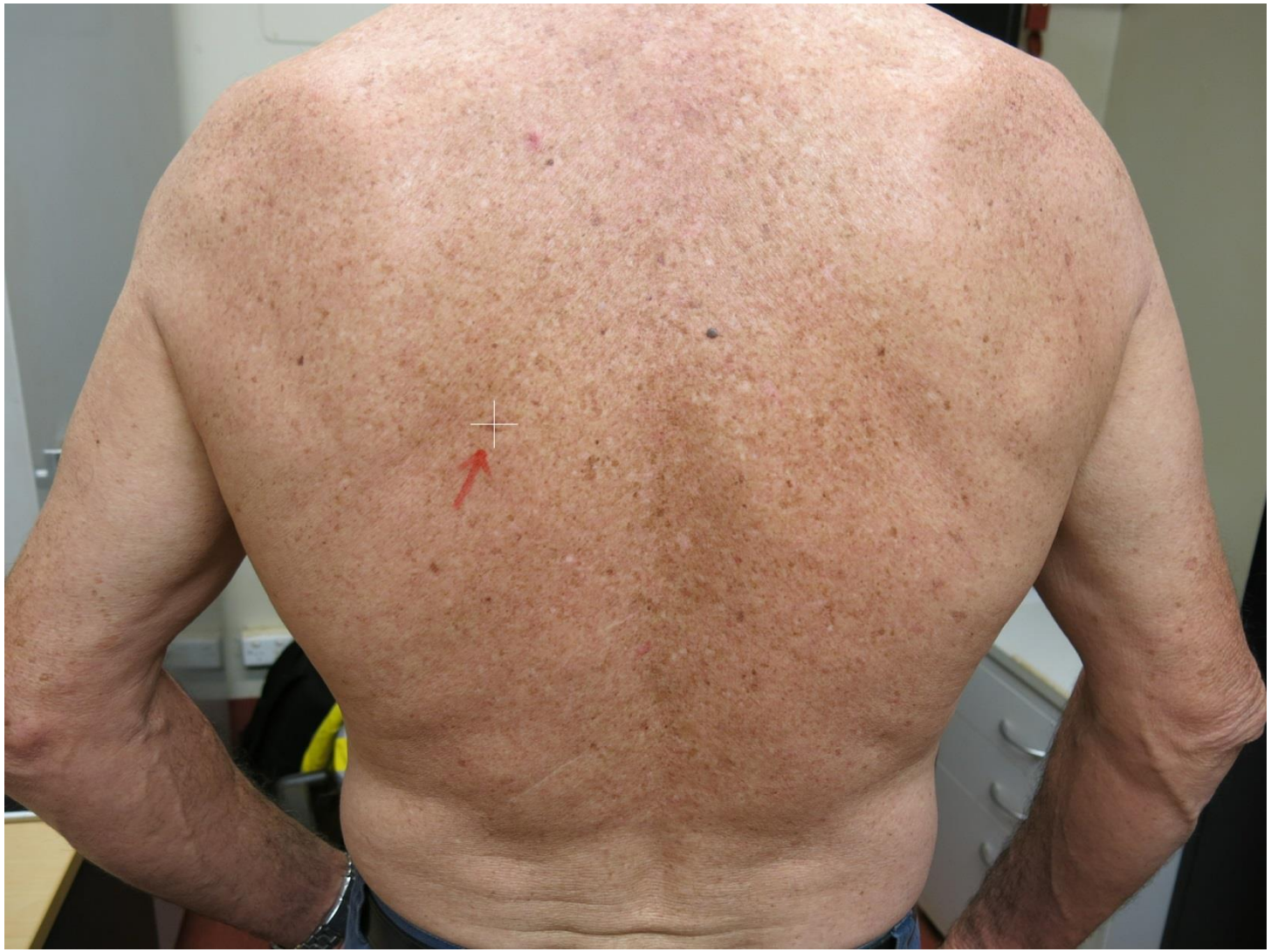
Low-Naevus/High-Sunlight Pathway

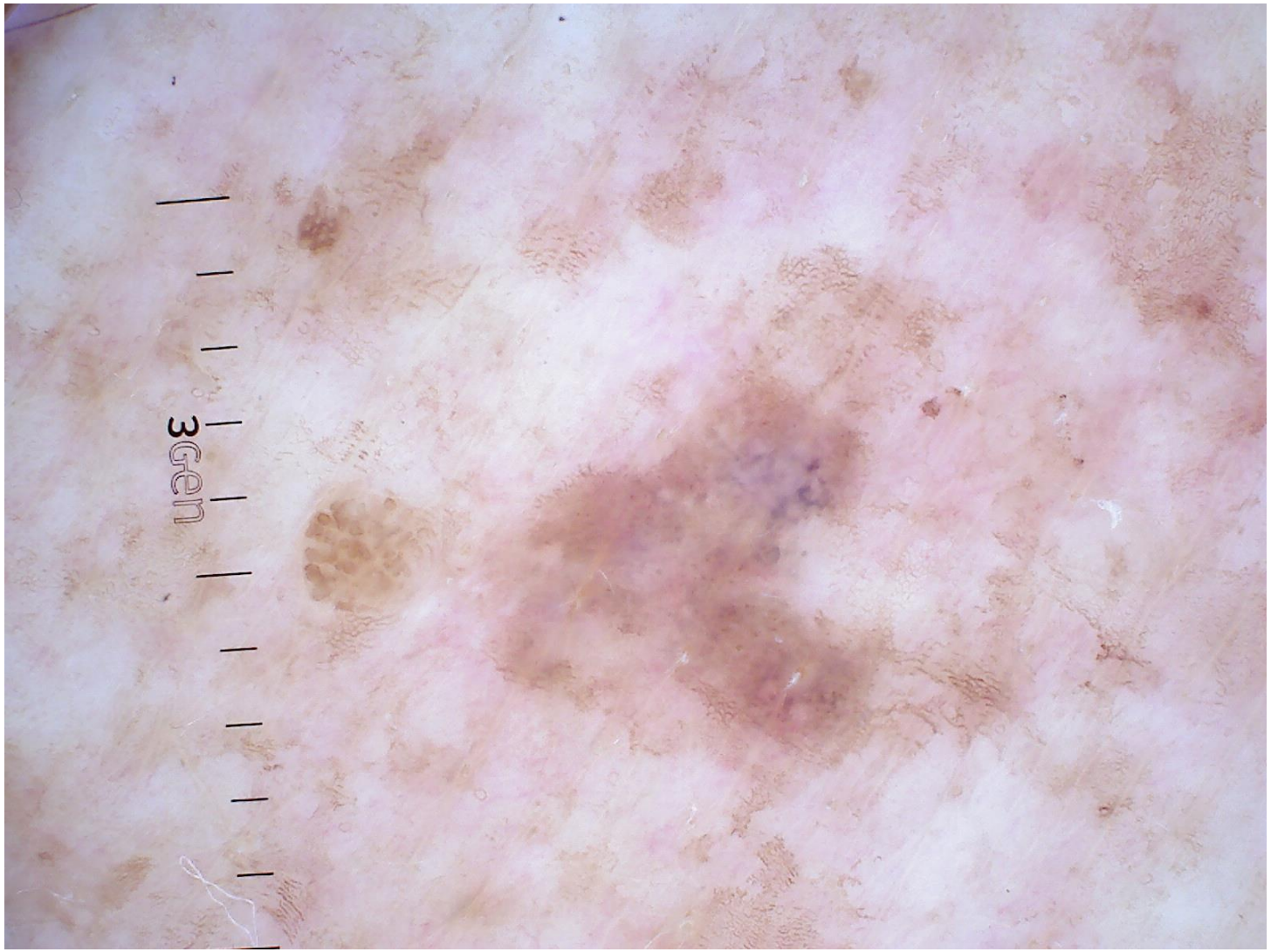




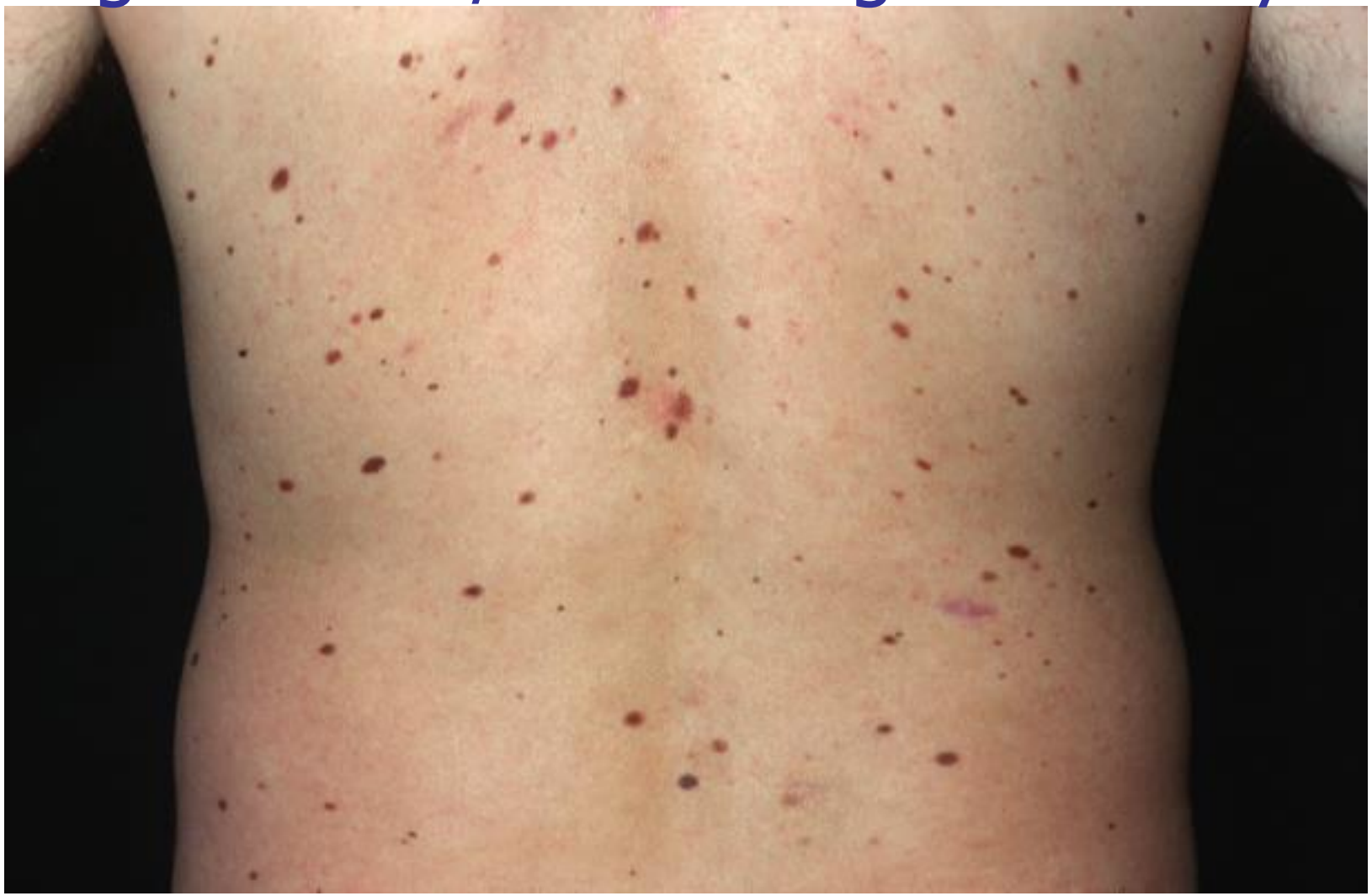

8
9
10
11
14
27
12
13

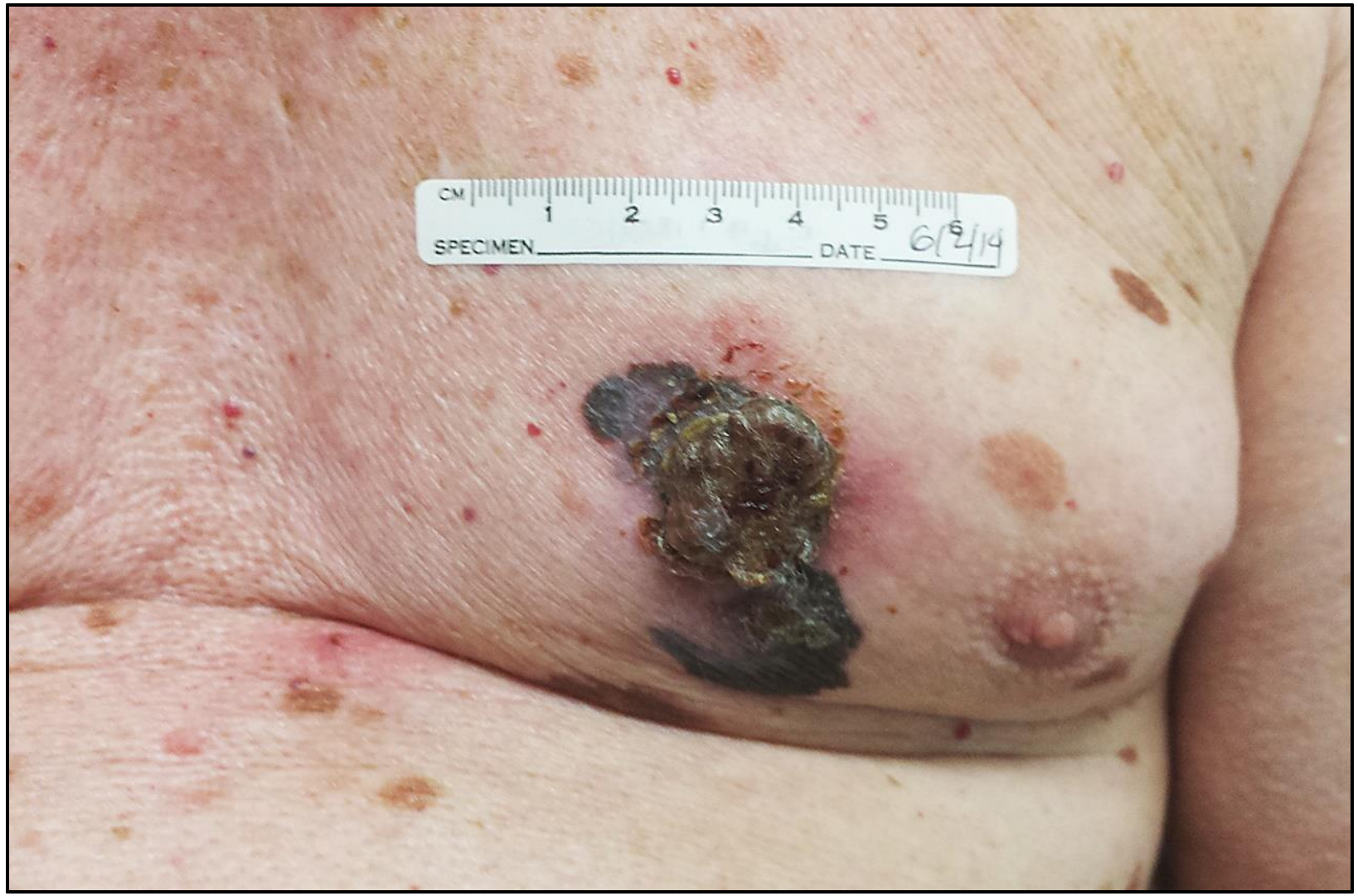

2
3
15
9
27




3Gen

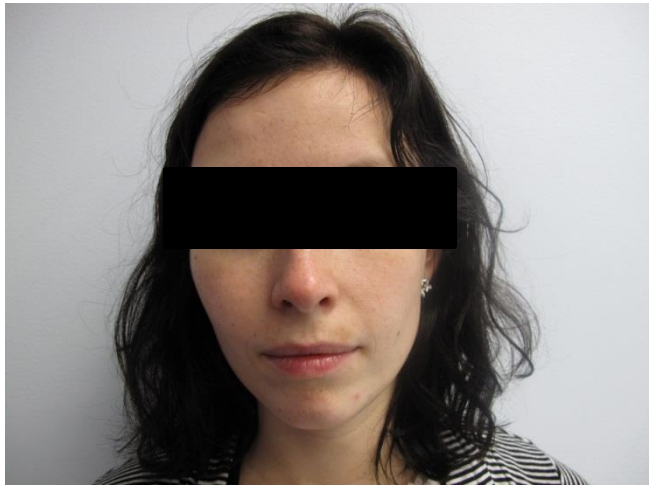
High-Naevus/Low-Sunlight Pathway




CM
1 2 3 4 5 6
SPECIMEN
DATE 6/24/14

Case Study

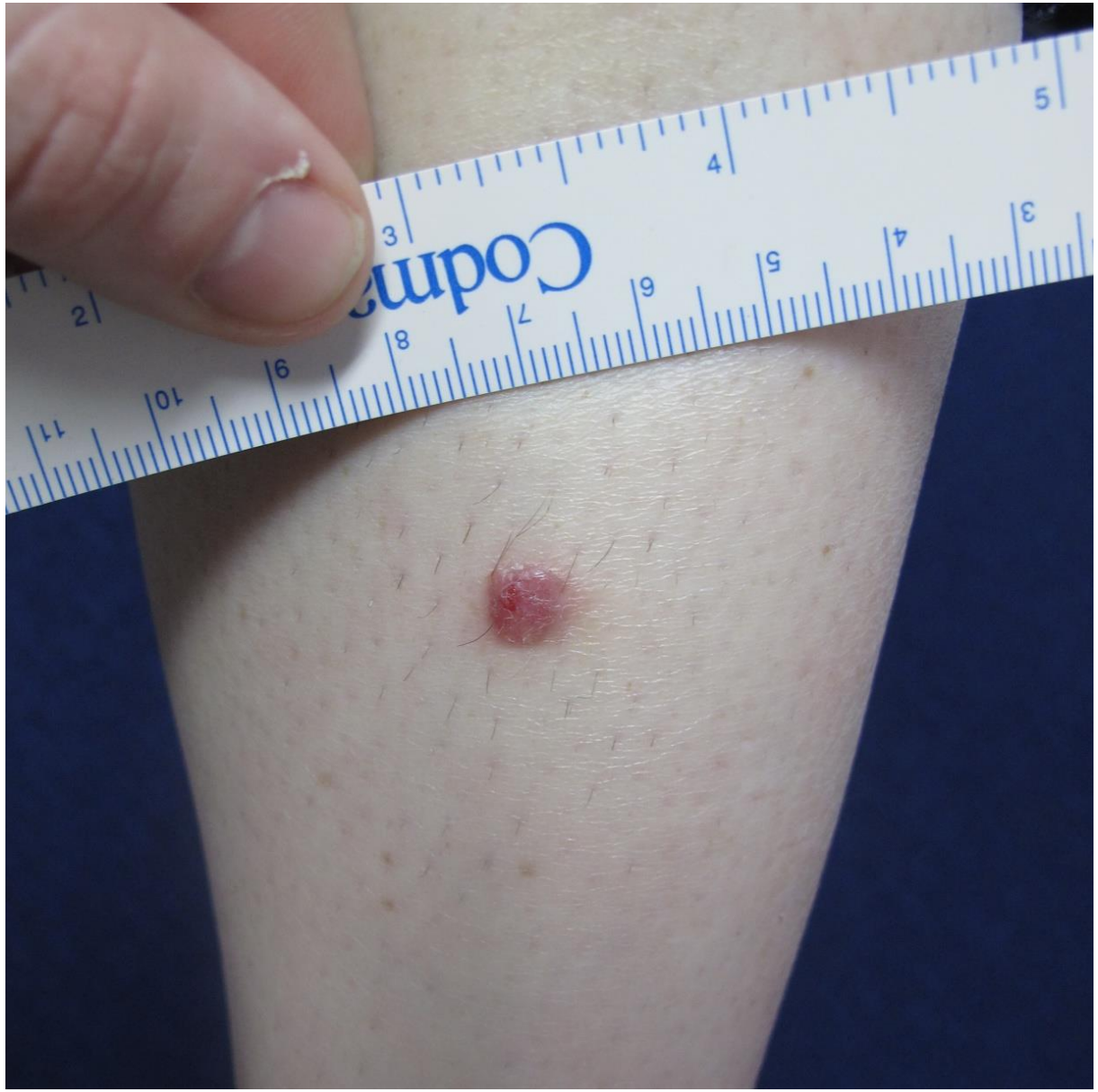
- 26 year old female
- Fitzpatrick's skin type I (fair)
- Brunette; hazel eyes

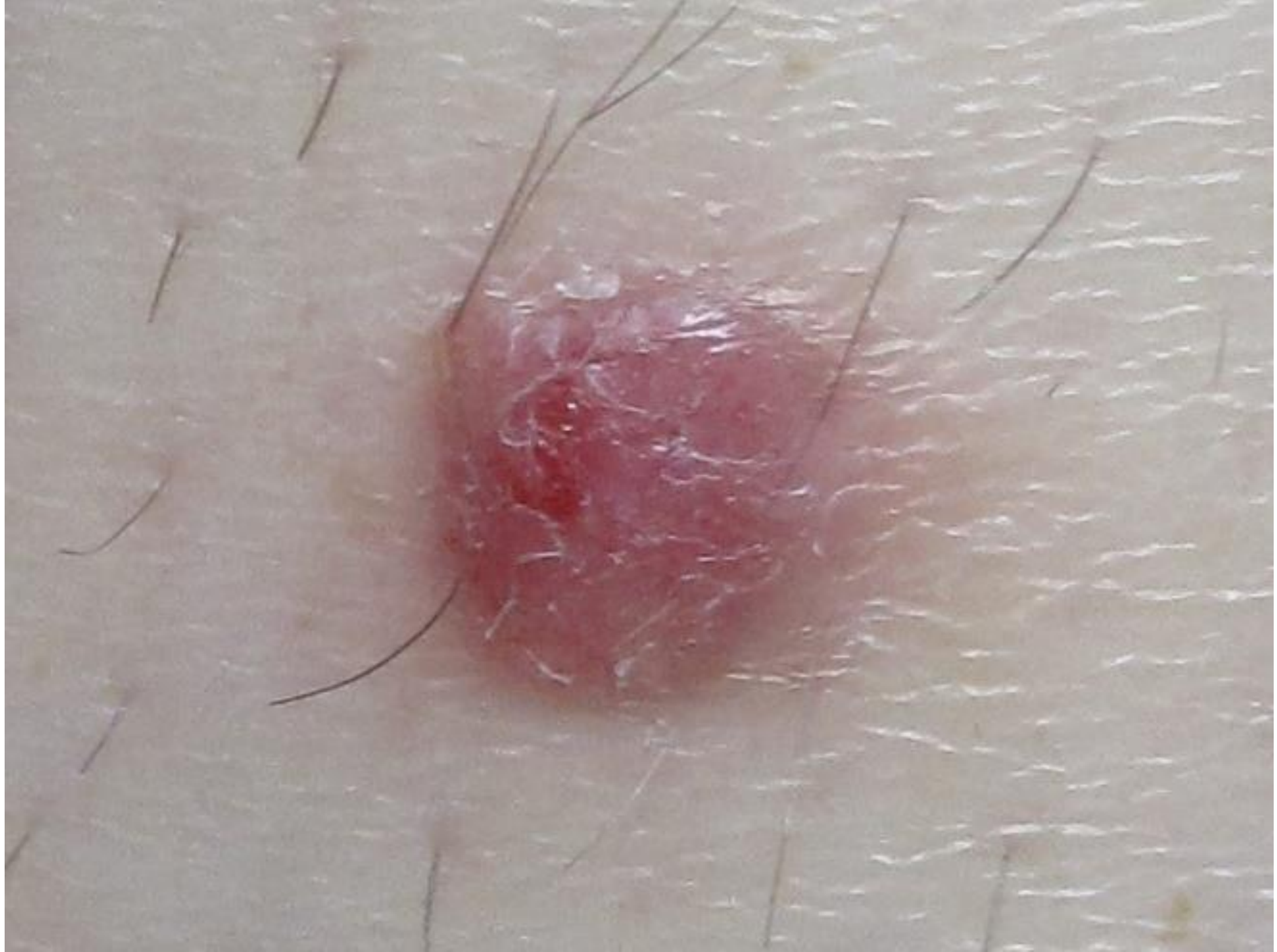


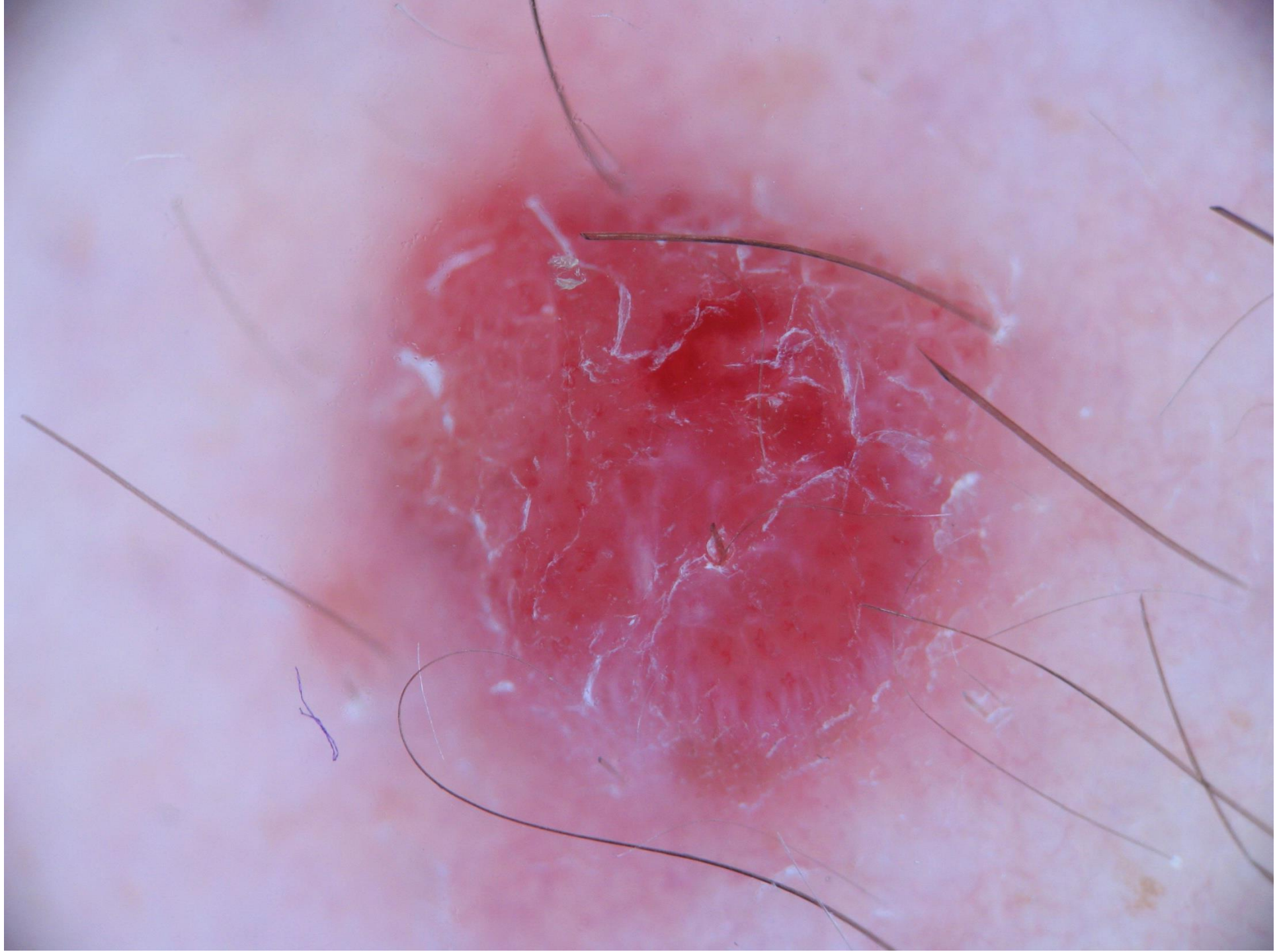
- Lived entire life in Queensland
- Had always been vigilant with sun protection
- No significant medical history
- No family history of melanoma
- Basically no moles

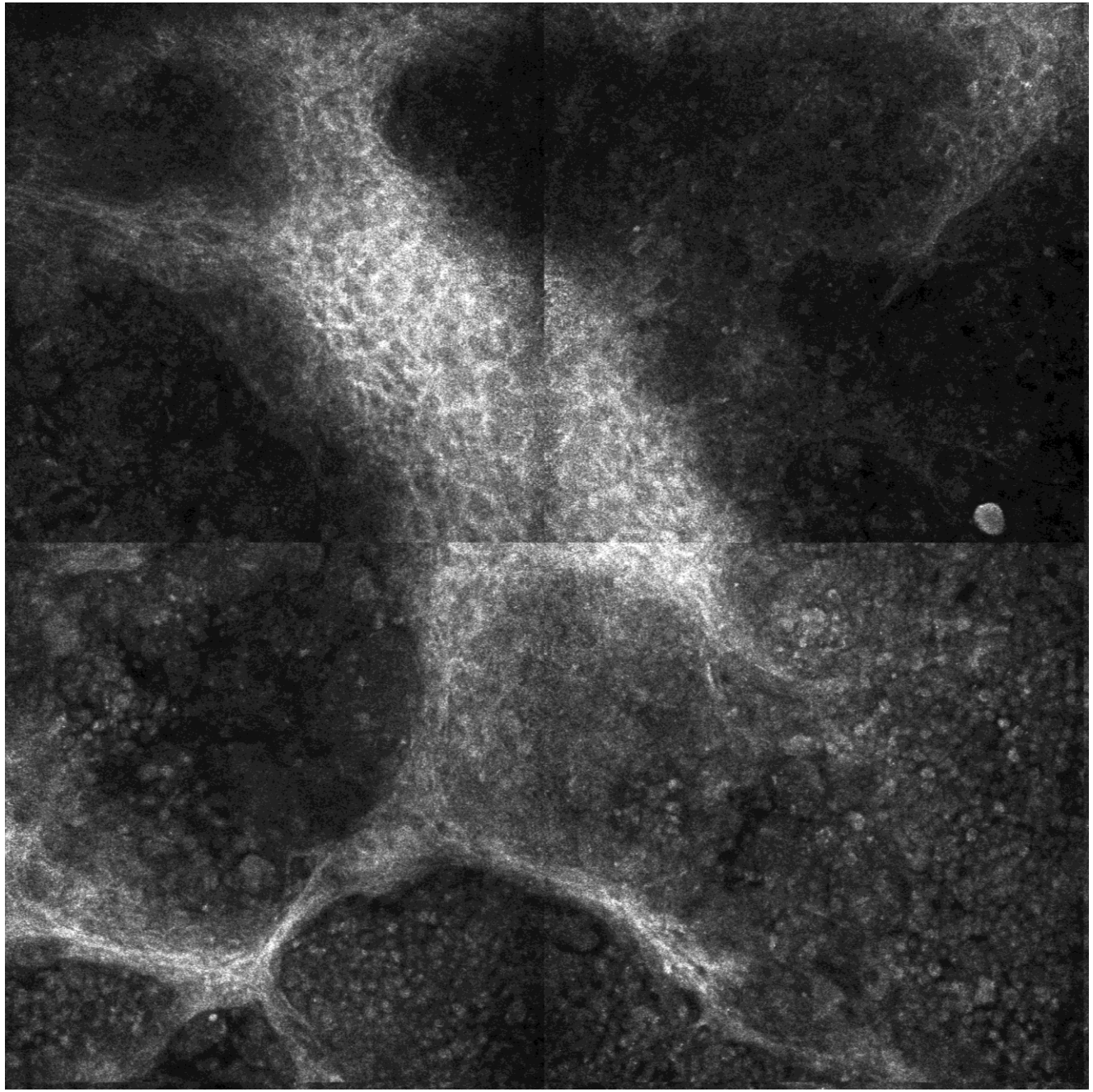
- 10mm x 7mm pink nodule on left lower leg
- Present for 2 years
- Growing for 6 months
- Frequently bled when shaved legs

(Causality Principle)

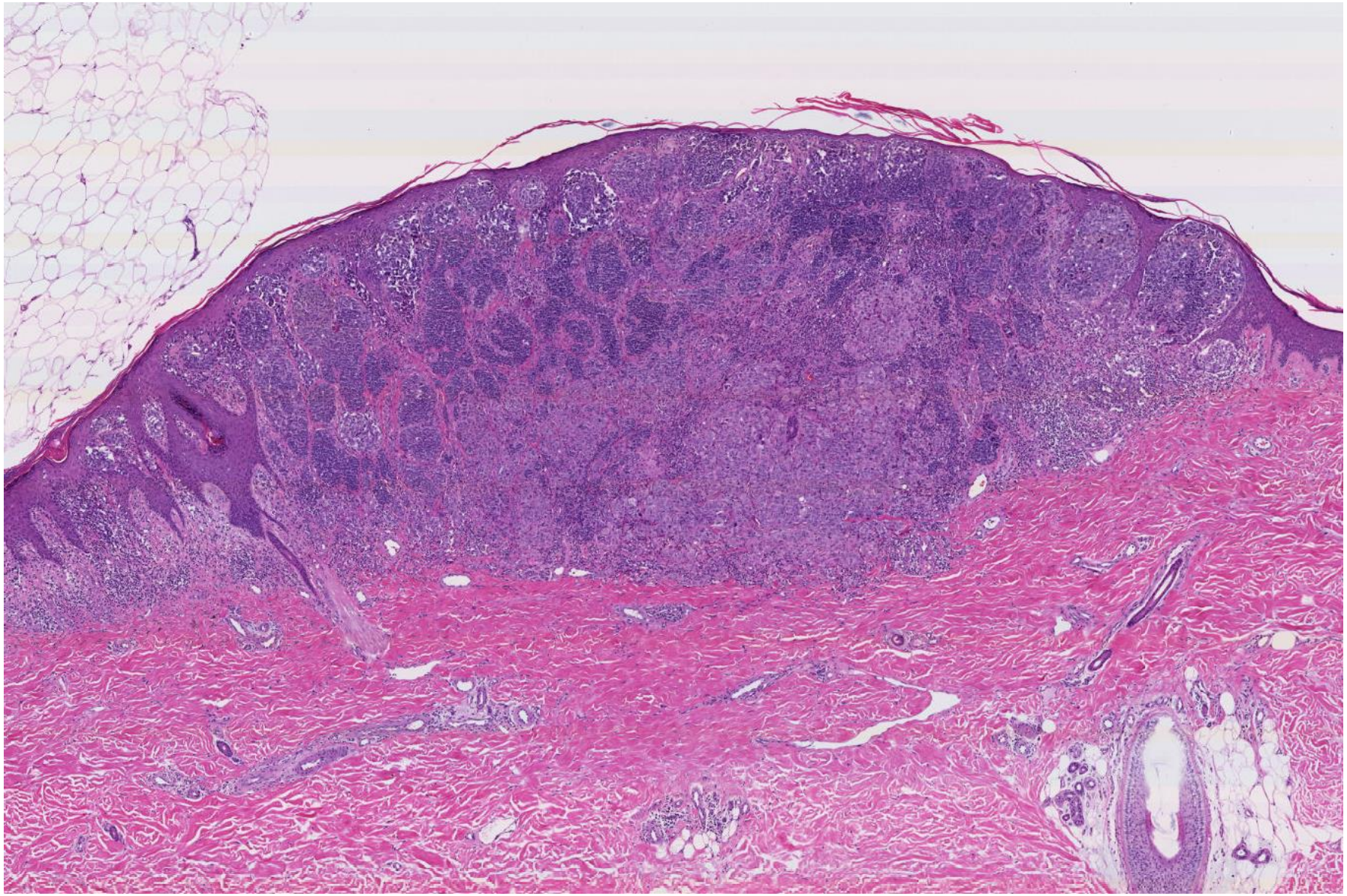








Wide spread large, bright nucleate cells varying in shape and size

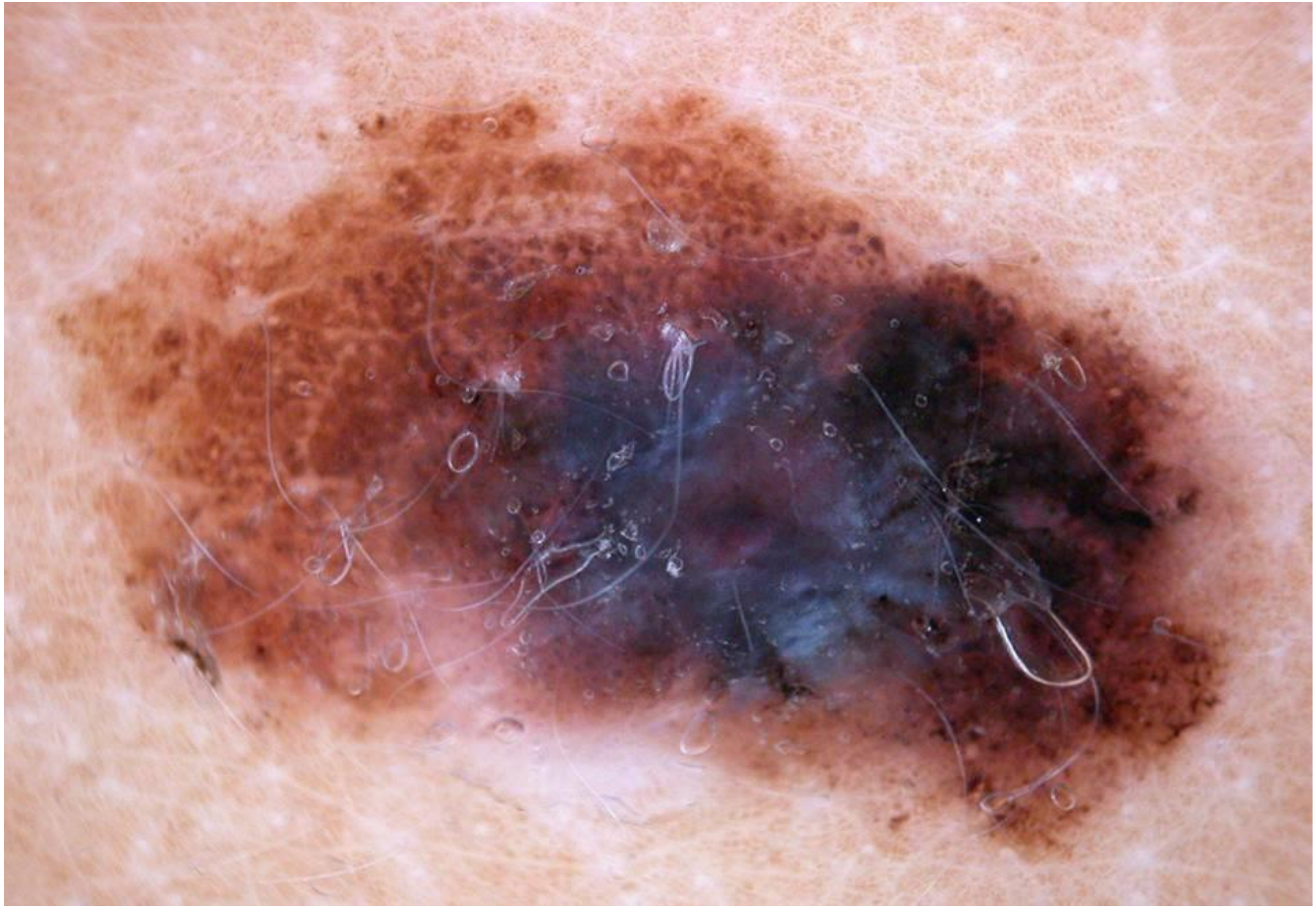


Nodular amelanotic melanoma; 1.95mm

Germline Genotyping

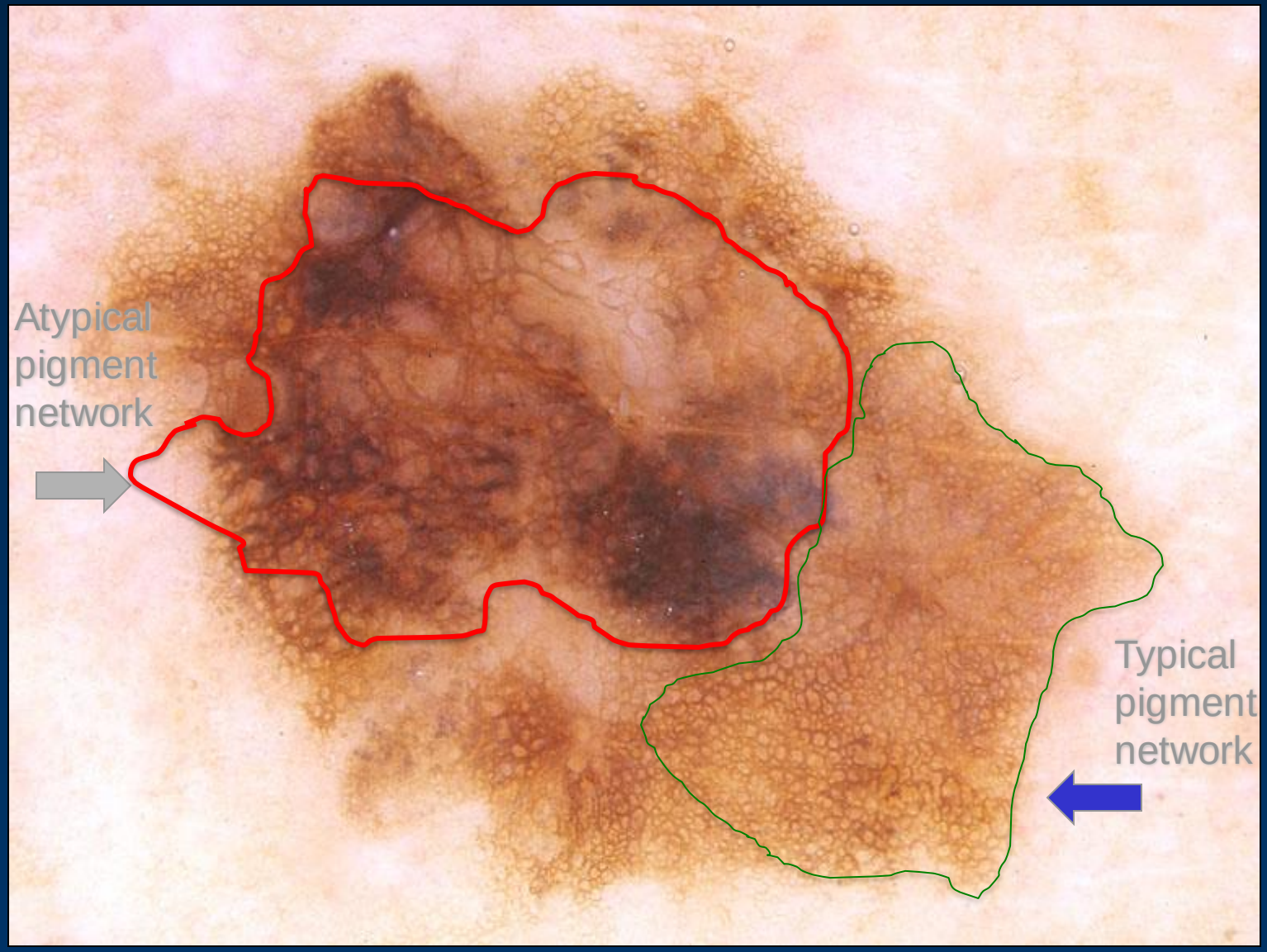
The existence of an amelanotic melanoma in an individual, who is a heterozygous carrier for the MC1R R160W and TYR R402Q alleles raises questions whether the colour of the melanoma was influenced by the individual's genotype or caused by another factor.

Curchin C et al. *Australasian Journal of Dermatology* (2012) 53, 291–294



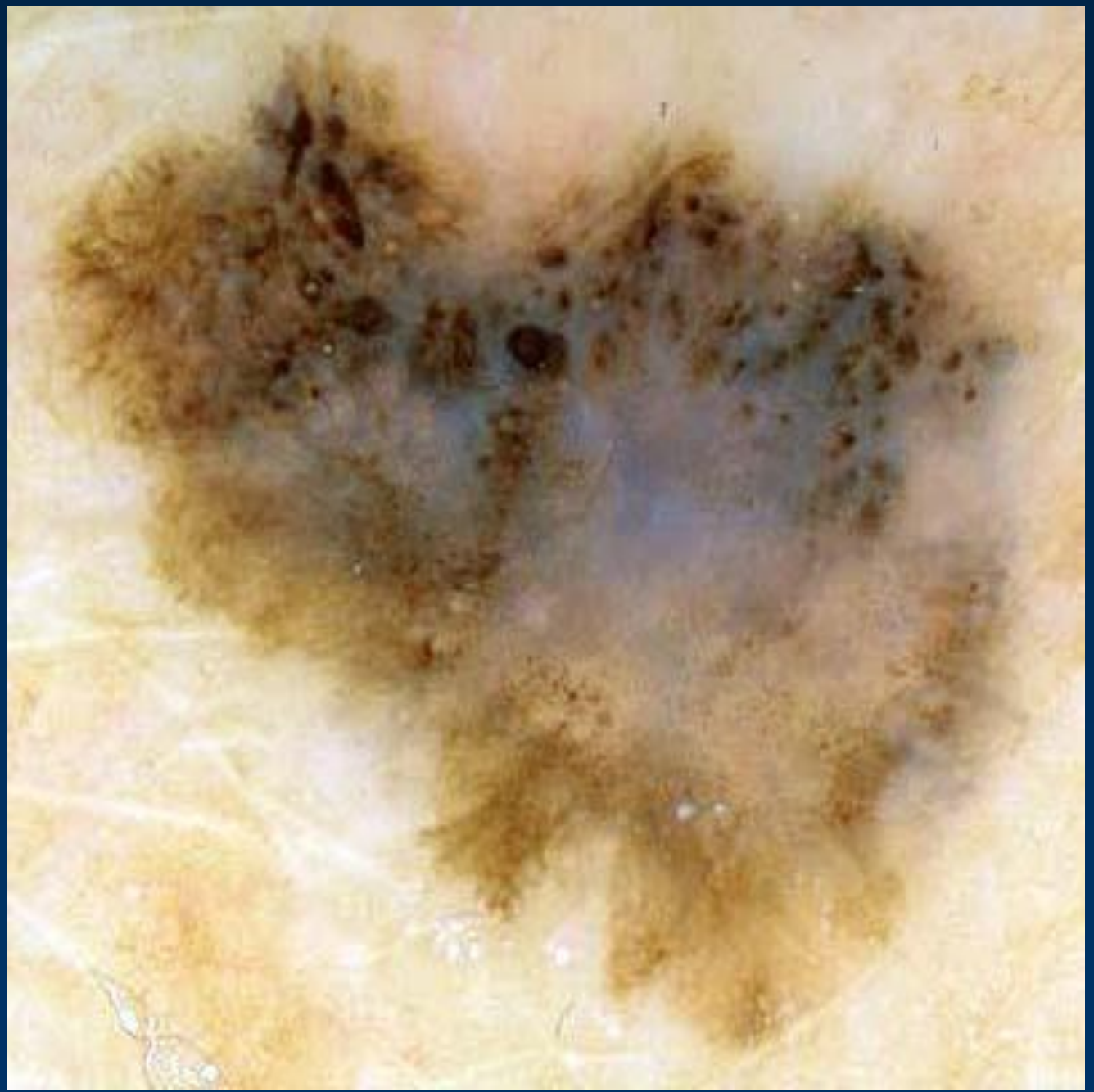
Melanoma-specific Dermoscopic Criteria -- I

- Atypical pigment network
- Irregular dots/ globules
- Irregular streaks
- Blue-whitish veil


Atypical
pigment
network
Typical
pigment
network

Melanoma-specific Dermoscopic Criteria -- I

- Atypical pigment network
- Irregular dots/globules
- Irregular streaks
- Blue-whitish veil

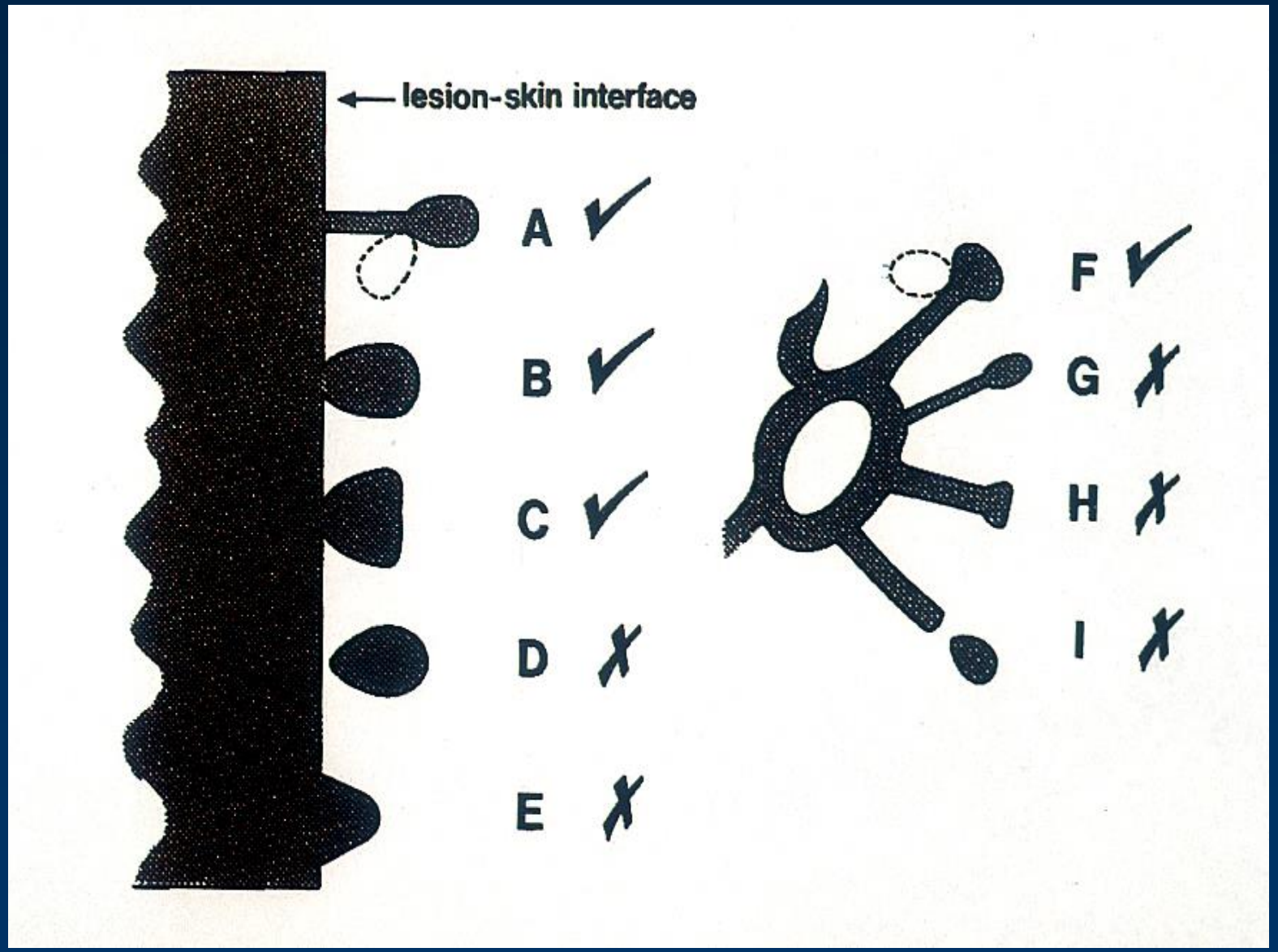


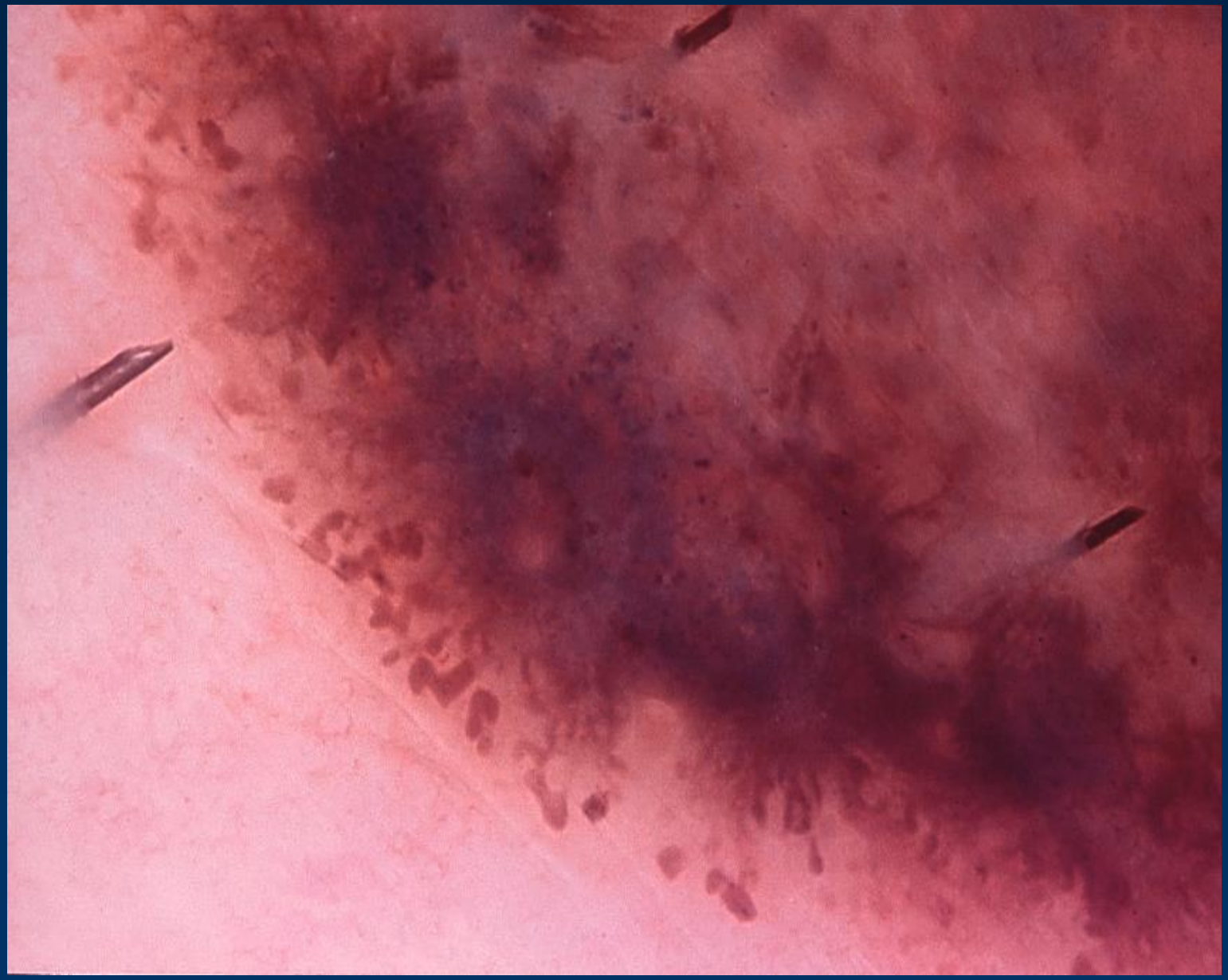
Irregular black dots/globules within a melanoma

Melanoma-specific Dermoscopic Criteria -- I

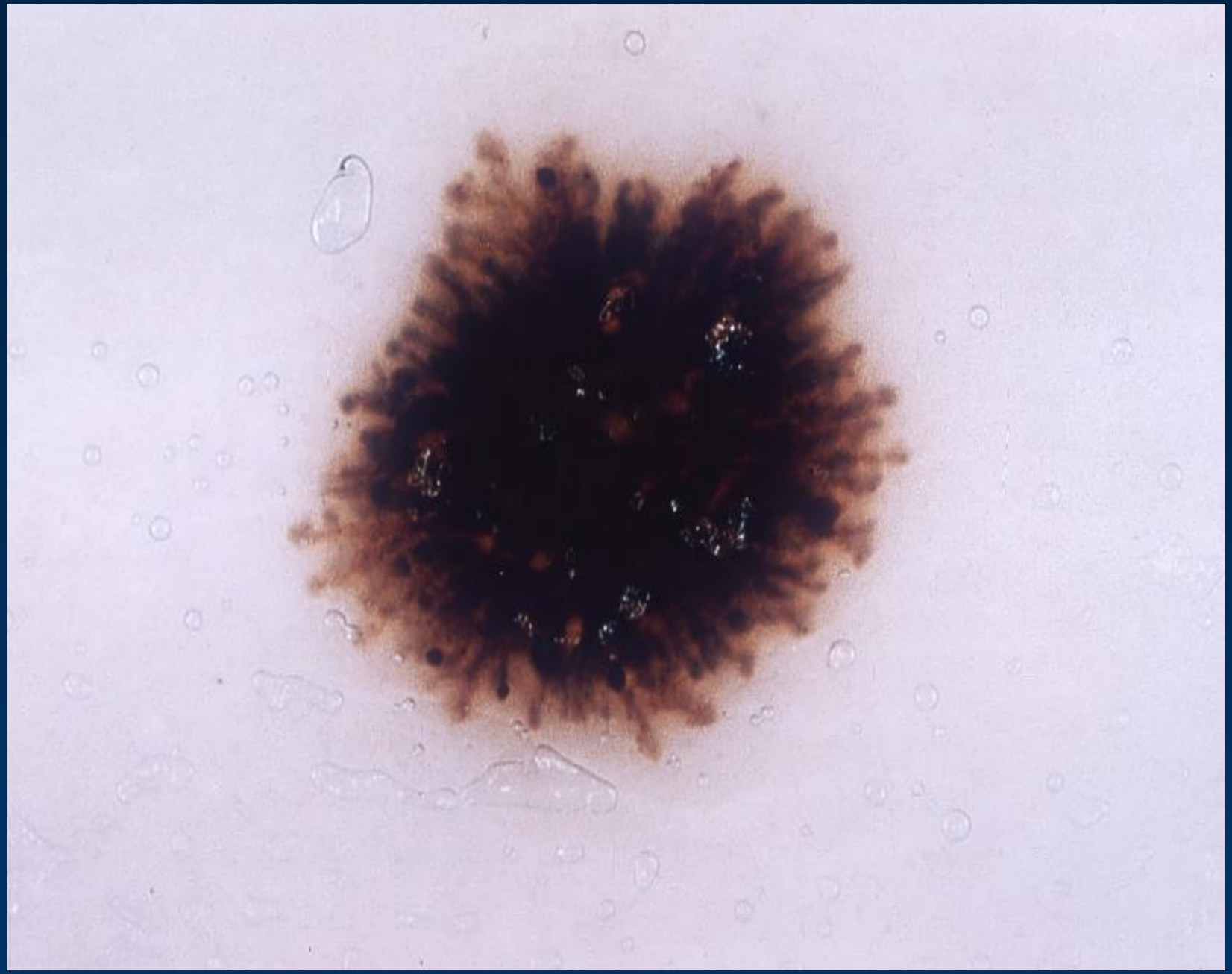
- Atypical pigment network
- Irregular dots/globules
- Irregular streaks
- Blue-whitish veil

Streaks at the periphery of a superficial melanoma

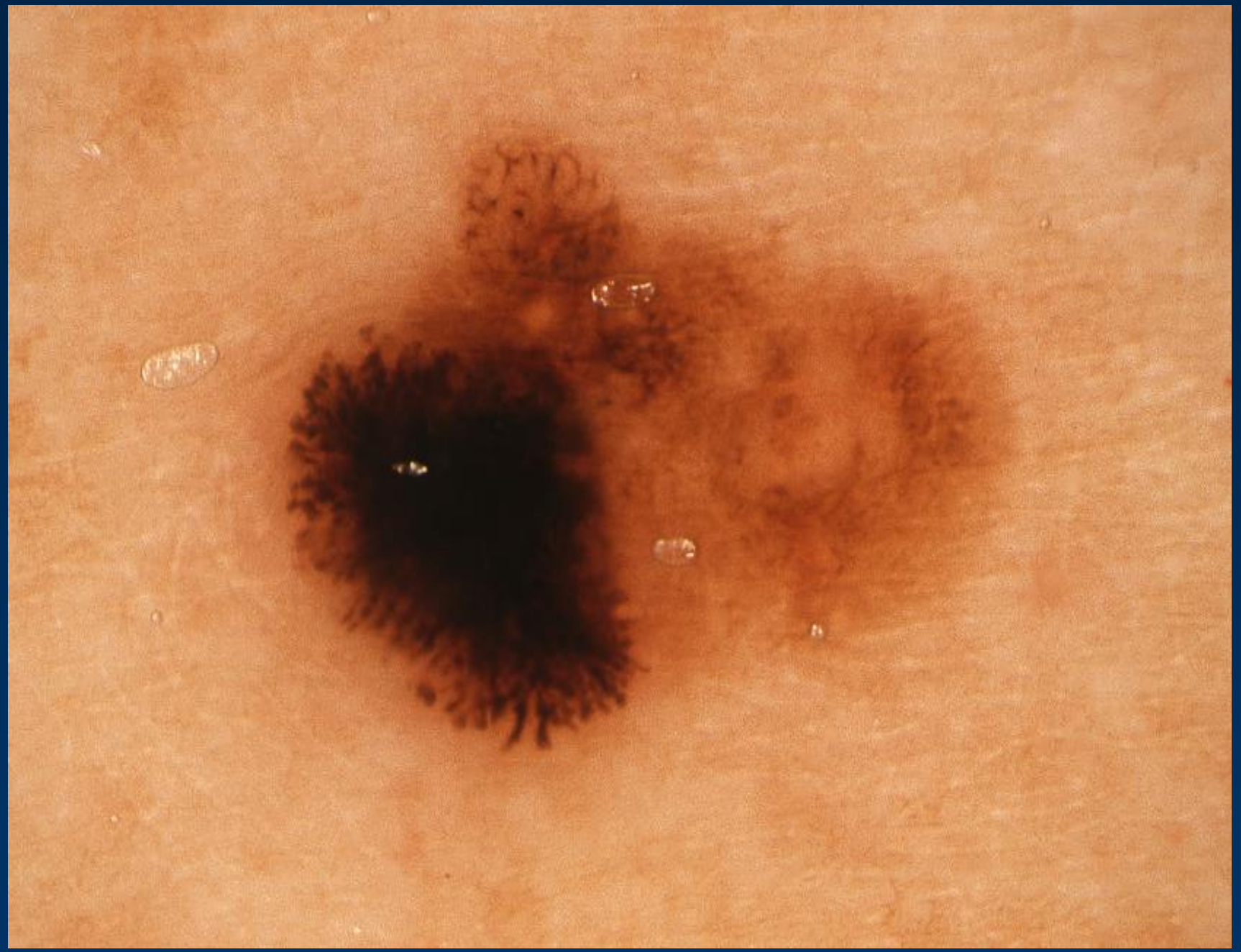

lesion-skin interface
A
B
C
D
E
F
G
H
I



The architectural distribution of dermoscopic features is of uppermost importance



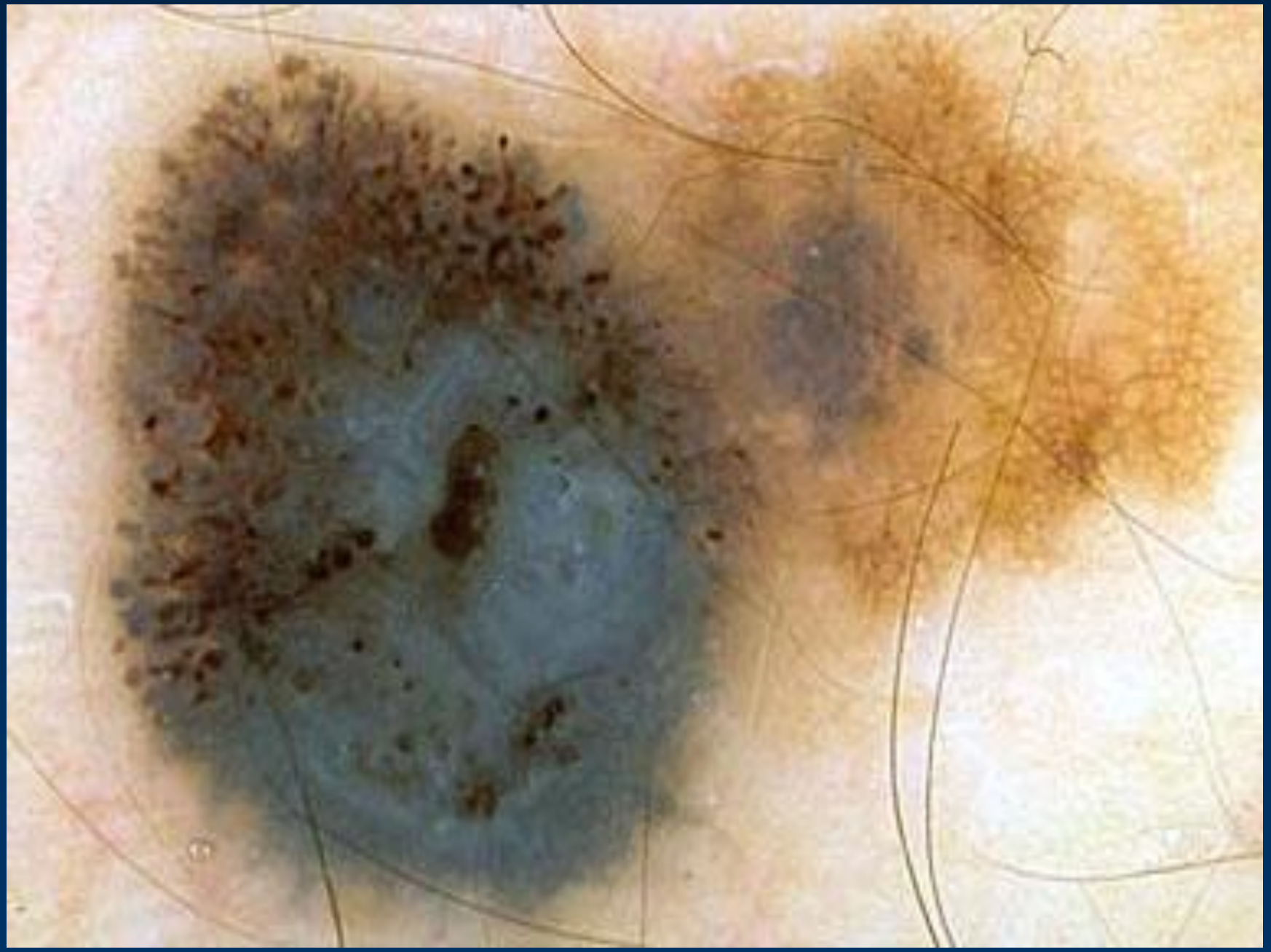
Reed nevus with numerous streaks in a radial arrangement



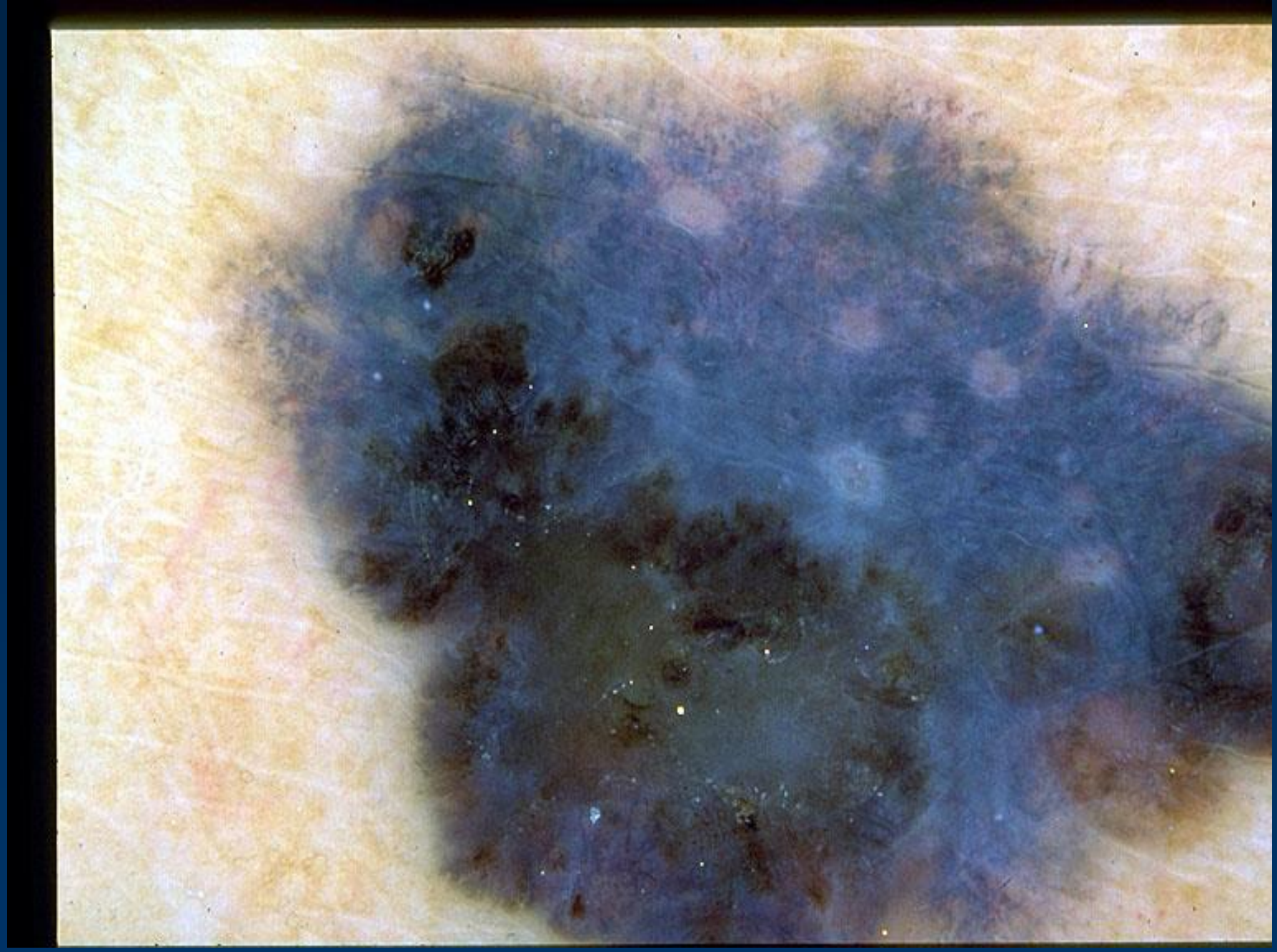
Melanoma characterized by streaks probably within a pre-existing nevus

Melanoma-specific Dermoscopic Criteria -- I

- Atypical pigment network
- Irregualr dots/globules
- Irregular streaks
- Blue-whitish veil



Blue-whitish veil – irrregular, confluent, gray-blue to whitish-blue area



Melanoma with stereotypical example of blue-whitish veil

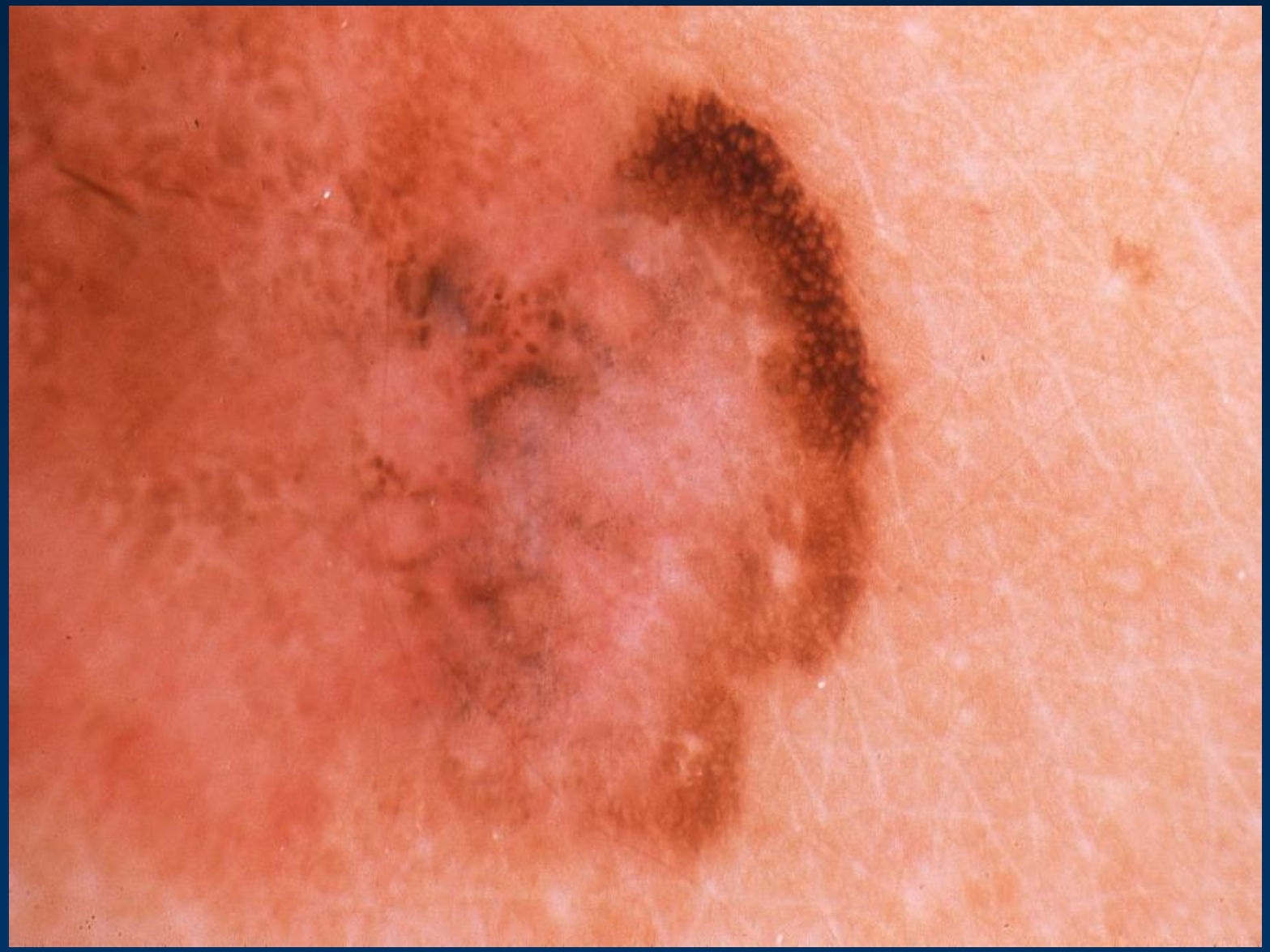
Blue-whitish veil sometimes is indistinguishable from regression structures

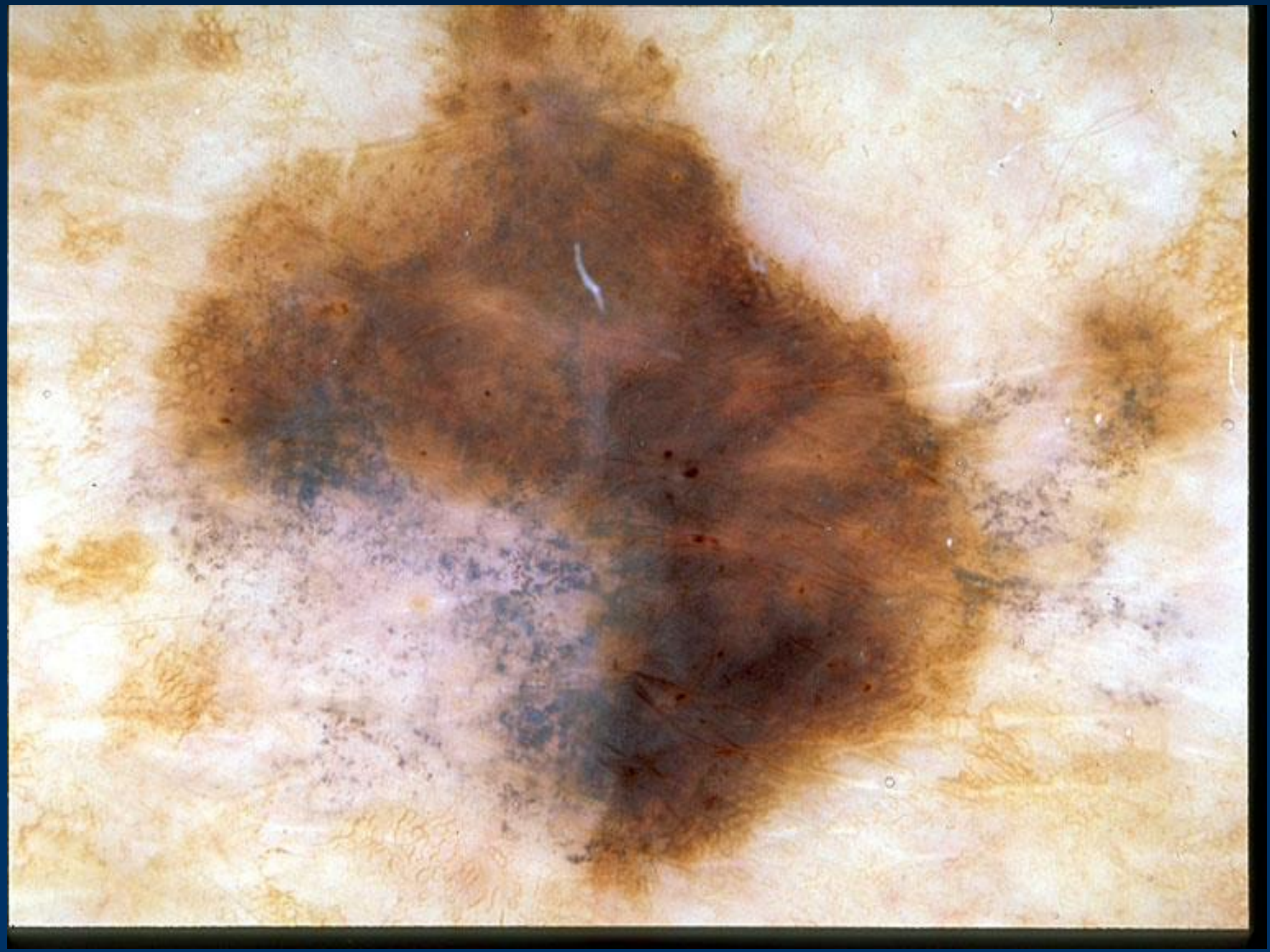
Melanoma-specific Dermoscopic Criteria -- II

- Regression structures
- Vascular structures

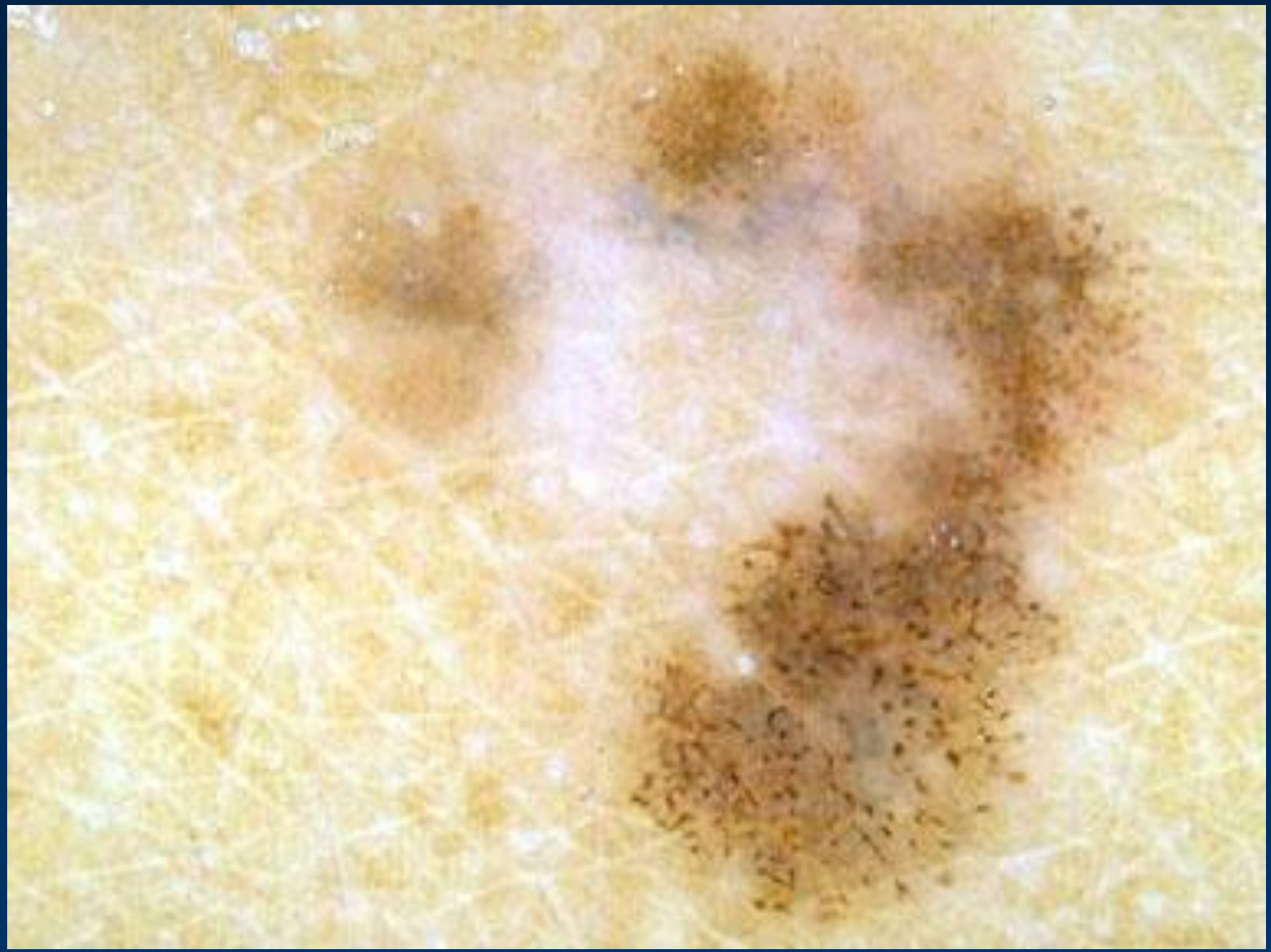
Regression Structures

- White areas -- Fibrosis
- Blue areas -- Melanosis
- Combination of both





Regression structures characterized by white and blue areas in a melanoma

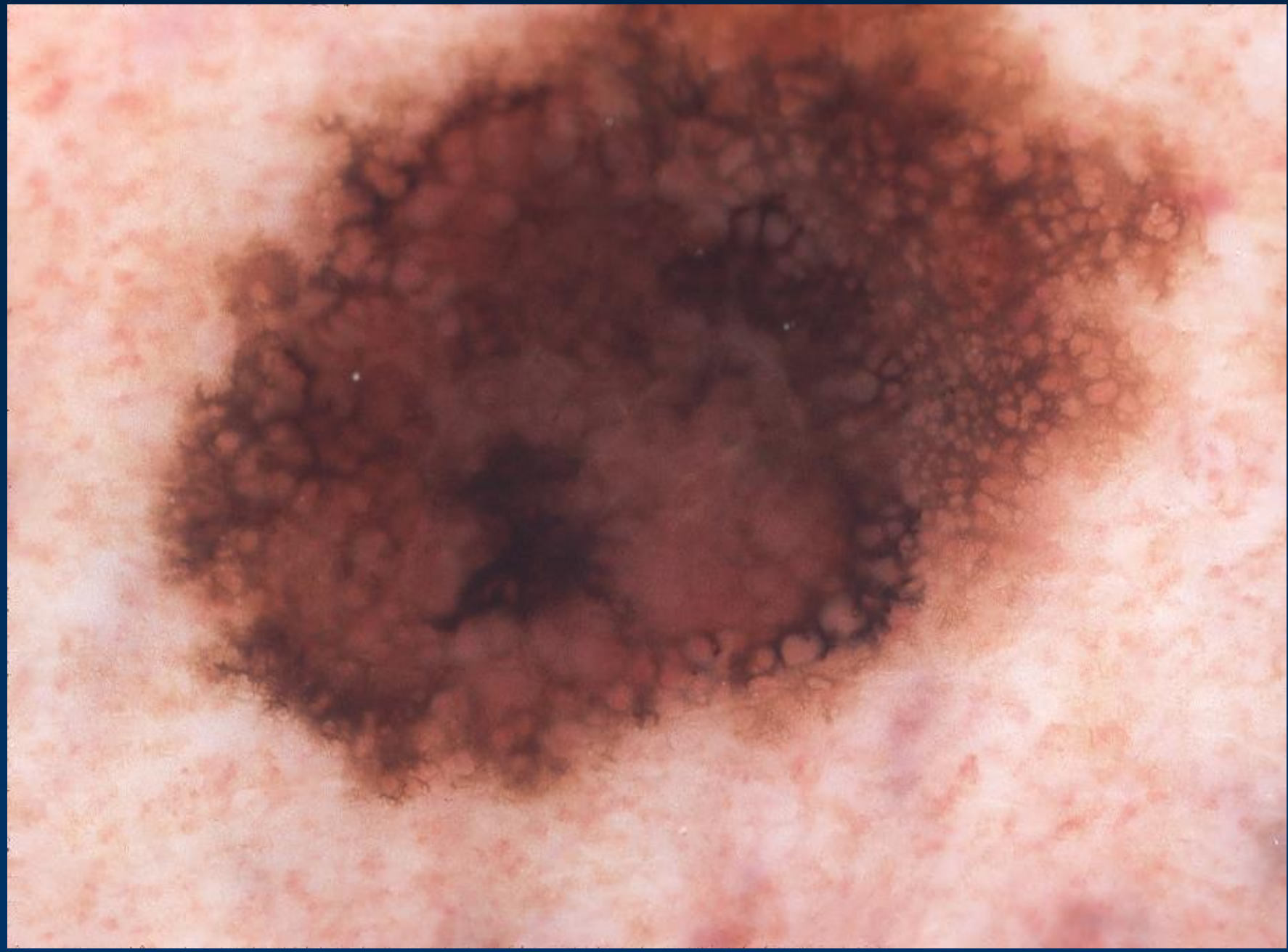


White areas and subtle blue areas in a regressive melanoma

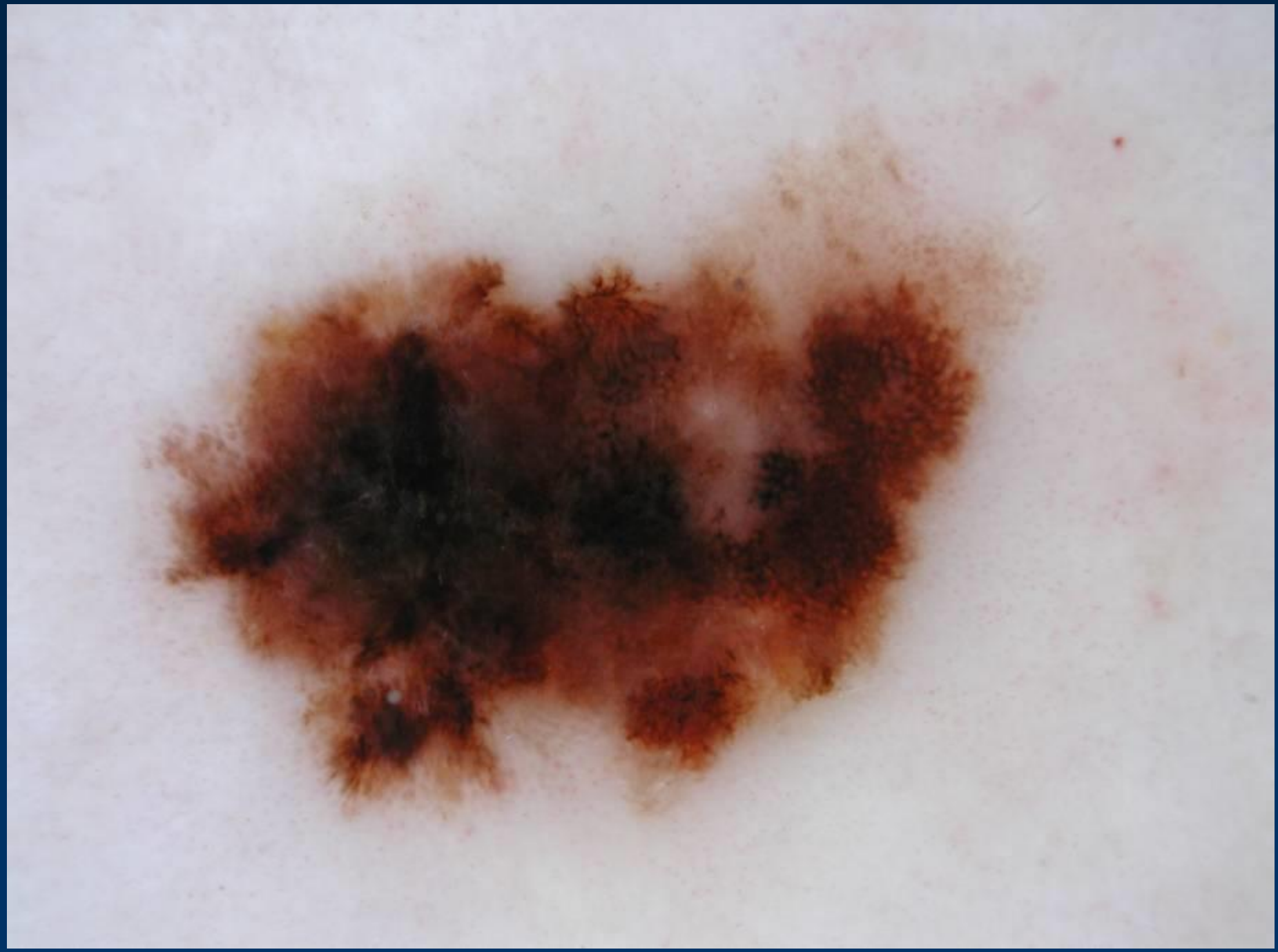
Melanoma-specific Dermoscopic Criteria for Melanoma in Situ and Early Invasive Melanoma

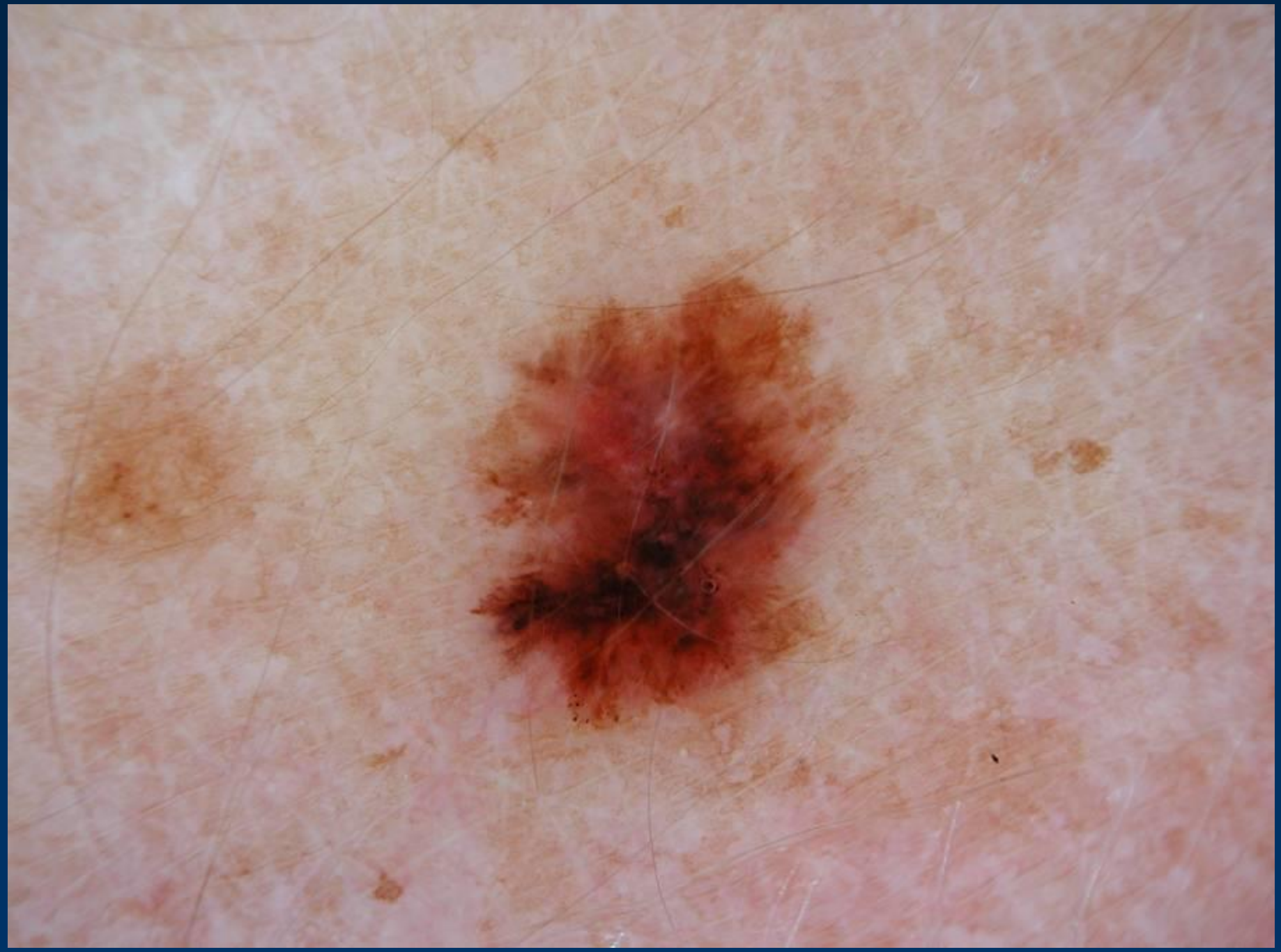
- Atypical pigment network
- Irregular dots/globules
- Irregular streaks
- Regression structures
- Blue-whitish veil

Dermoscopic asymmetry -- most important clue for melanoma diagnosis!



Dermoscopic asymmetry, atypical pigment network and irregular streaks

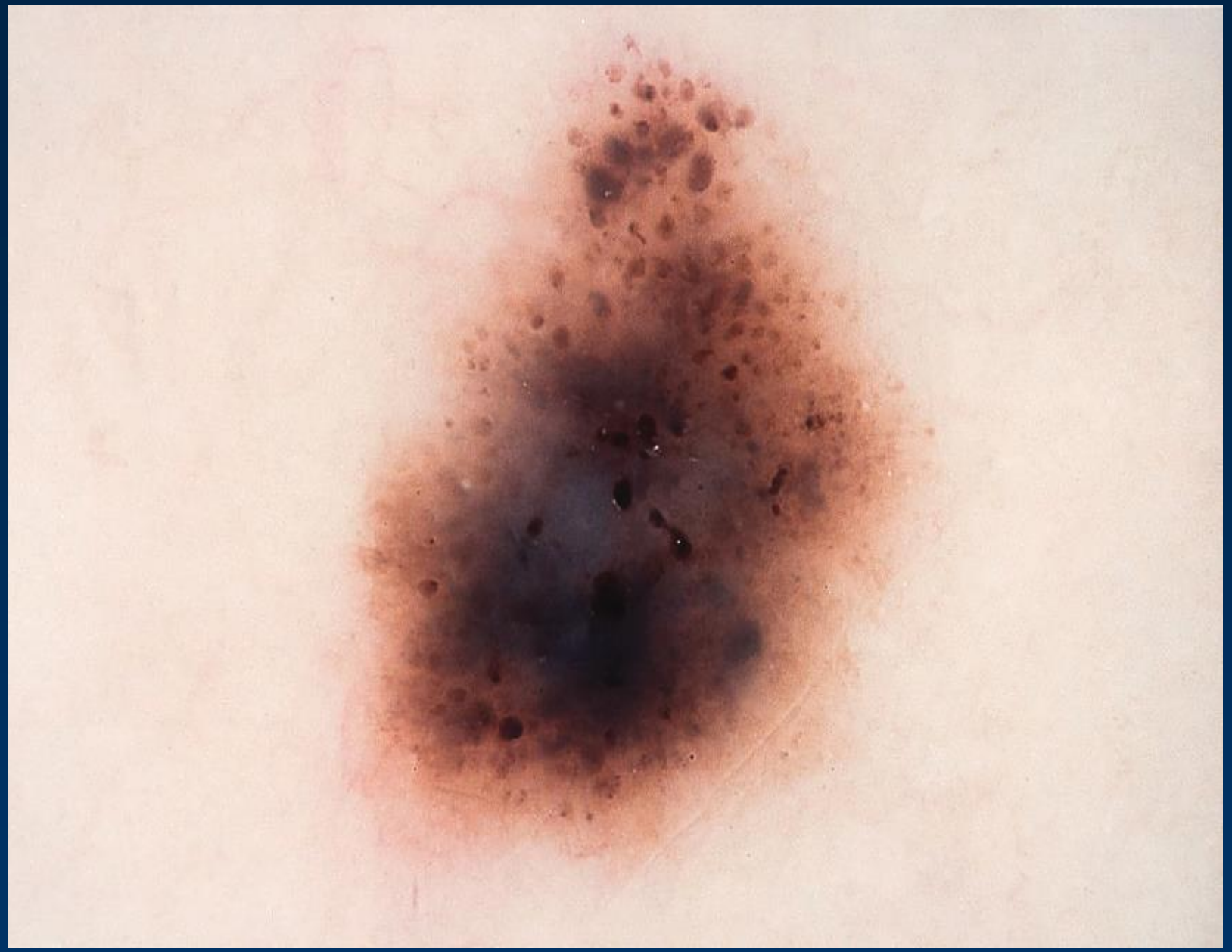




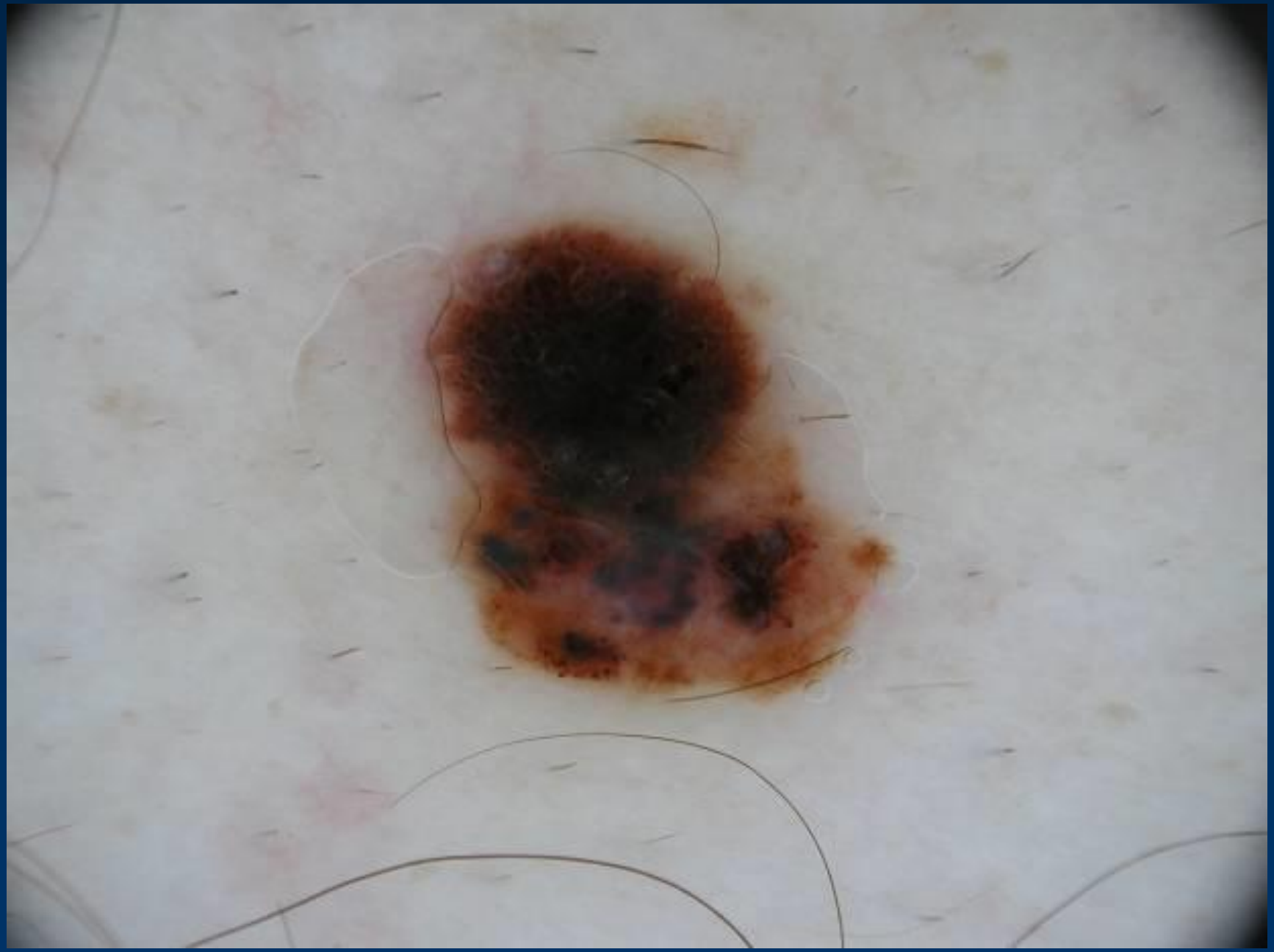
Melanoma-specific Dermoscopic Criteria for Intermediate and Thick Melanoma

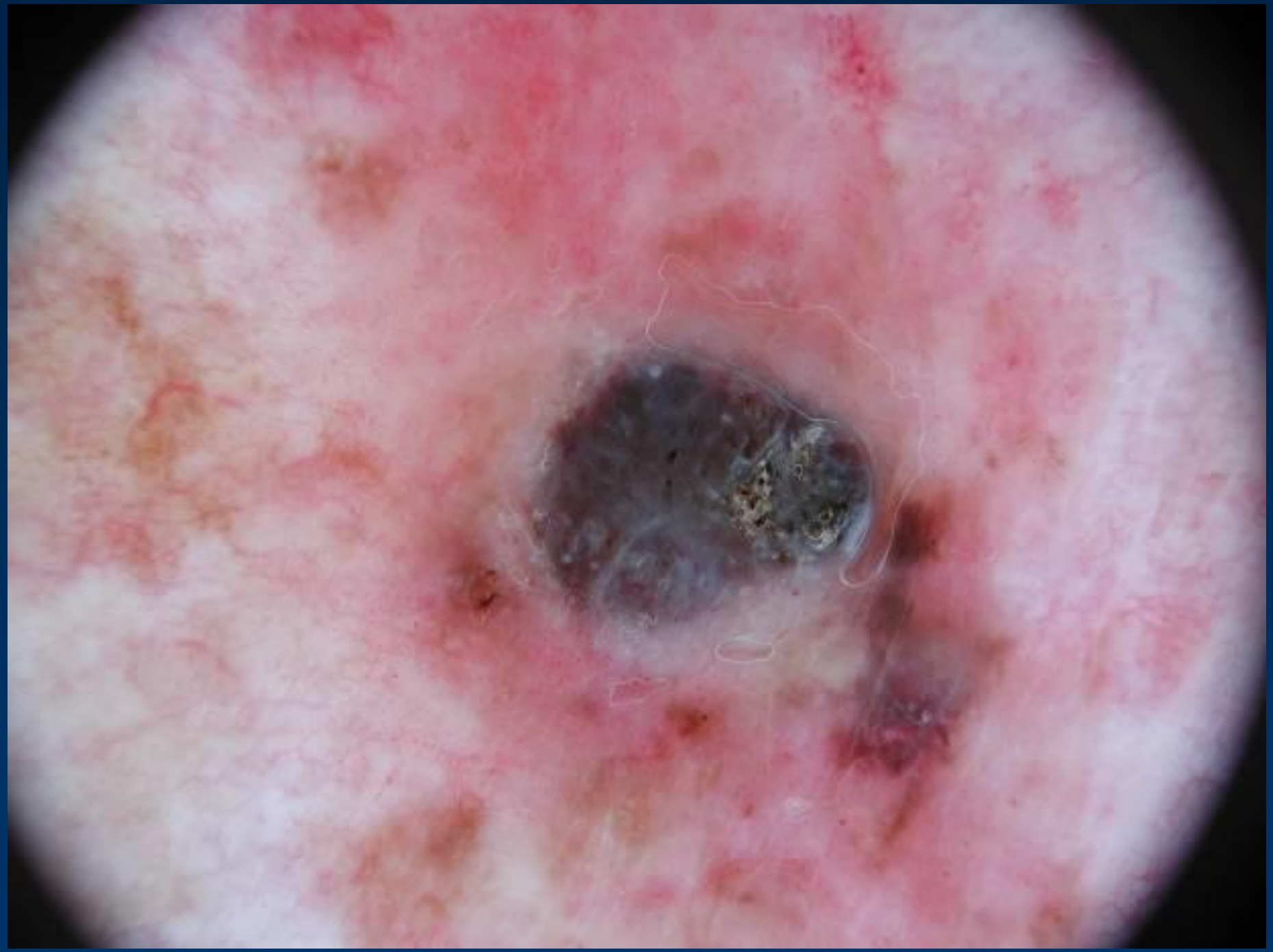
- Blue-whitish veil
- Irregular dots/globules
- Irregular streaks
- Atypical pigment network
- Vascular pattern
- Regression structures

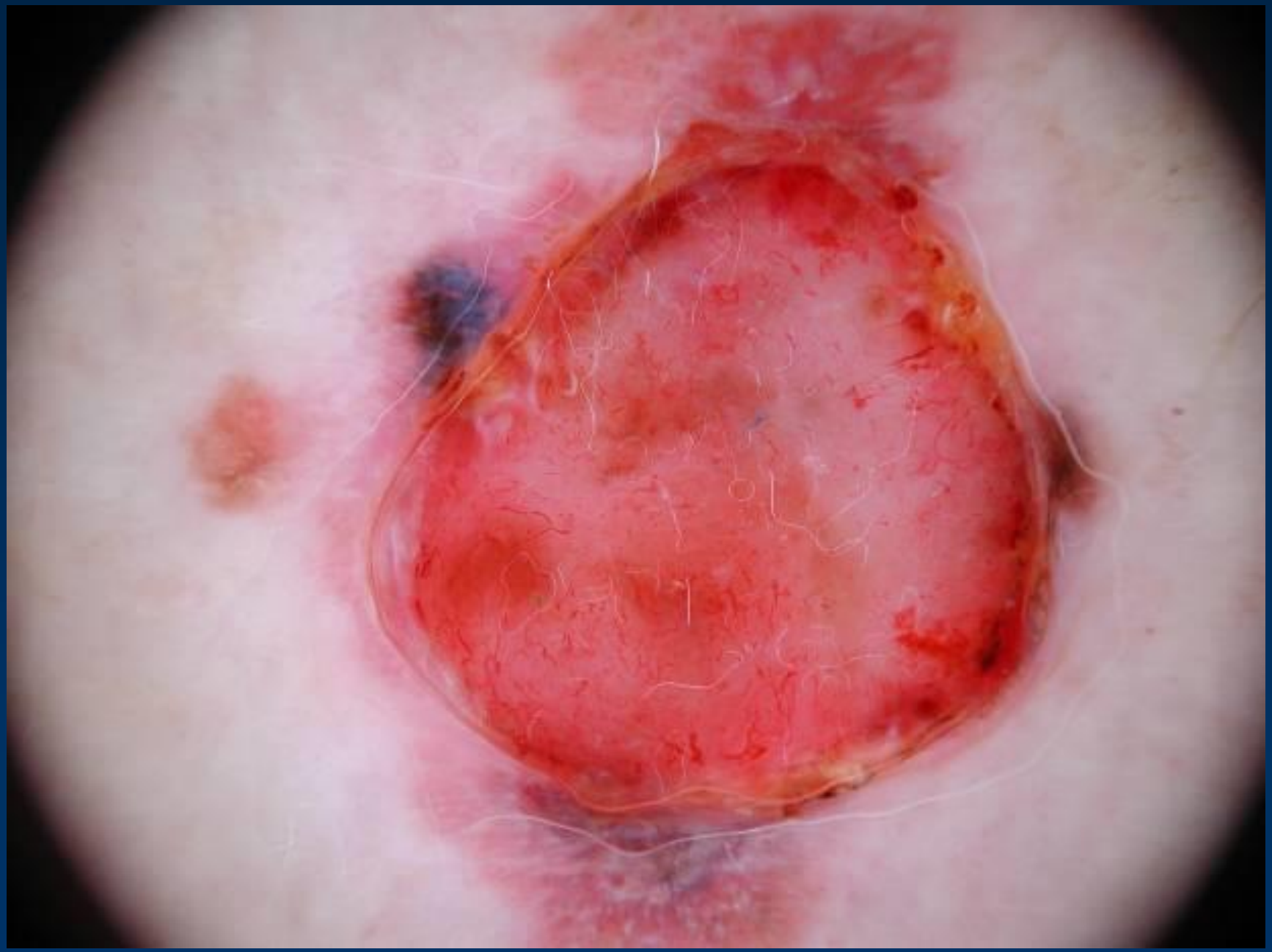
Dermoscopic asymmetry -- most important clue for melanoma diagnosis!



Dermoscopic asymmetry, blue-whitish veil and irregular dots/globules

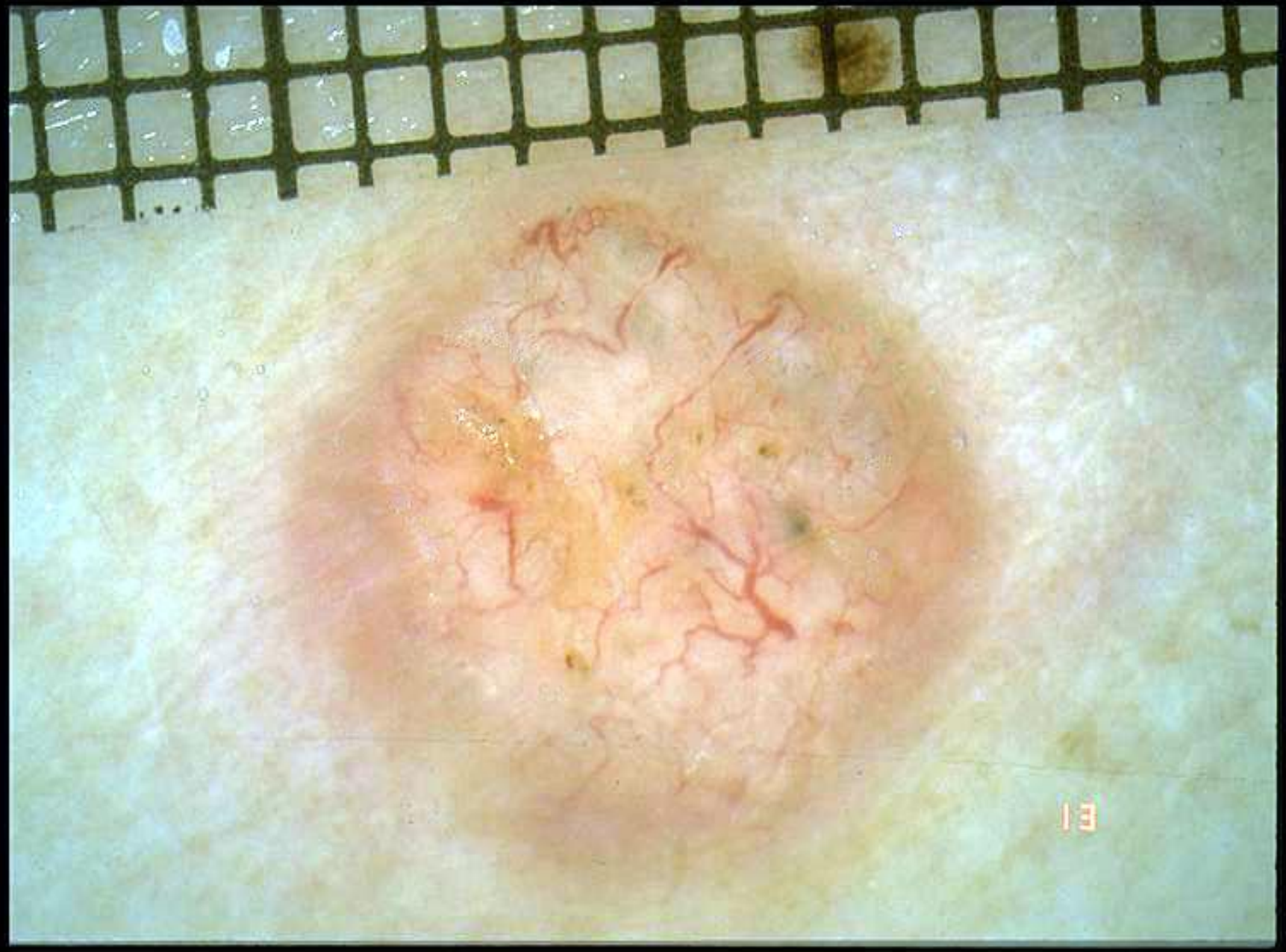




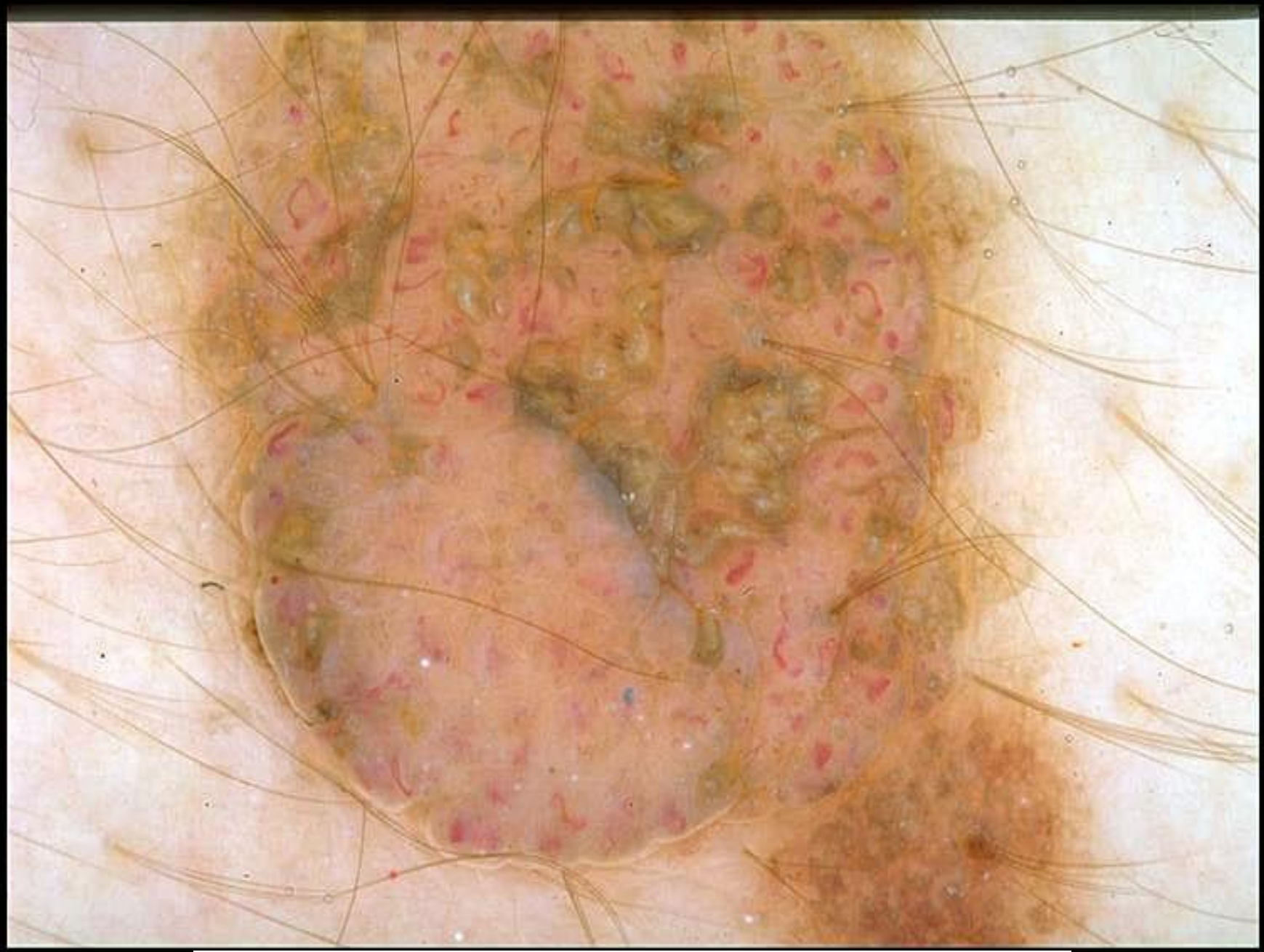


Vascular Structures

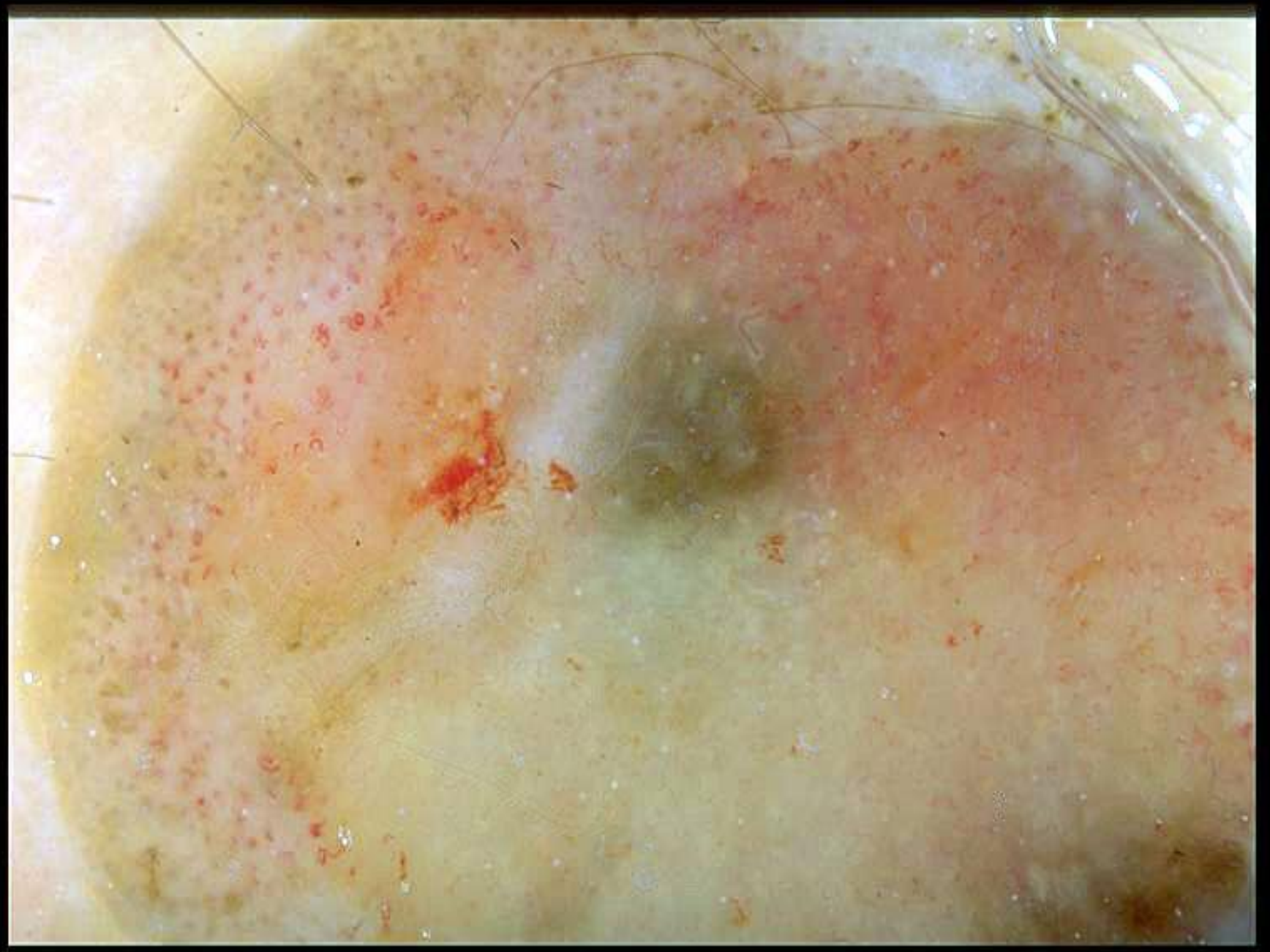
- Arborizing vessels – basal cell carcinoma
- Comma vessels – papillomatous dermal nevus
- Dotted vessels – nevus, melanoma
- Hairpin vessels – epithelial tumors, melanoma
- Linear irregular vessels – melanoma



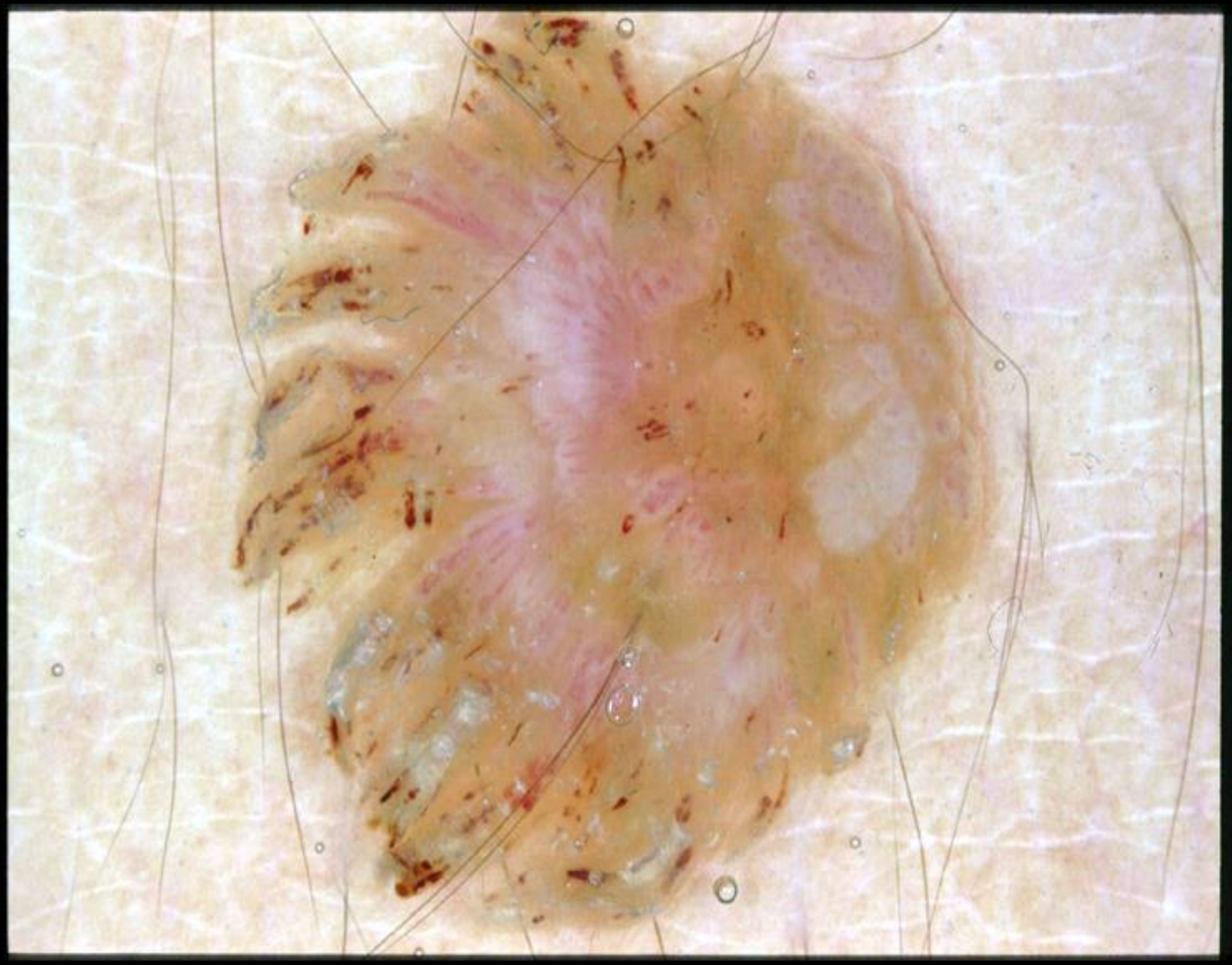
Arborizing vessels in a nodular basal cell carcinomas



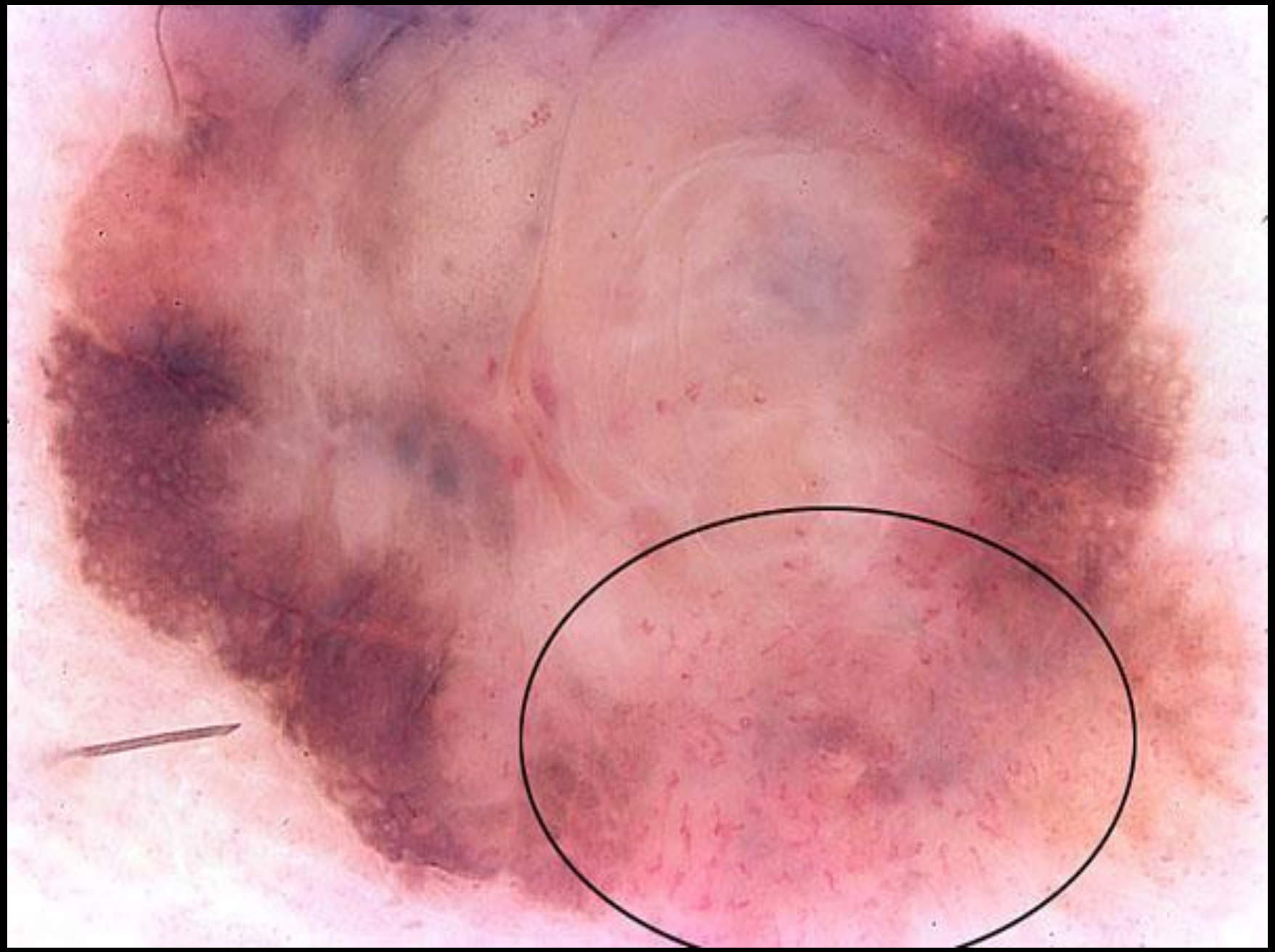
Comma vessels in a papillomatous (Unna) nevus



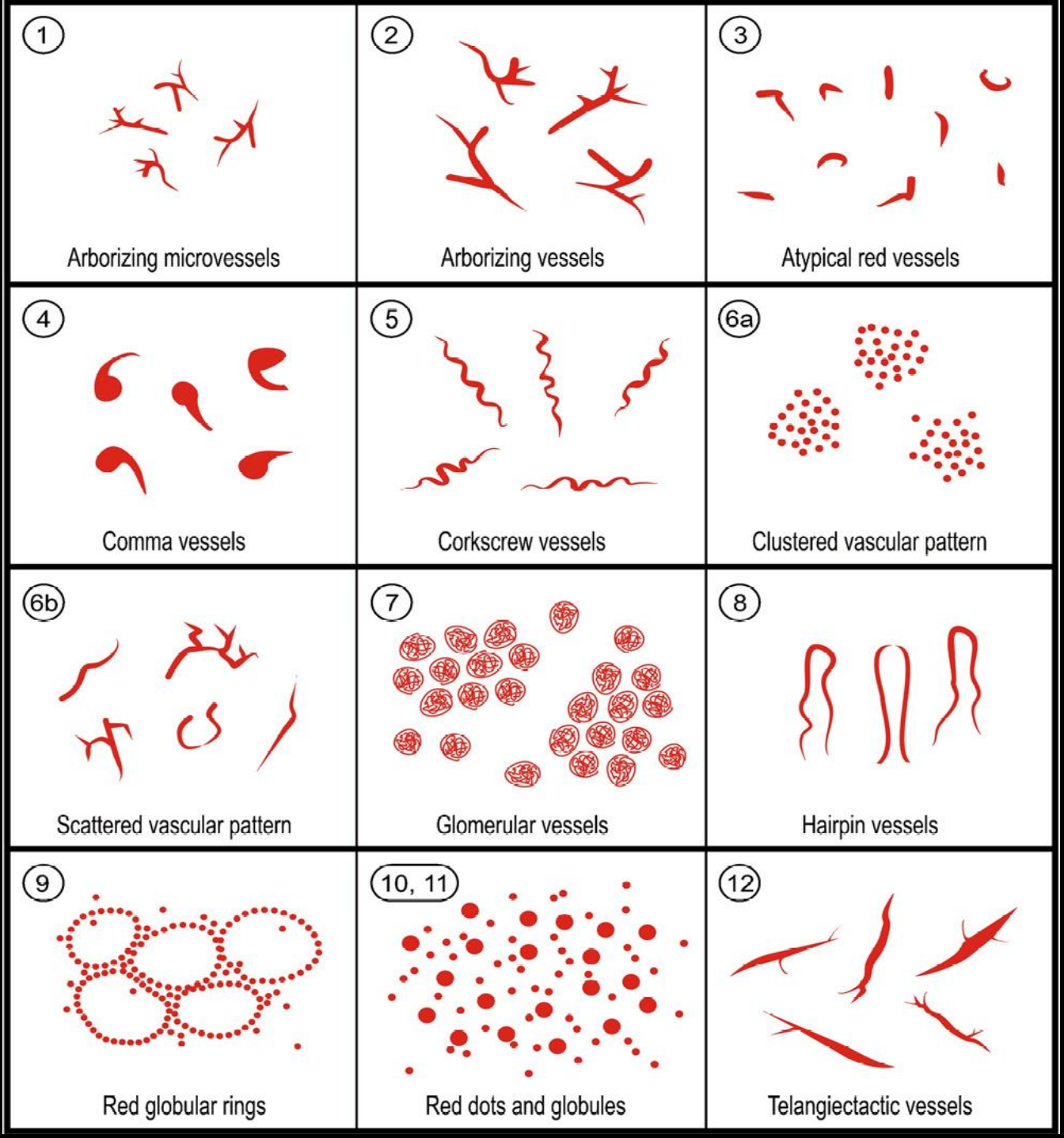
Numerous dotted vessels in a hypomelanotic nodular melanoma

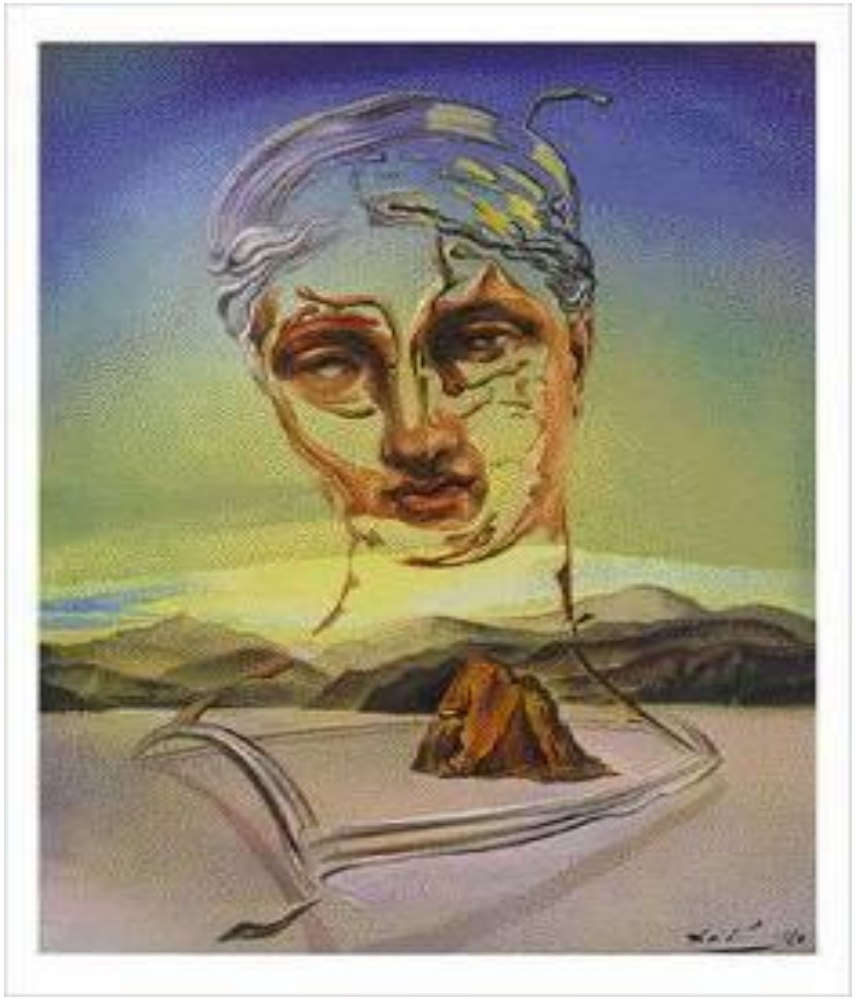


Hairpin vessels in an irritated seborrheic keratosis



Linear irregular vessels in a melanoma


1
Arborizing microvessels
2
Arborizing vessels
3
Atypical red vessels
4
Comma vessels
5
Corkscrew vessels
6a
Clustered vascular pattern
6b
Scattered vascular pattern
7
Glomerular vessels
8
Hairpin vessels
9
Red globular rings
10, 11
Red dots and globules
12
Telangiectactic vessels



‘The eye sees what the mind knows‘

YOU'RE INVITED TO

9th World Congress of MELANOMA

18–21 October 2017, Brisbane Australia

Cancer Council Queensland

brisbane australia's new world city