Dermoscopy Workshop

Hands-on Experience with a Simple,
Effective Tool for Examining Skin Lesions

William “Mac” Bowen MD 7/22/22
Family Physician, Christus St. Vincent
UNM Santa Fe Family Medicine Residency Program Director
NMAFP President-Elect

Disclosures

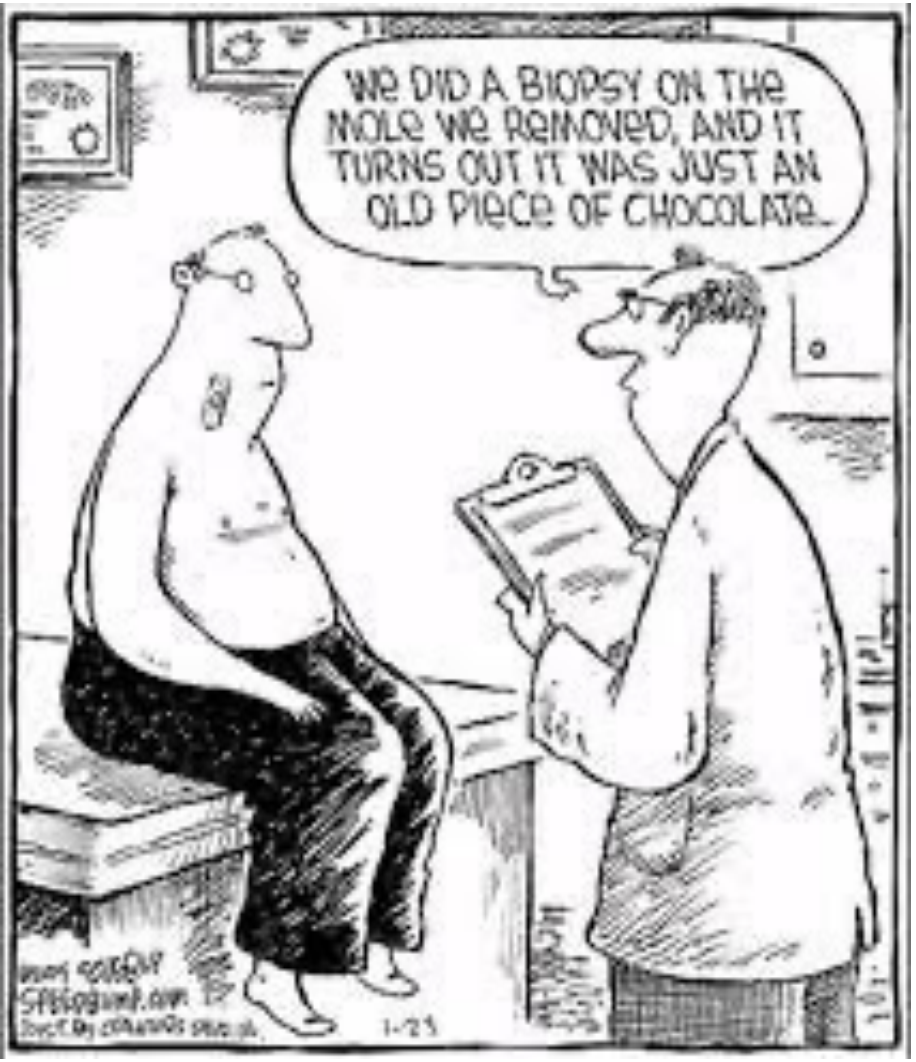
I am a previous student of the TADA workshop at STFM National Conference 2018 as well as the Cardiff University Introduction to Dermatoscopy course 2019, an enthusiast but no expert

I own a DermLite DL4, which I love, but don’t recommend any product specifically and don’t care which you buy

This didactic will not make you an expert, but is meant to stoke interest in the method and gain familiarity with the technology

Learning Objectives

- 1. Review the utility of dermoscopy in the diagnosis of skin cancer
- 2. Familiarize yourself with some principles and terminology of dermoscopy
- 3. Learn a simple, evidence-based algorithm to use in evaluating skin neoplasms
- 4. Get hands on experience with a dermatoscope
- 5. Please note we will be examining each other's skin for practice. Do not feel compelled to. This is not meant for clinical diagnosis of any of your skin lesions. Follow up with your family doctor if you have a suspicious neoplasm.



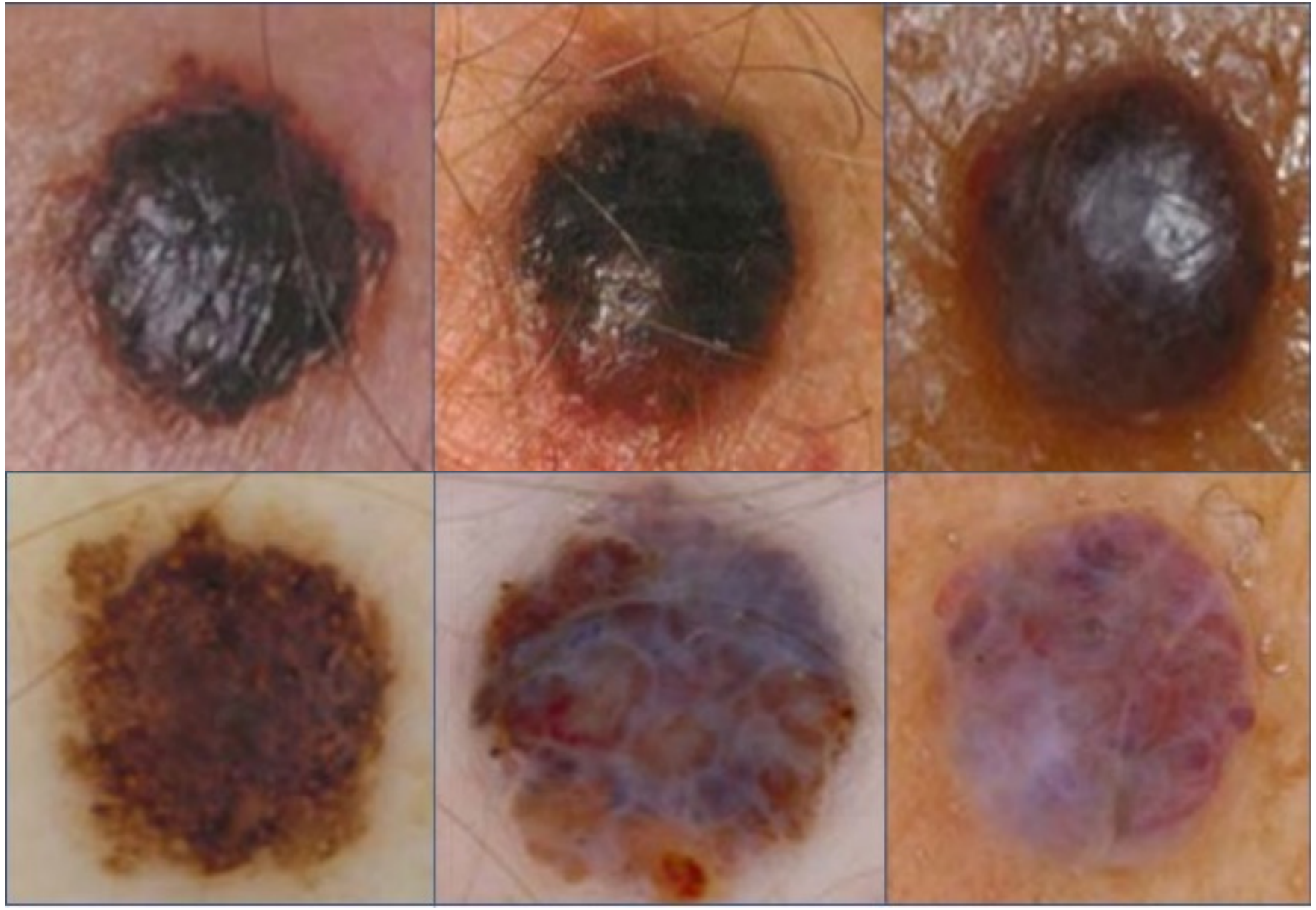
In Vivo noninvasive diagnostic technique magnifying the skin allowing for better visualization of colors and structures in the epidermis, dermo-epidermal junction, and papillary dermis

Fluid can be used to reduce surface light reflection, render stratum corneum transparent (classically using oil, lubricant, water, alcohol)

Cross-polarized light can minimize refraction issues without contact or fluid layer

How Good Are We At Diagnosing Skin Cancer?

- ABCDE developed for lay public – dysplastic nevi, nodular melanoma
- 63% pts with newly diagnosed melanoma had visited PCP within a year, PCPs fail to diagnose up to 1/3 of skin cancers
- There is a dearth of teaching skin cancer screening in GME
  - In one study, 76% of PC residents not trained in SCE, 57% never practiced!
- Meta-analysis diagnostic odds ratio using dermoscopy 4.6 times higher compared to naked eye
  - Sensitivity = 90% D v 71% NE
  - Specificity = 90% D v 81% NE
  - Dramatic reduction in unnecessary excision rates
    - Benign/Malignant ratio of excised melanocytic lesions reduced from 14:1 to 4:1 or better
    - In an RCT combining dermoscopy and digital monitoring 64% reduction in referrals/excisions of benign pigmented lesions



How Much Time Does It Add?

- Increased time of Clinical Skin Exam from 72s to 142s
  - Dermoscopy duration increased with number of lesions
  - Not so for naked eye examination
- To screen or not to screen? USPSTF concluded 2016 Insufficient evidence, update in progress, controversy exists
  - High risk individuals?
- 2017 study showed only 8% US PCPs using dermatoscope, more prevalent in Australia, UK

How Much Training Do I Need?

- As little as a 60 minute workshop has been shown to enhance post-test sensitivity for skin cancer identification
  - Resources at end of slide deck range from self paced online, paced online with expert tutors, multi-day workshops
- Many different systems/algorithms (ABC, Menzies, 7 point rule, CASH, Chaos and Clues, BLINK, 2-Step)
- It is an adjunct to your clinical judgement…when in doubt, cut it out (or refer)!!!
- Save pictures to record or encrypted device with patient consent and compare to histopathology to refine your acumen

TADA - https://sites.psu.edu/dermoscopy/

PennState Online Dermoscopy Training

Just another Sites At Penn State site

HOME | TADA PRETEST TEACHING CASE ANSWERS | TADA POSTTEST TEACHING CASE ANSWERS | TADA DISORGANIZED CASES | TADA ORGANIZED CASES | TADA MELANOCYTIC NEVI | SEBORRHEIC KERATOSIS | DERMATOFIBROMA | ANGIOMA | ADDITIONAL TADA PRACTICE

TADA Pretest Teaching Case Answers

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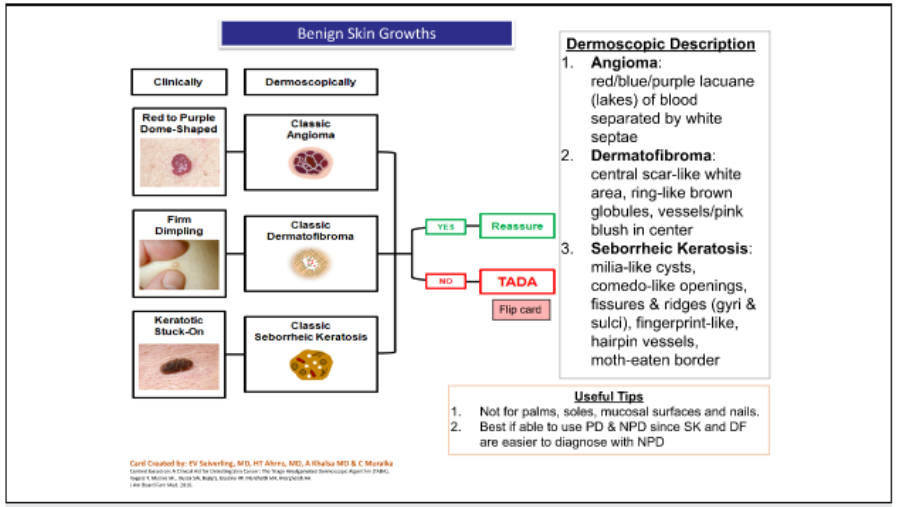

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Dermoscopy Two Step Algorithm

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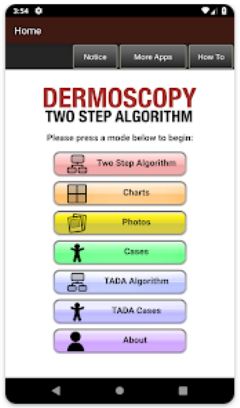

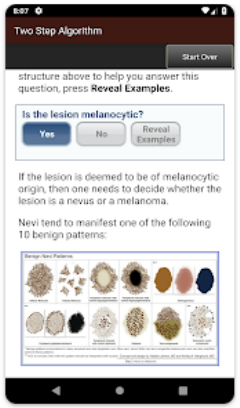

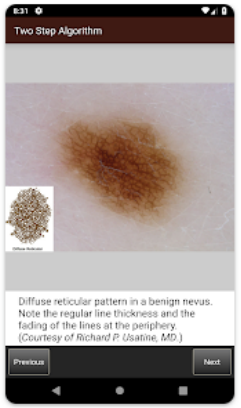

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Adobe
4.8 ★

Fasting - Intermittent Fasting
Leap Fitness Group
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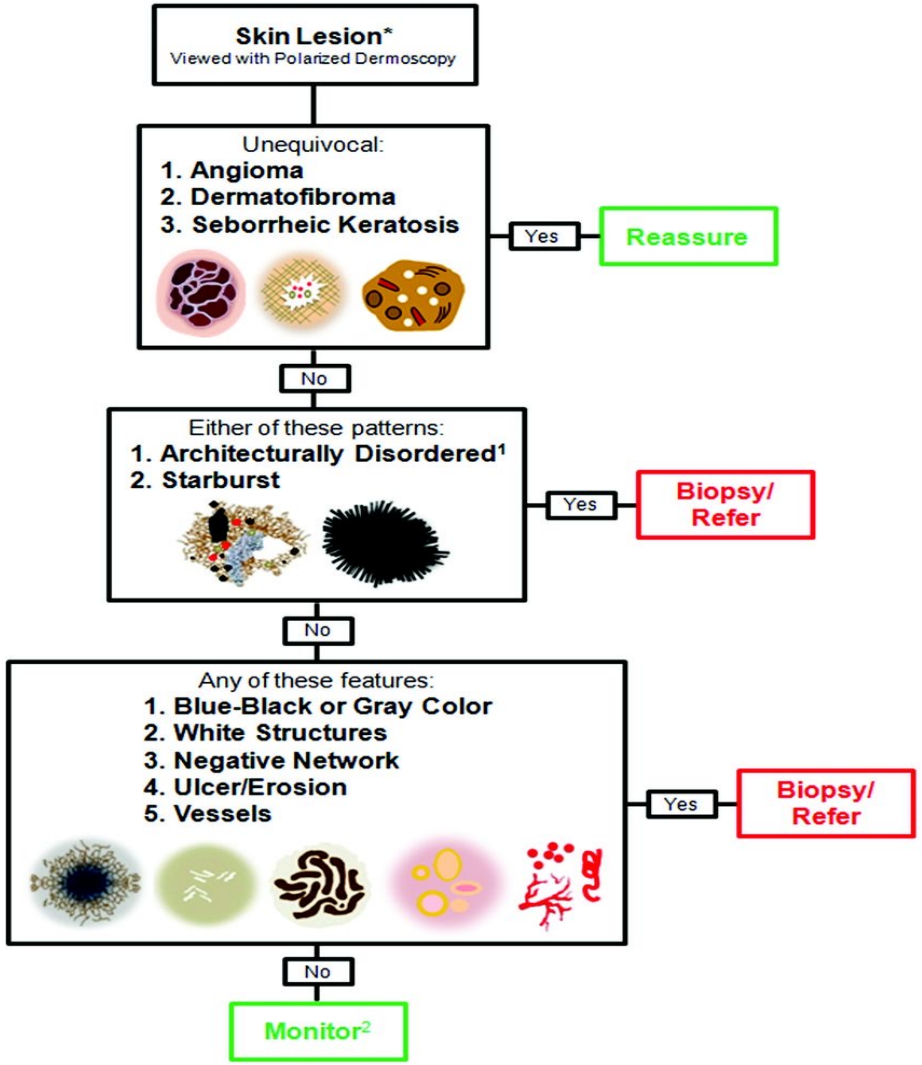
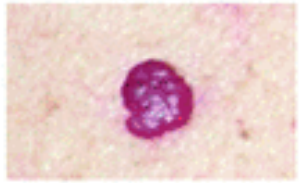
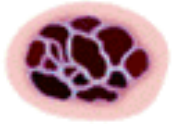
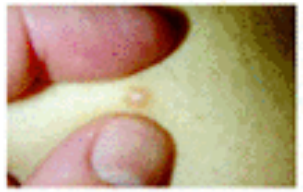
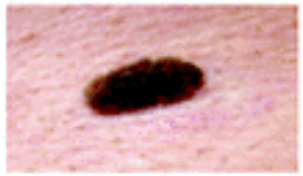
Triage Amalgamated Dermoscopic Algorithm

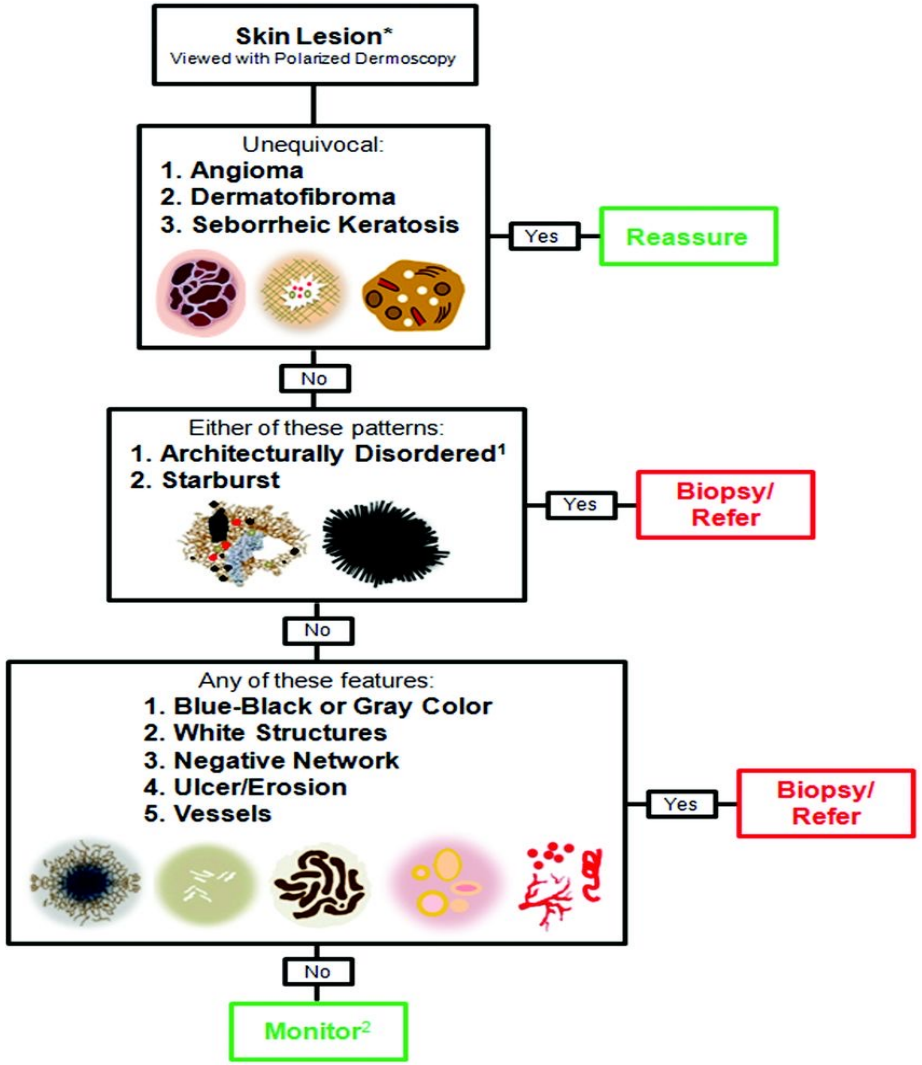


*Exception: Lesions on palms, soles, or nails
[1]Disorganized or asymmetric distribution of colors and/or structures
[2]Patient should continue self monitoring and any changes or new symptoms (i.e., itching, bleeding) brought to the attention of their physician

Step 1: Identify Common Benign Growths

Clinically	Dermoscopically
Red to Purple Dome-Shaped 	Classic Angioma 
Firm Dimpling 	Classic Dermatofibroma 
Keratotic Stuck-On 	Classic Seborrheic Keratosis 

Triage Amalgamated Dermoscopic Algorithm



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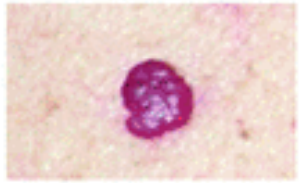
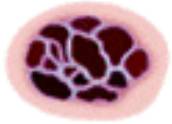
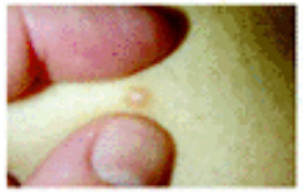
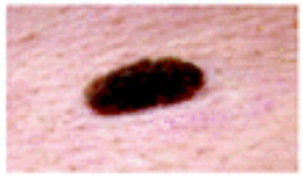
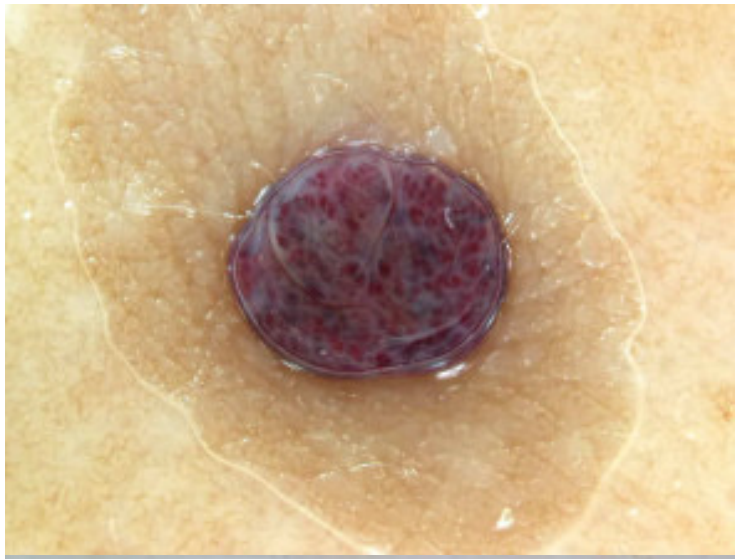
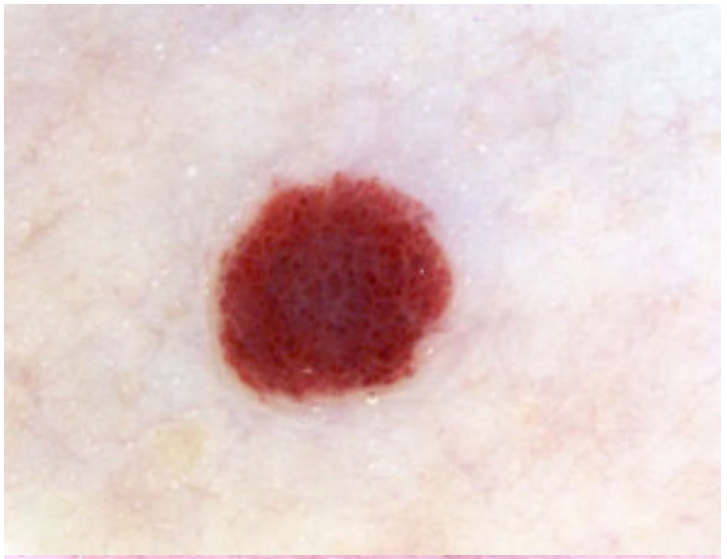
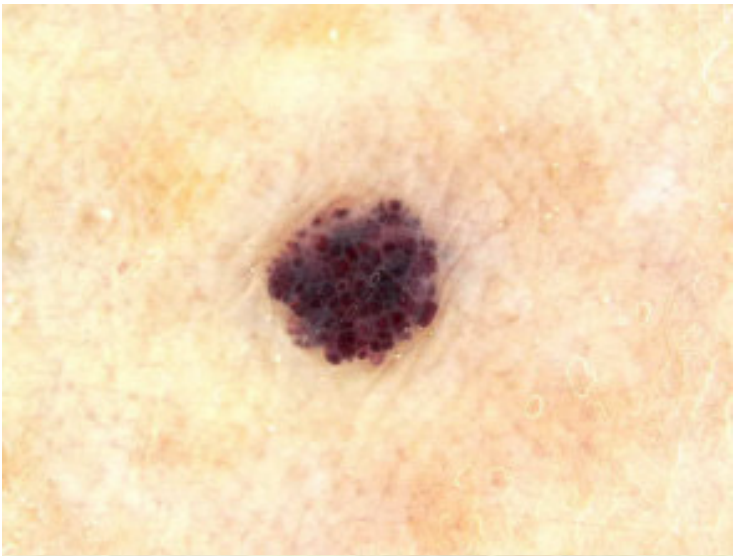
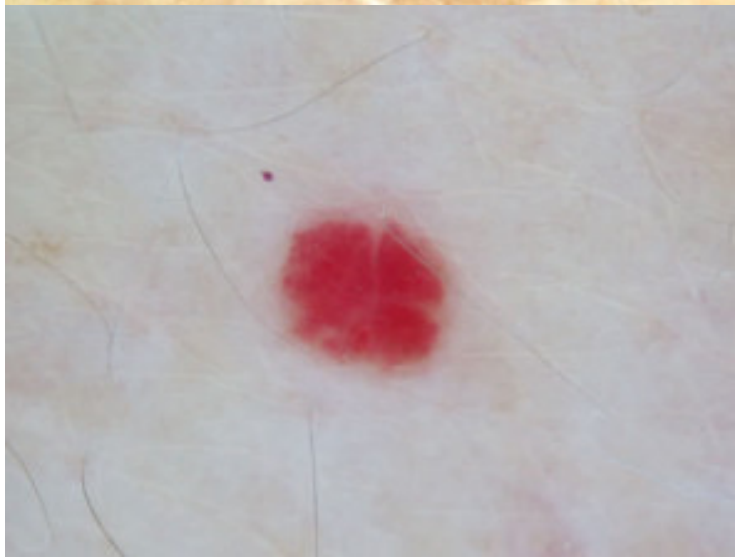
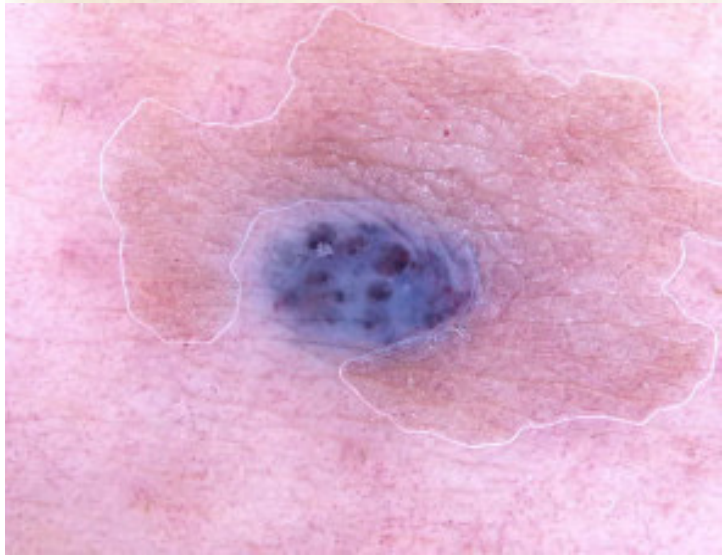
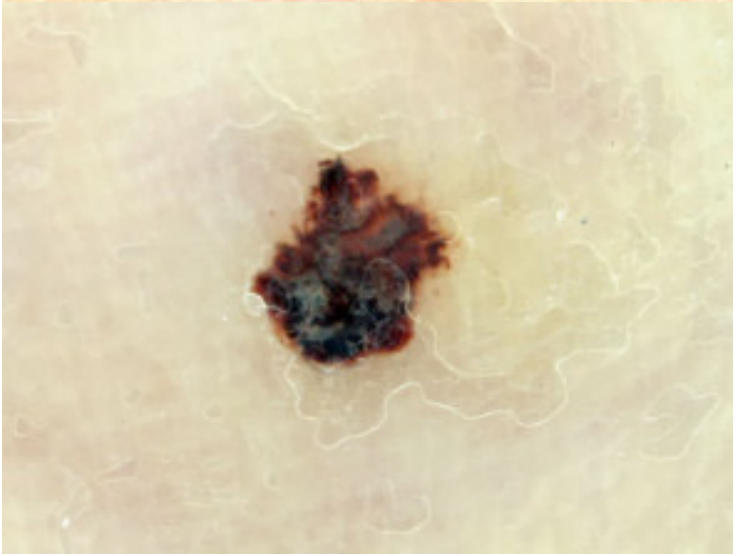
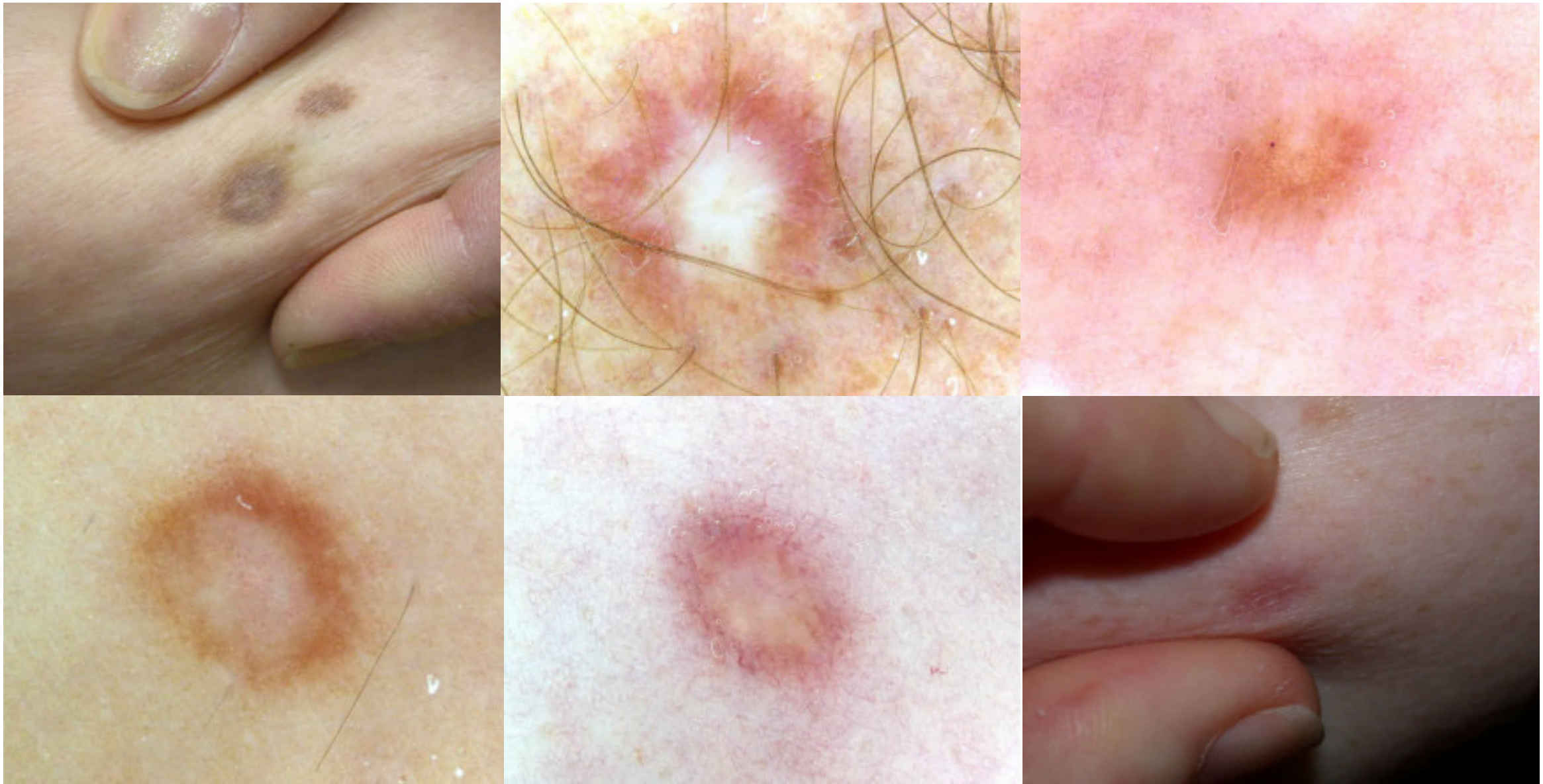
Red to Purple Dome-Shaped 	Classic Angioma 
Firm Dimpling 	Classic Dermatofibroma 
Keratotic Stuck-On 	Classic Seborrheic Keratosis 

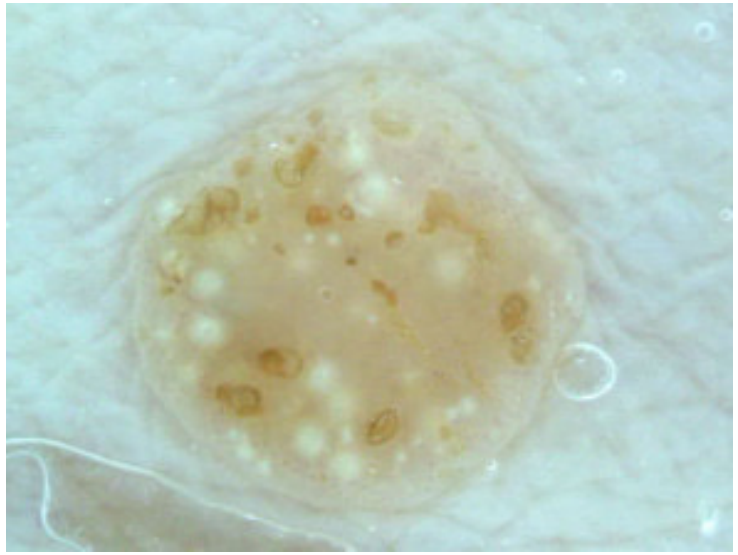
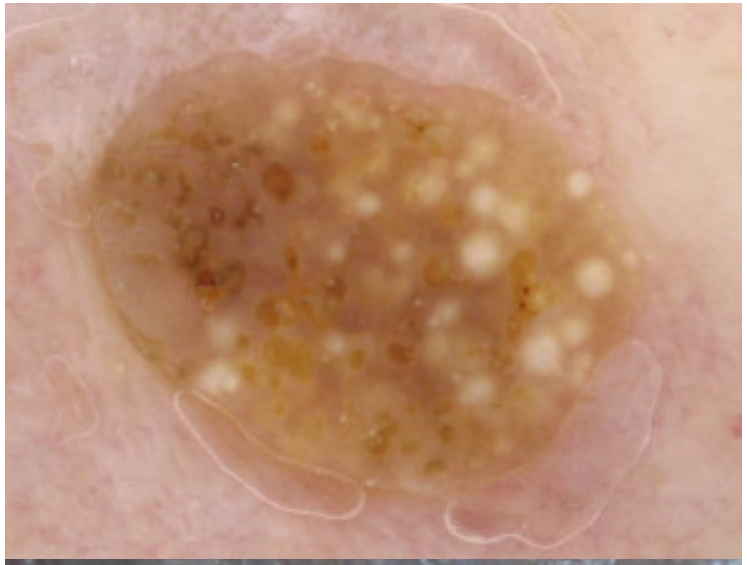
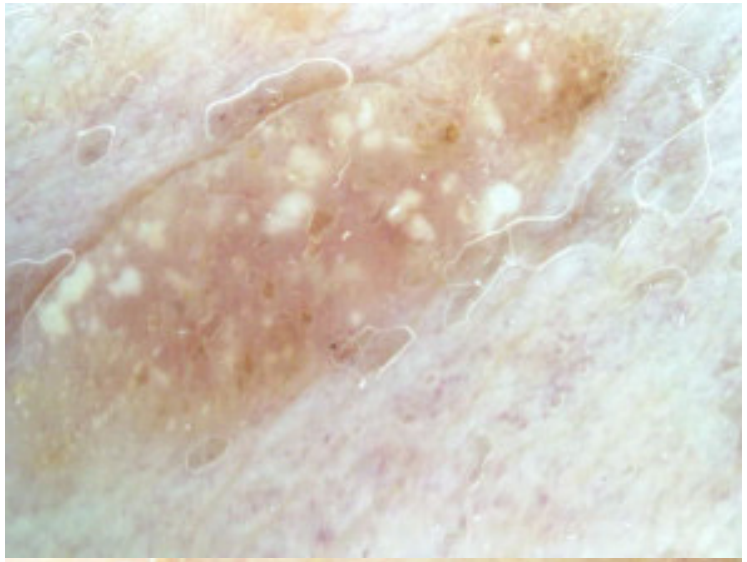
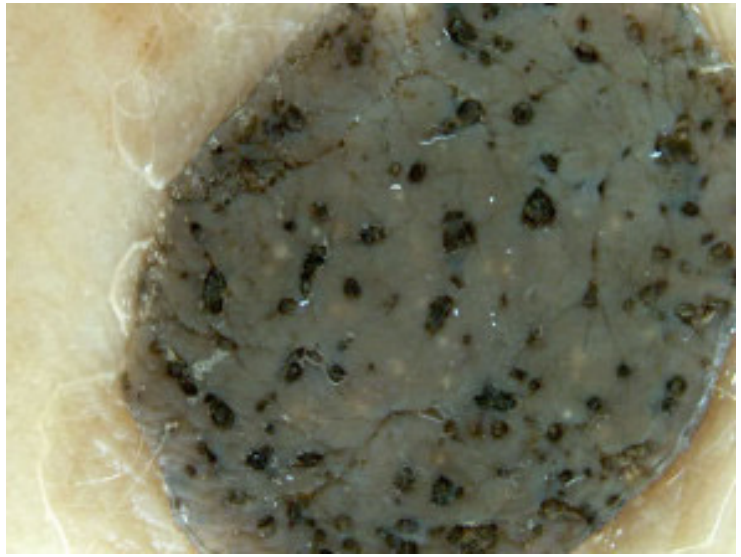
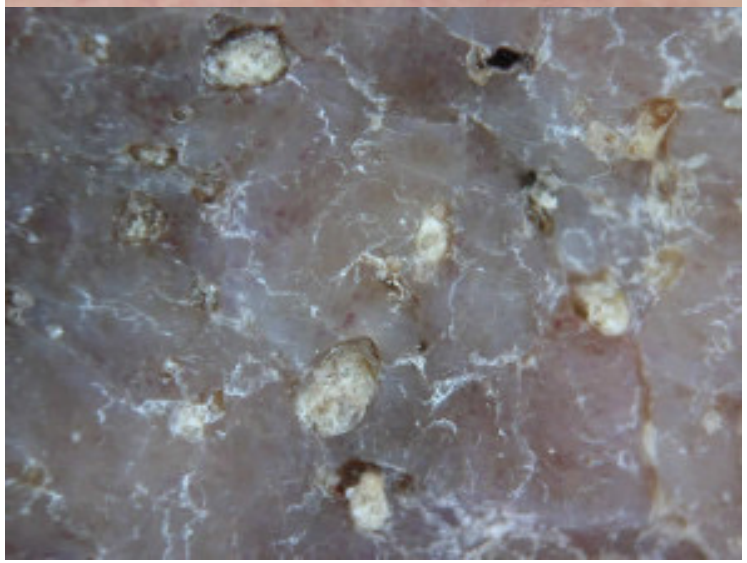
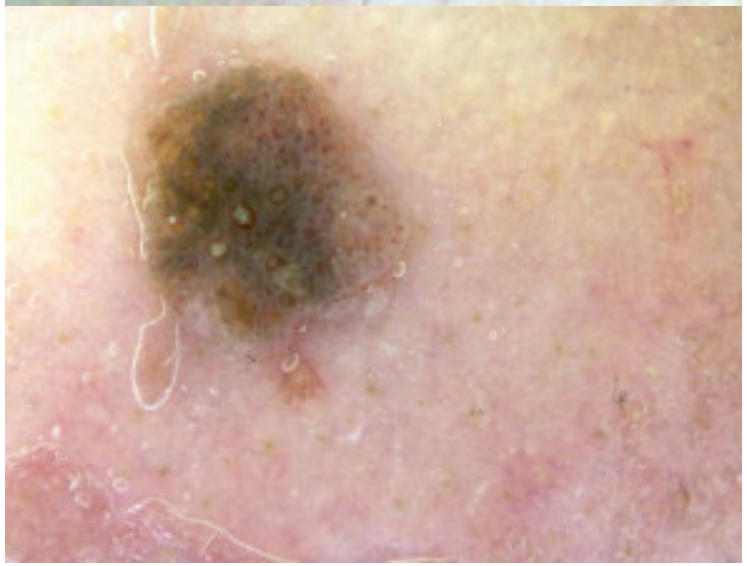
Angioma - Red/Blue/Purple Lacunae, separated by white Septae

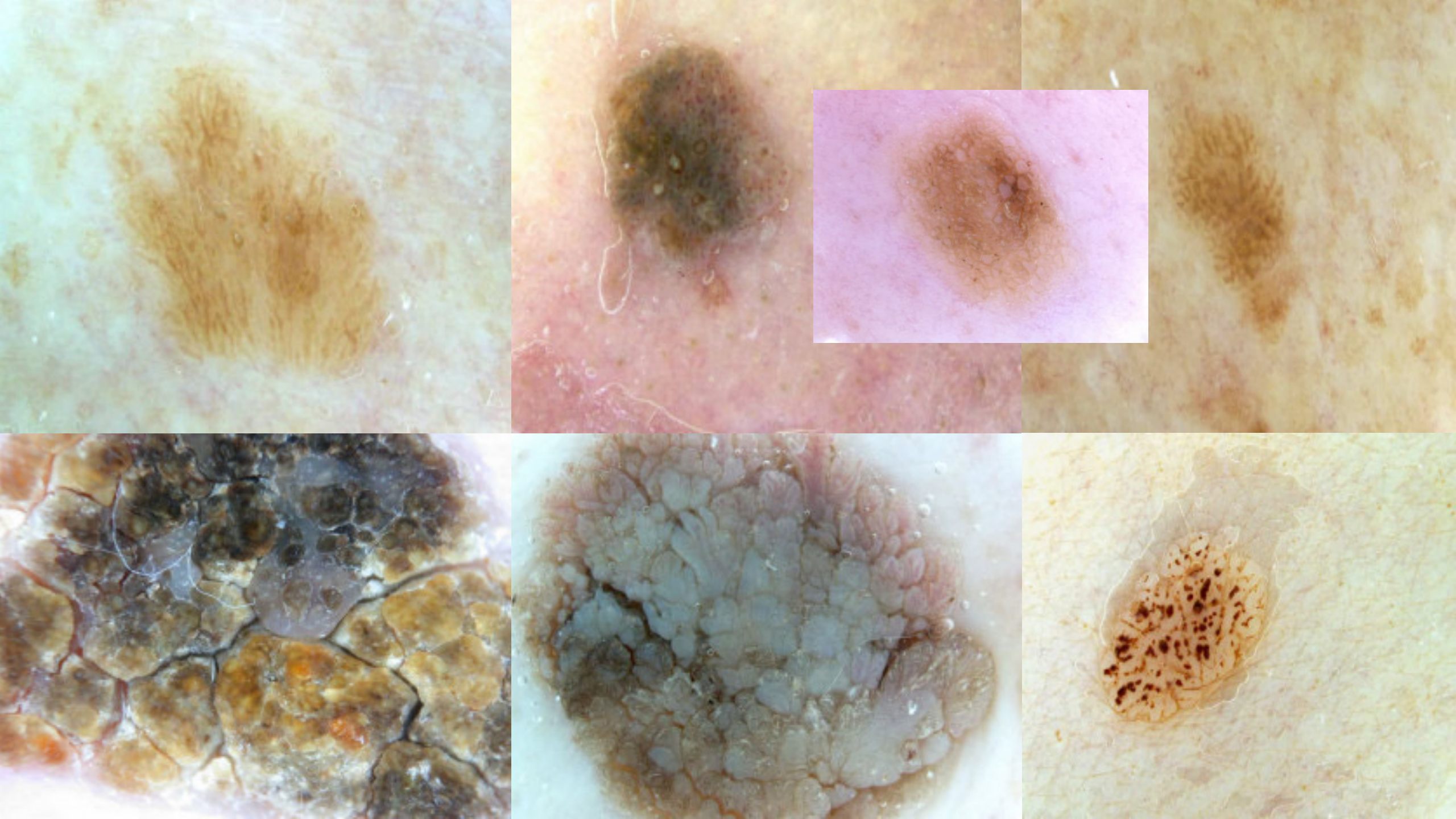







Dermatofibroma – Central Scar-like White area +/- vessels or pink blush, fine Reticular Network, and/or ring-like brown Globules

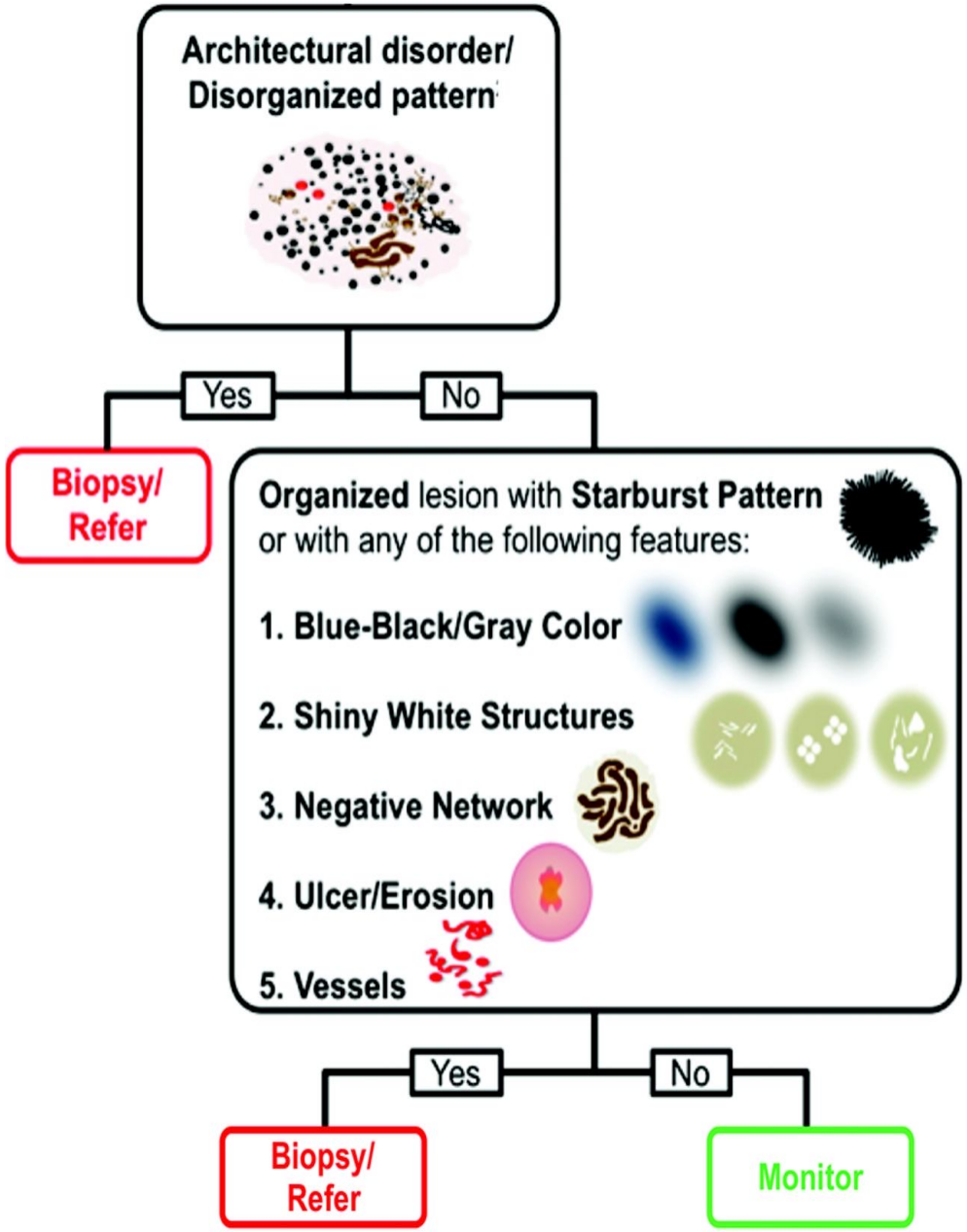


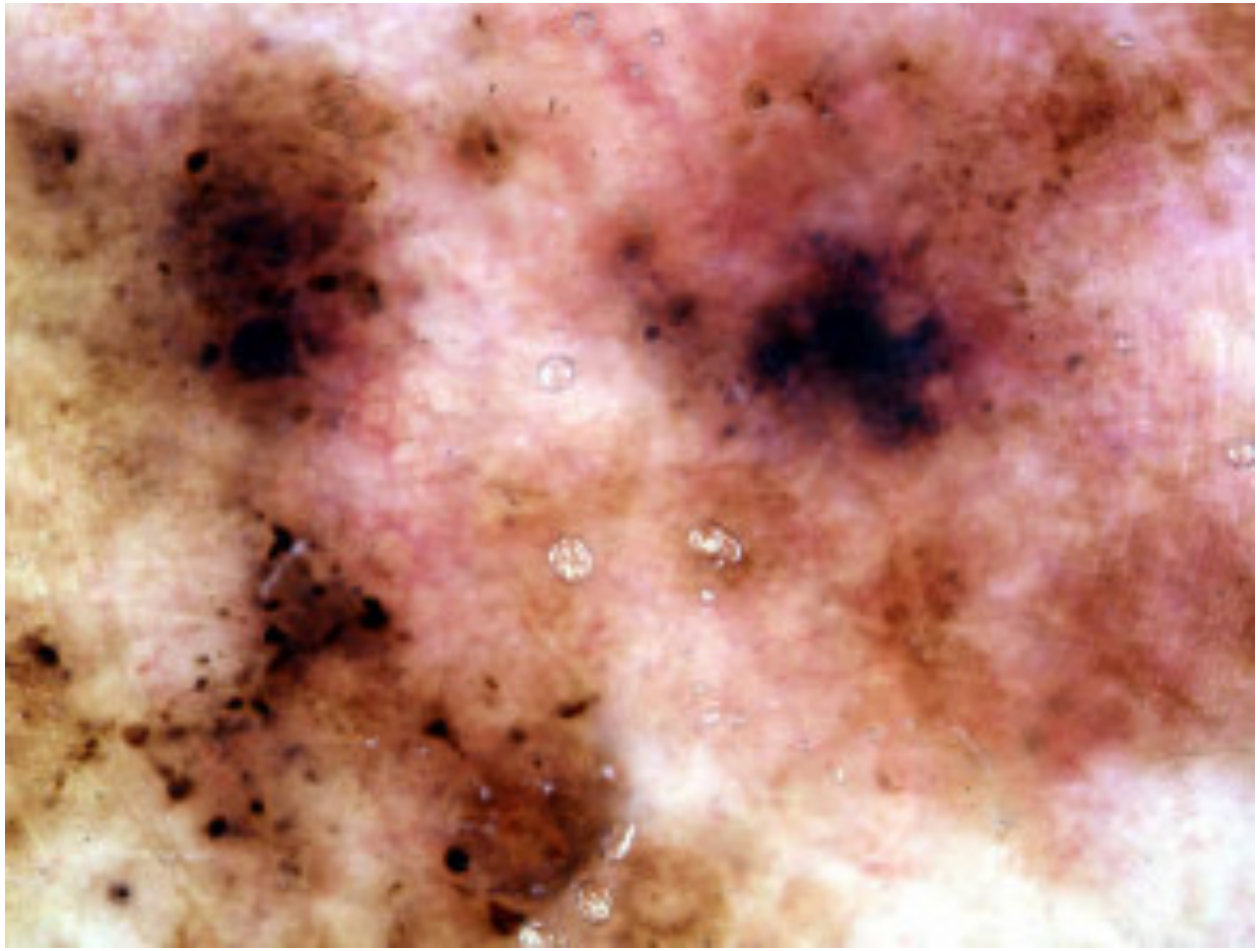
Seborrheic Keratosis – Milia-like cysts, Comedo-like openings, Gyri & sulci (Cerebriform, Fingerprint-like) hairpin vessels, moth-eaten border

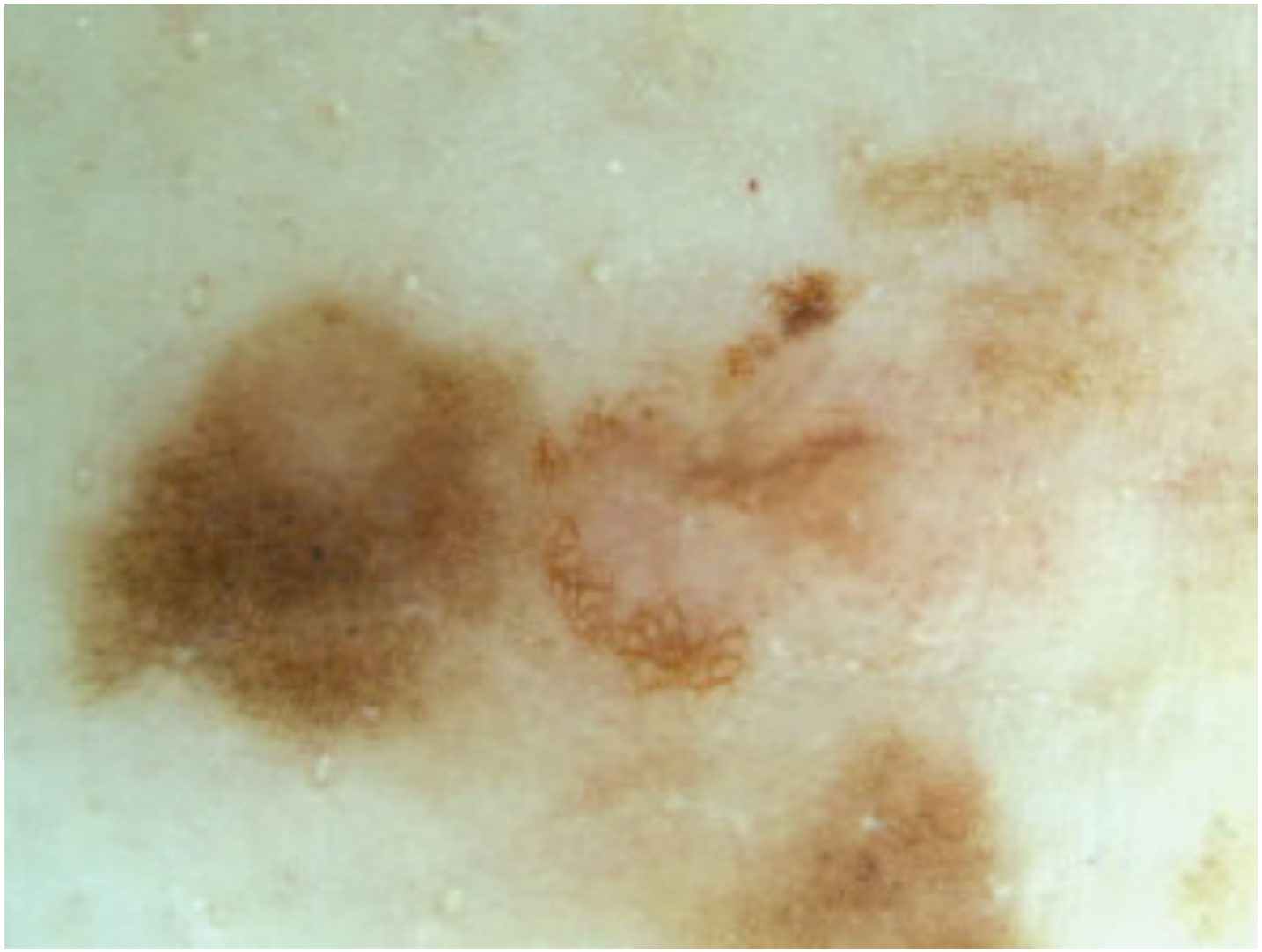







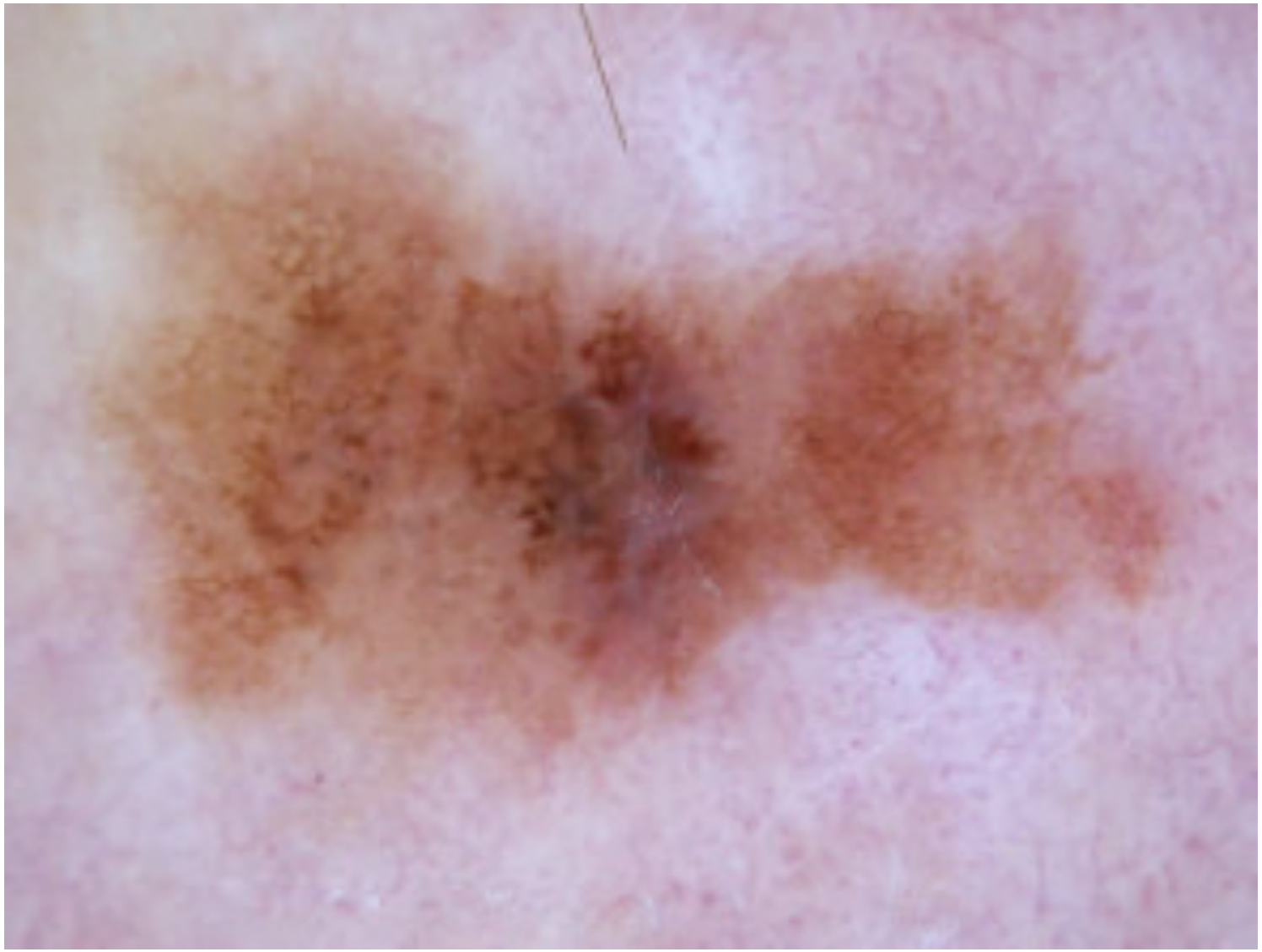


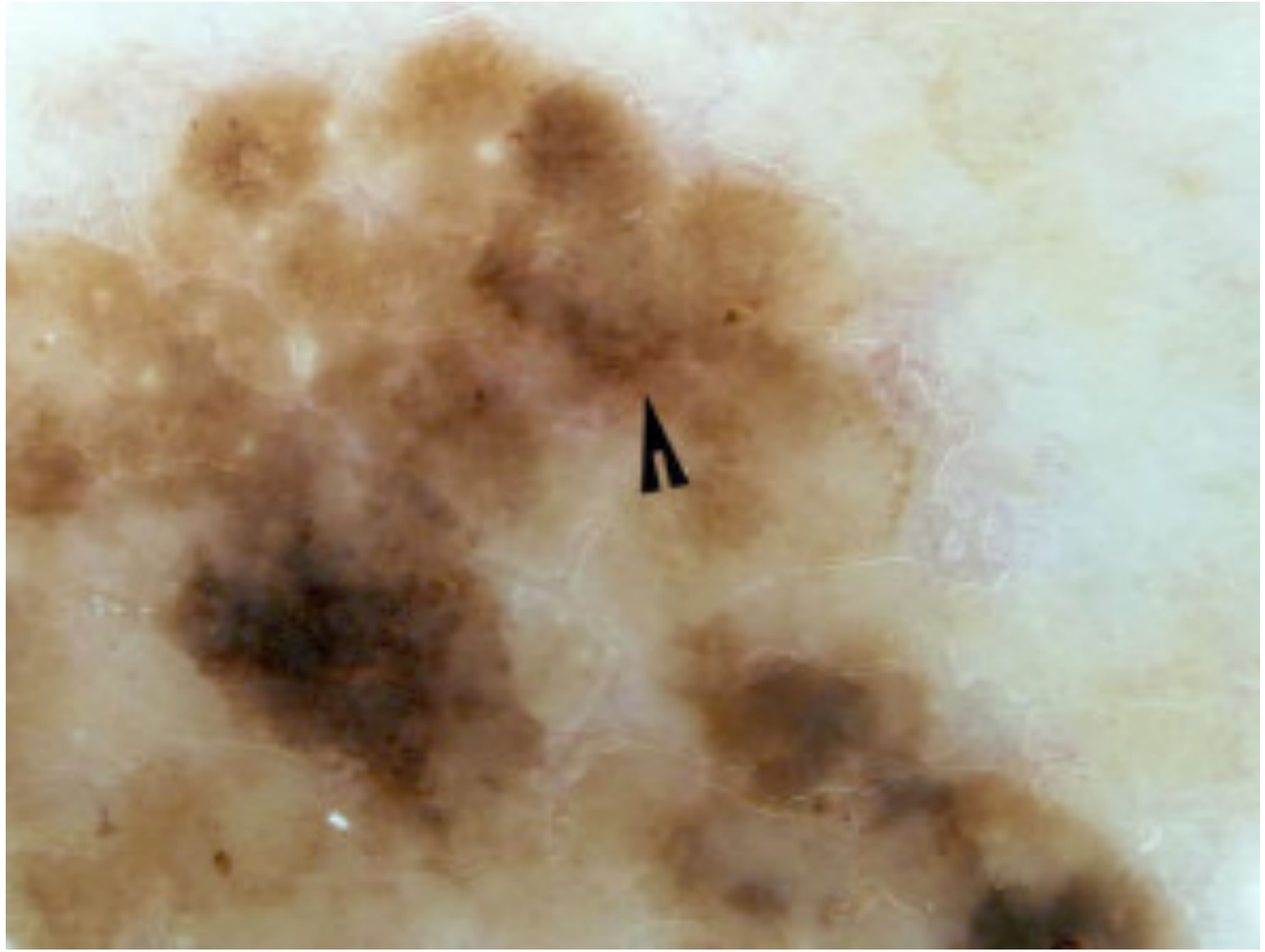
Step 2 – If it can't be classified as aforementioned

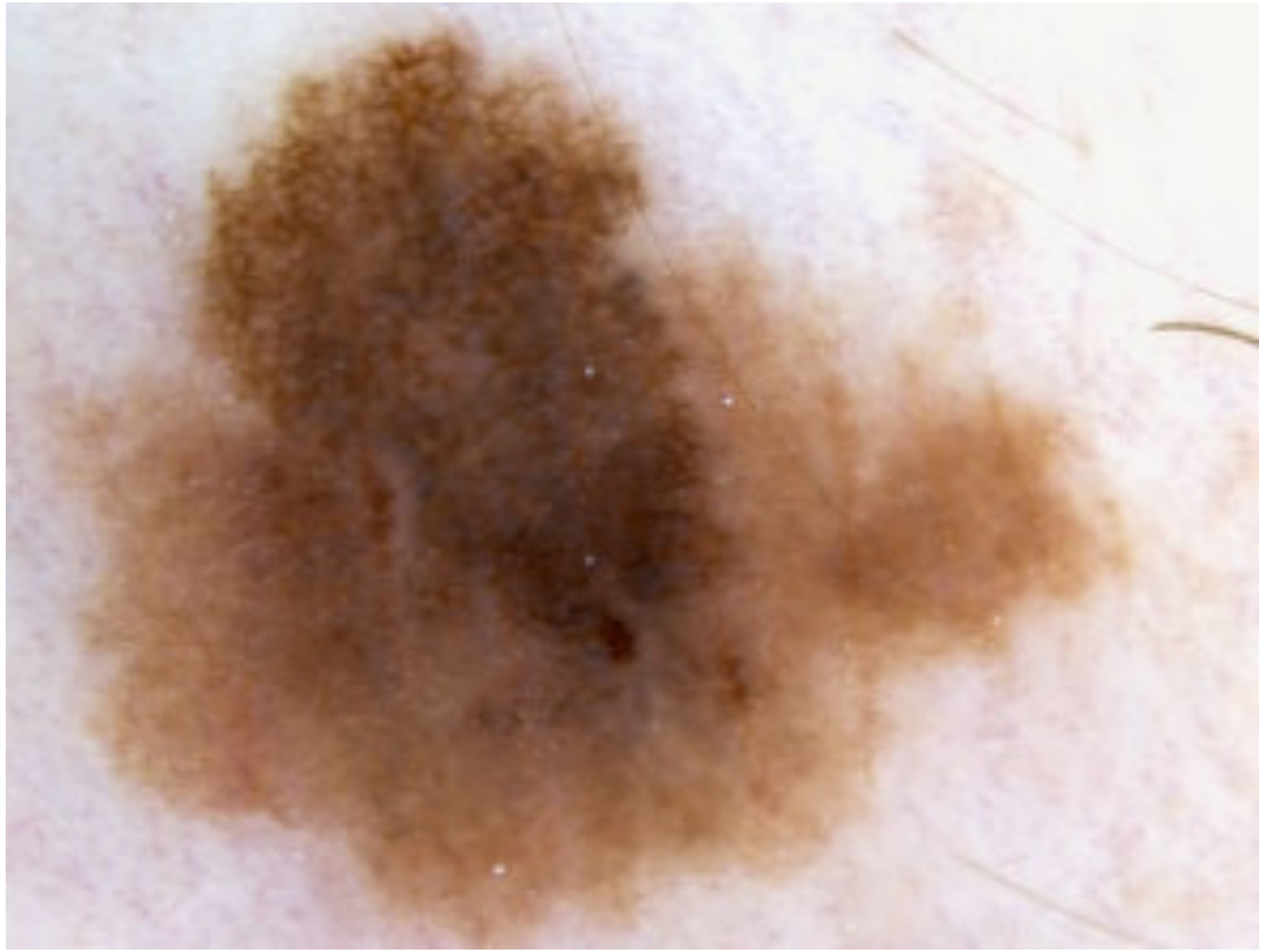




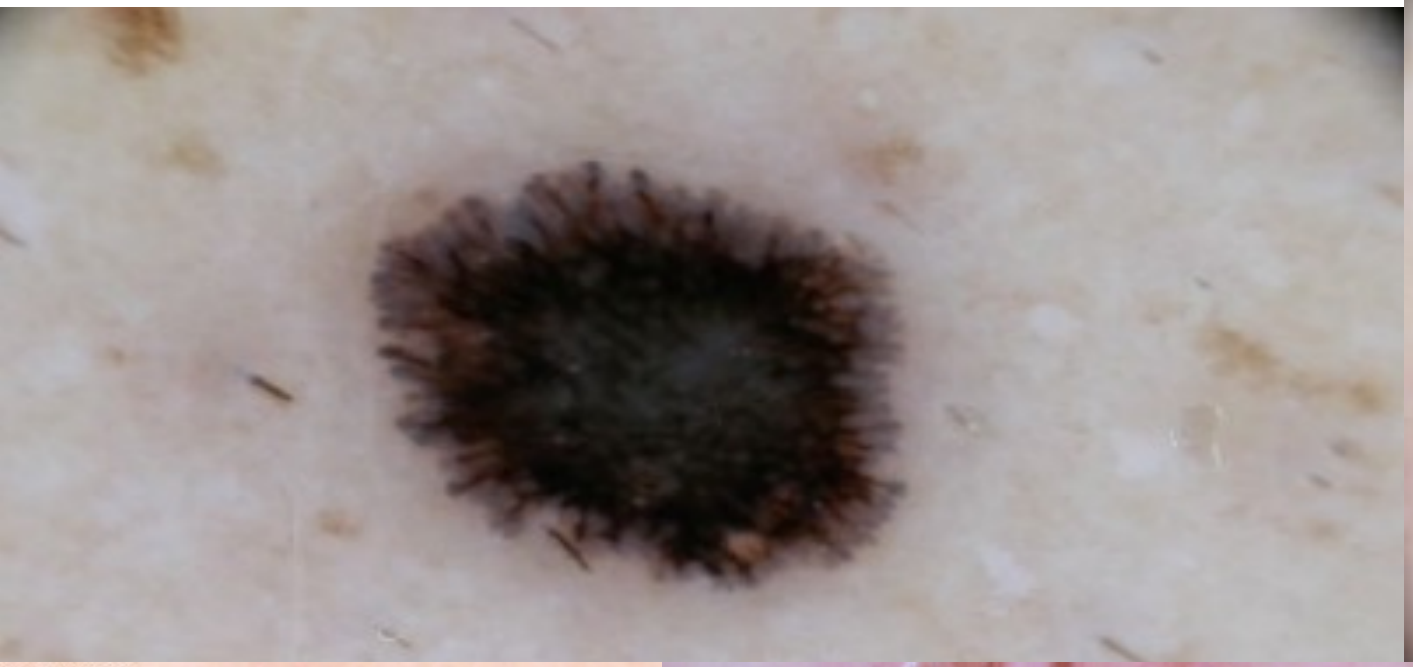


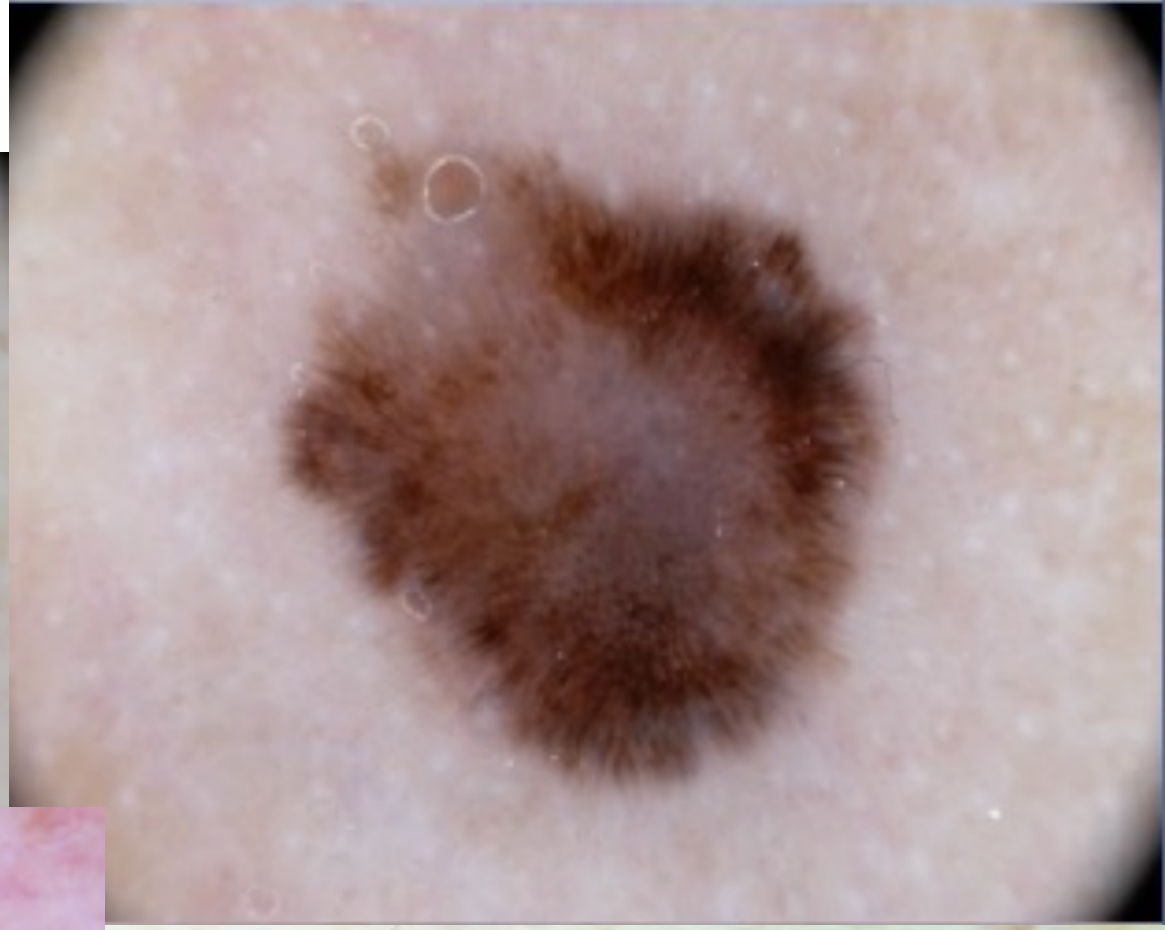


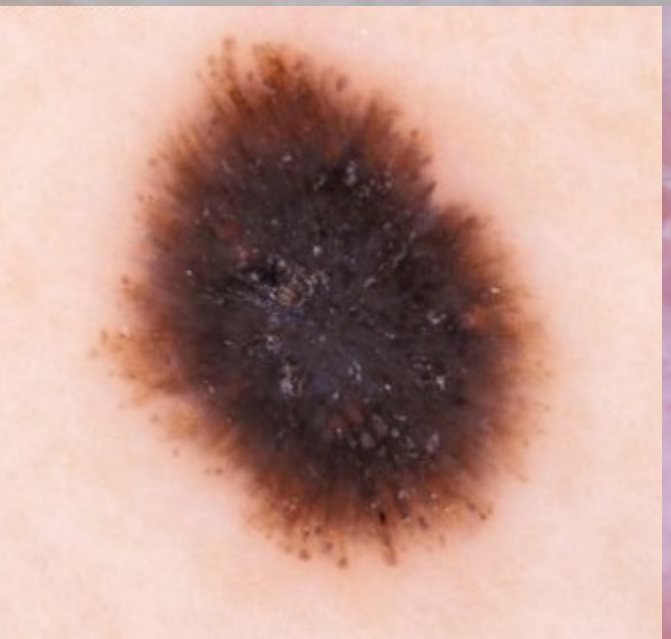


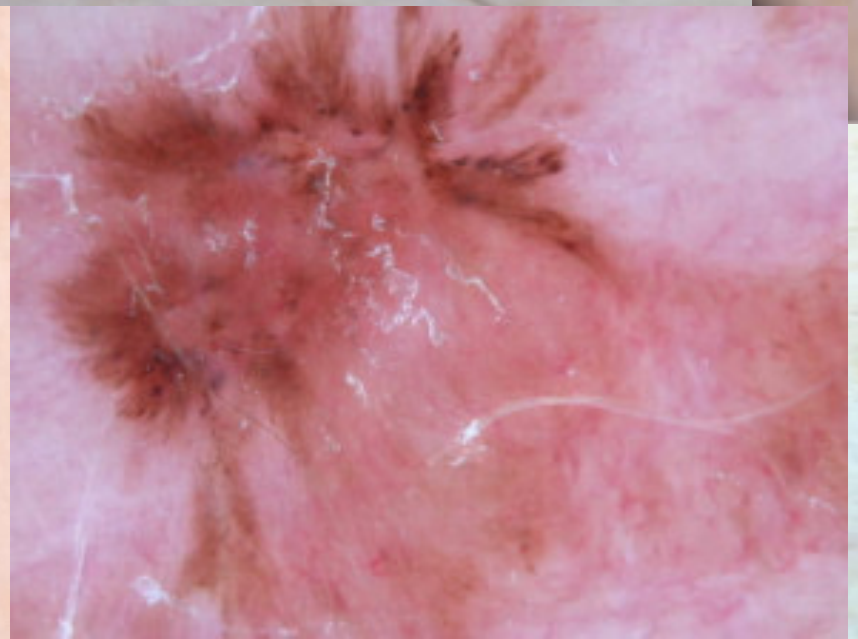


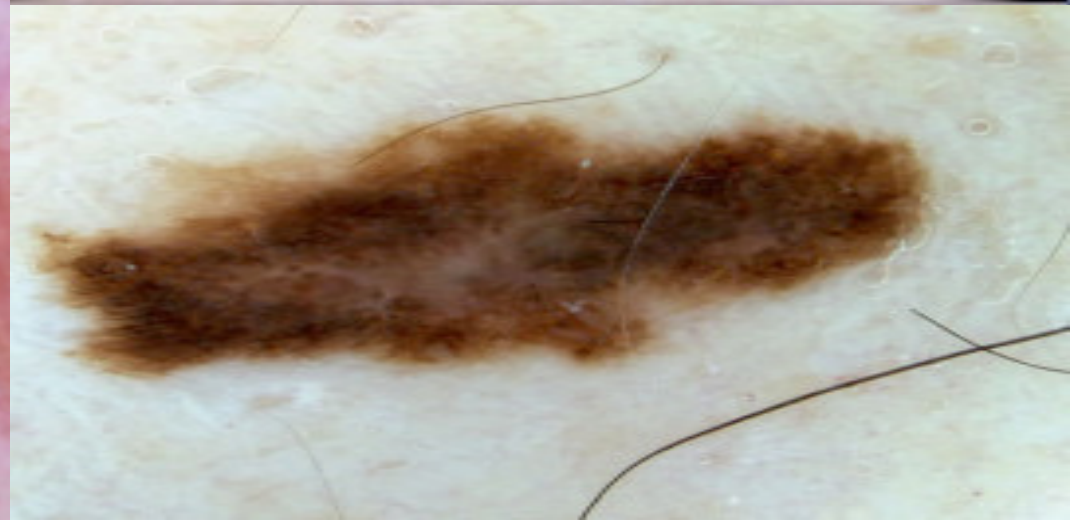
Starburst Pattern/Spitzoid



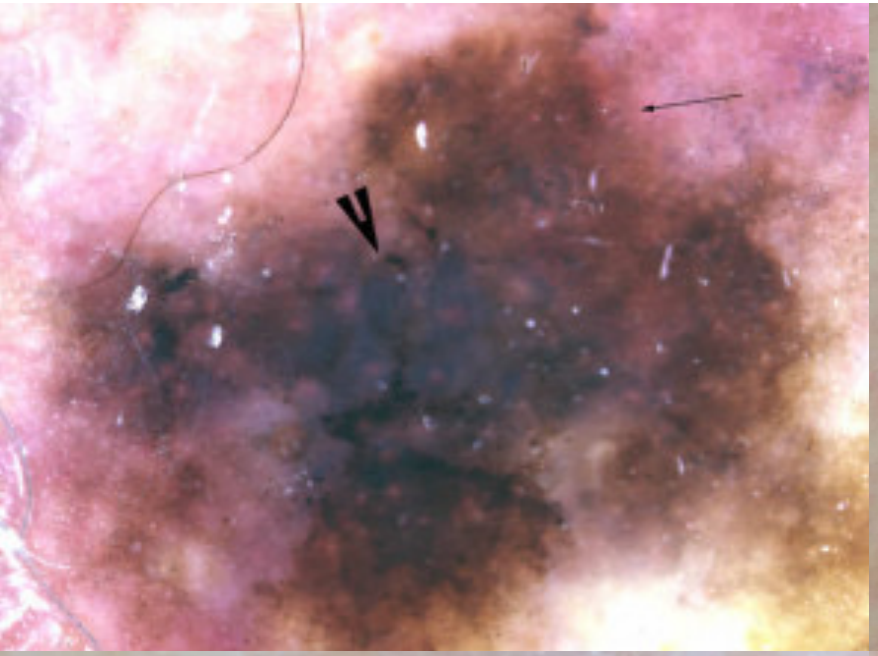
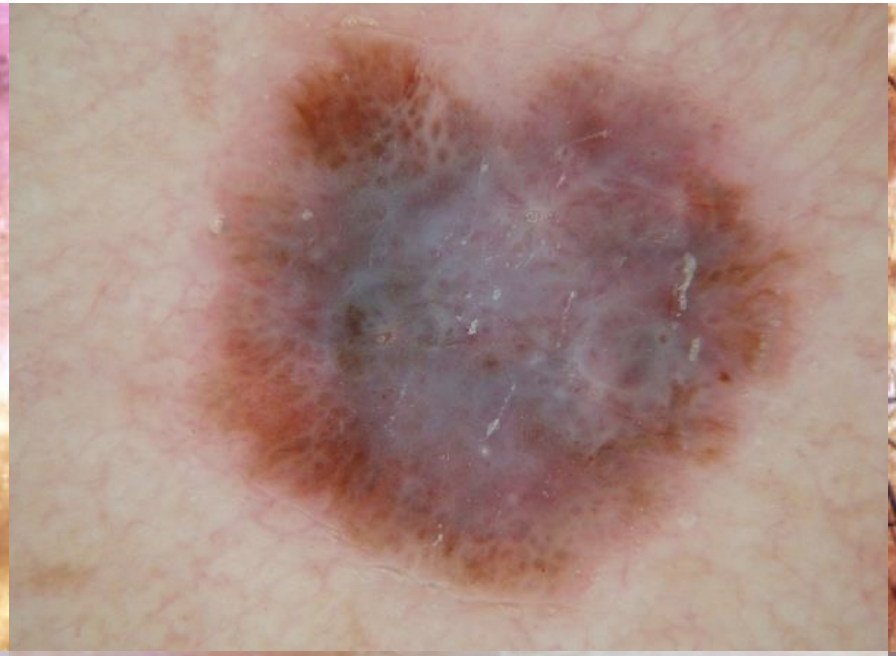
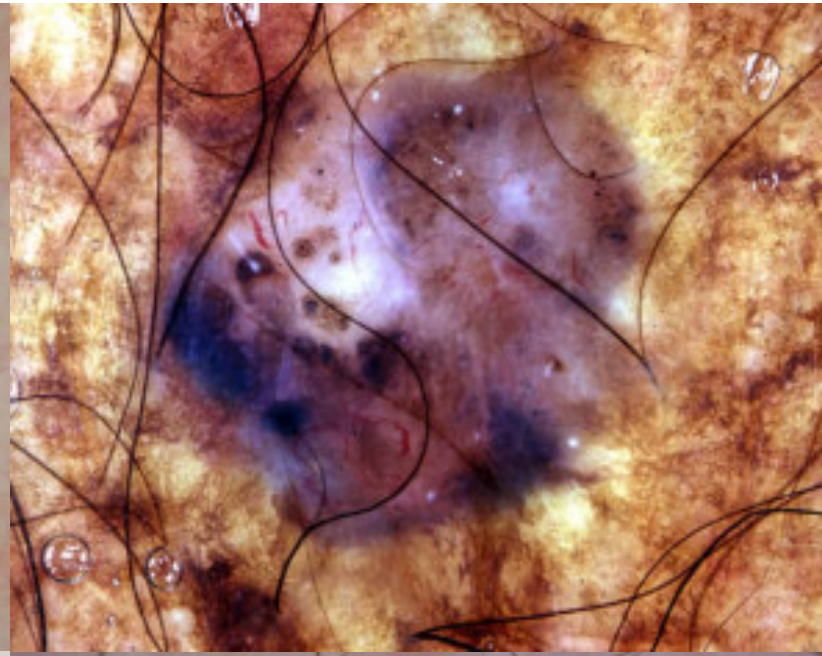
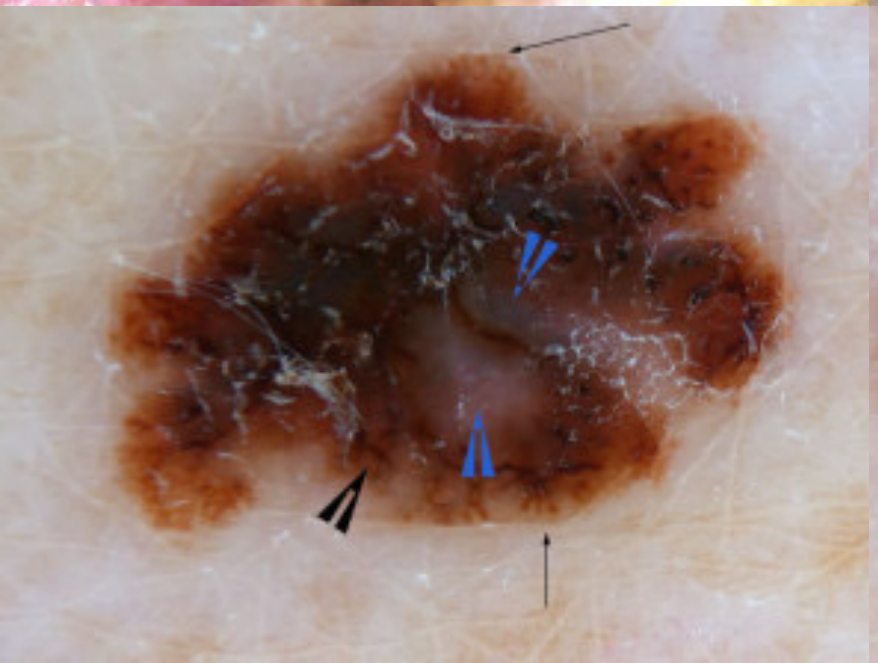


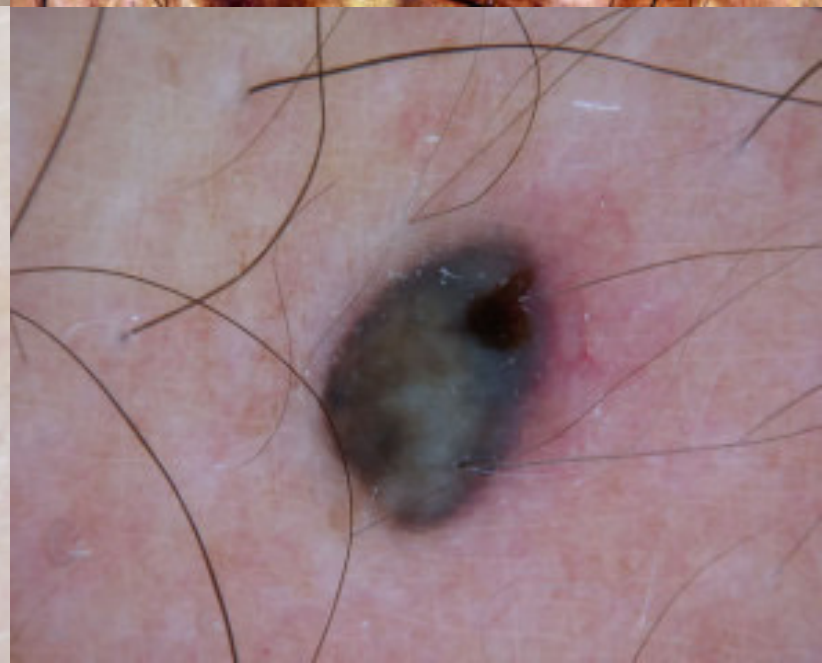




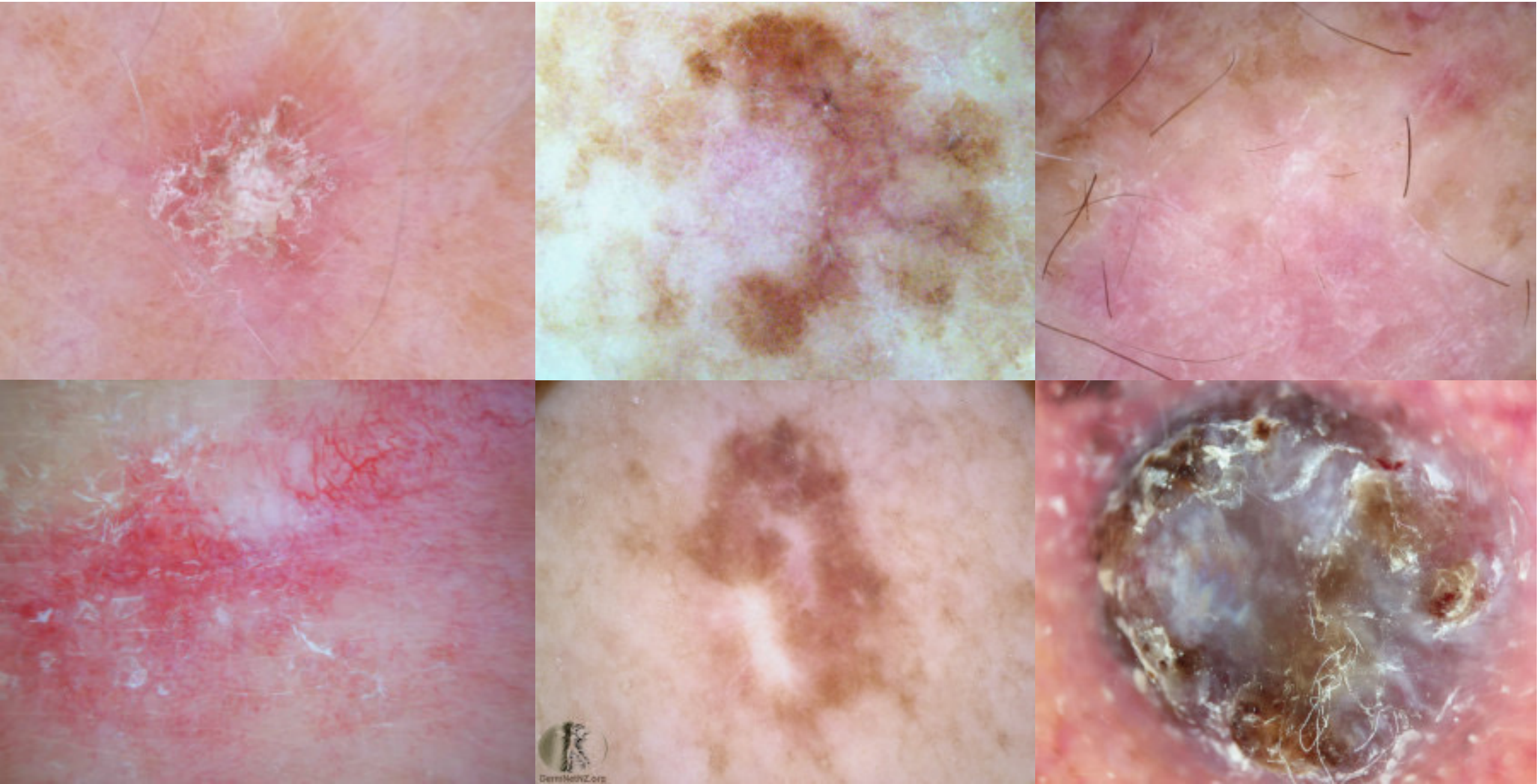


Blue/Black/Grey

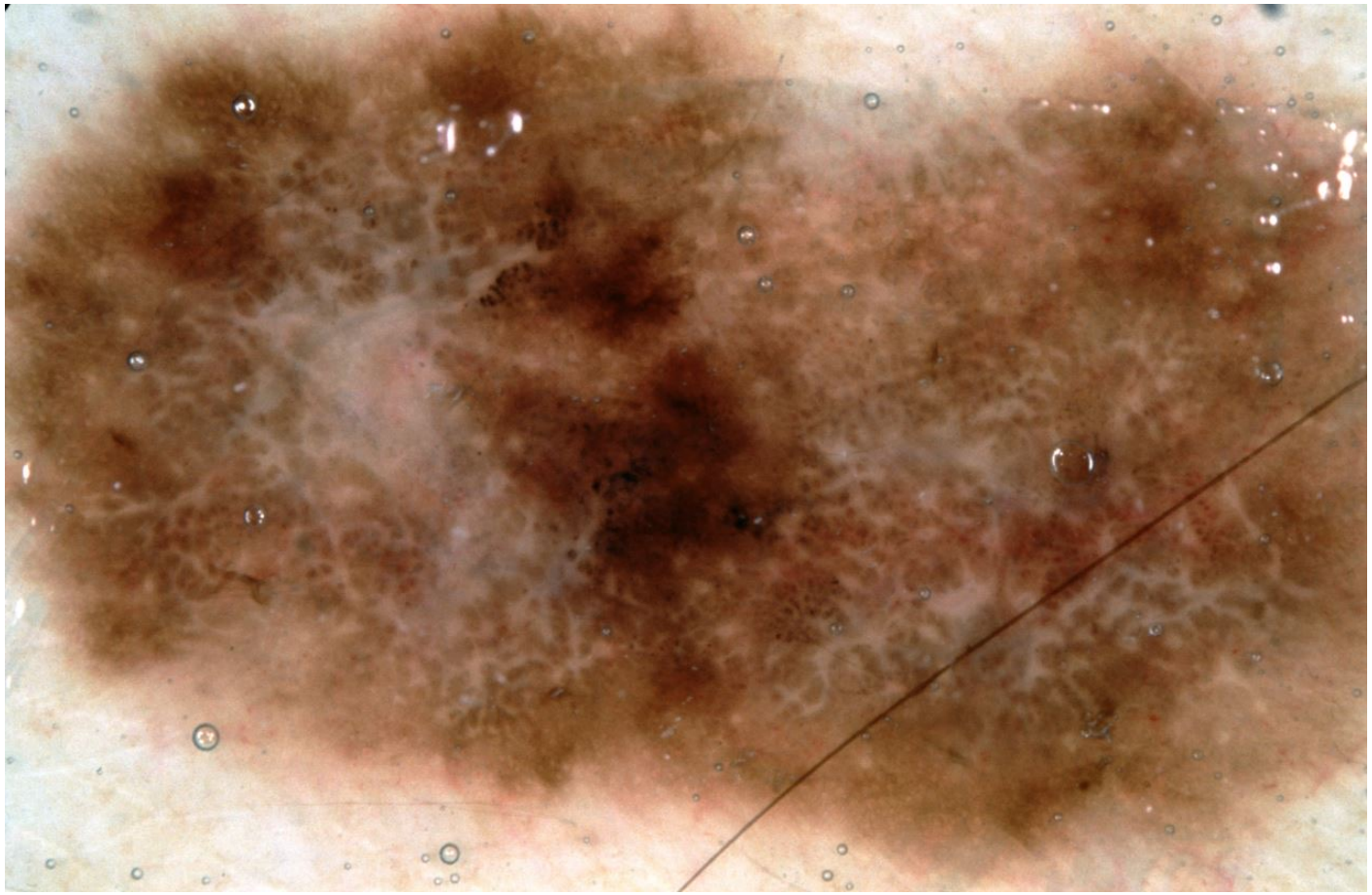







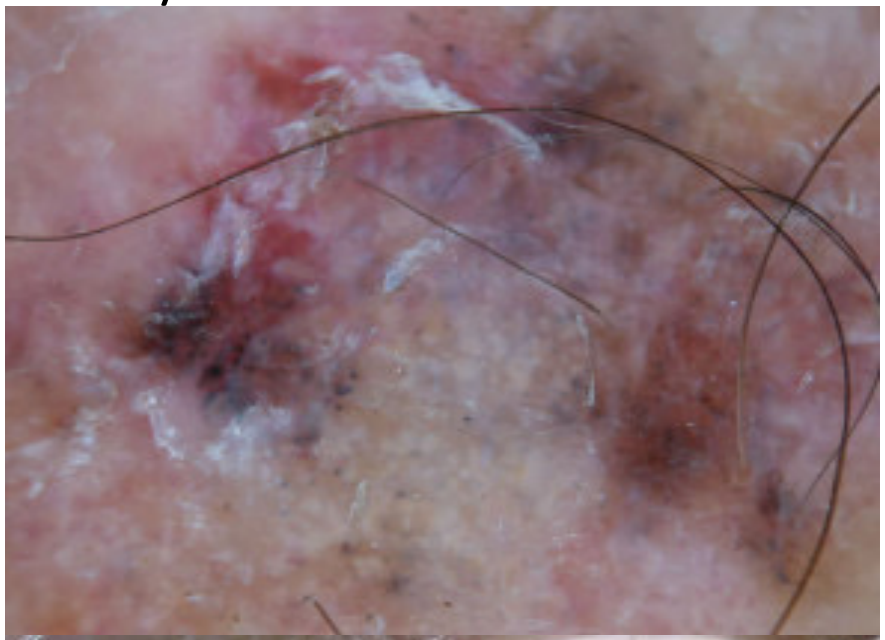
Shiny White Structures / Regression Structures (“Chrysallis”)

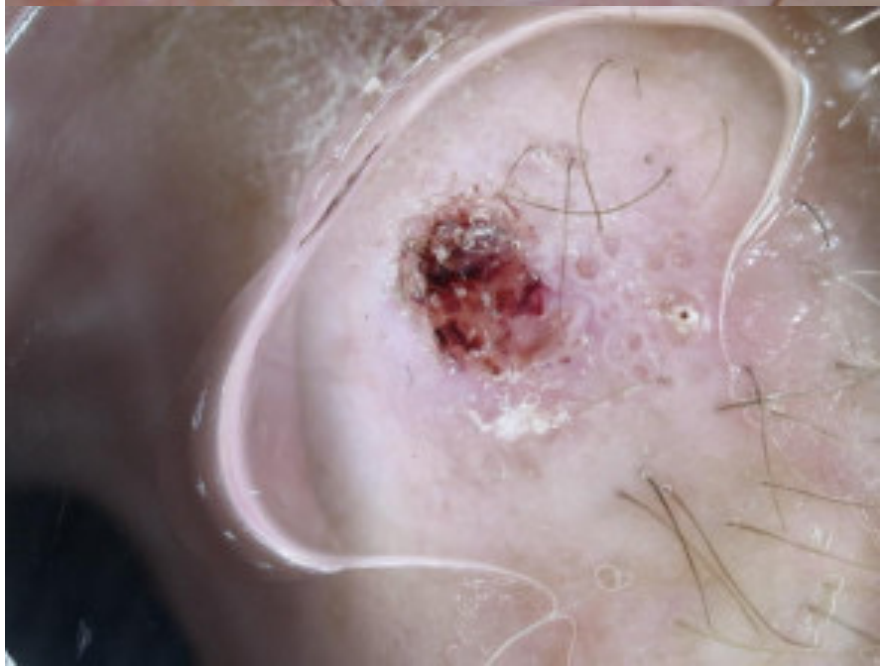


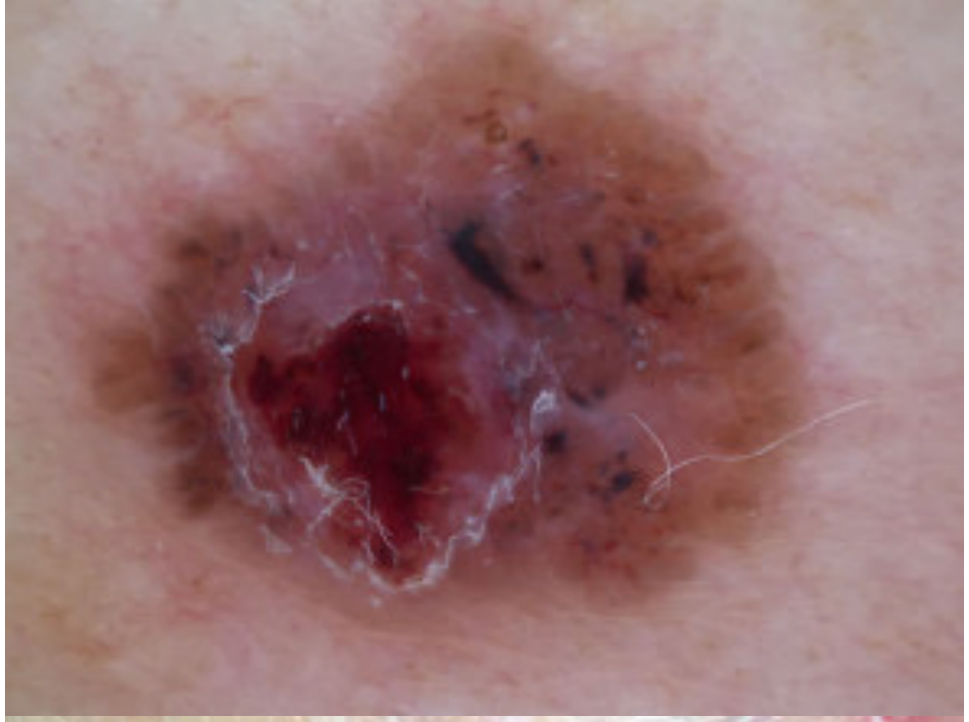
Negative Network

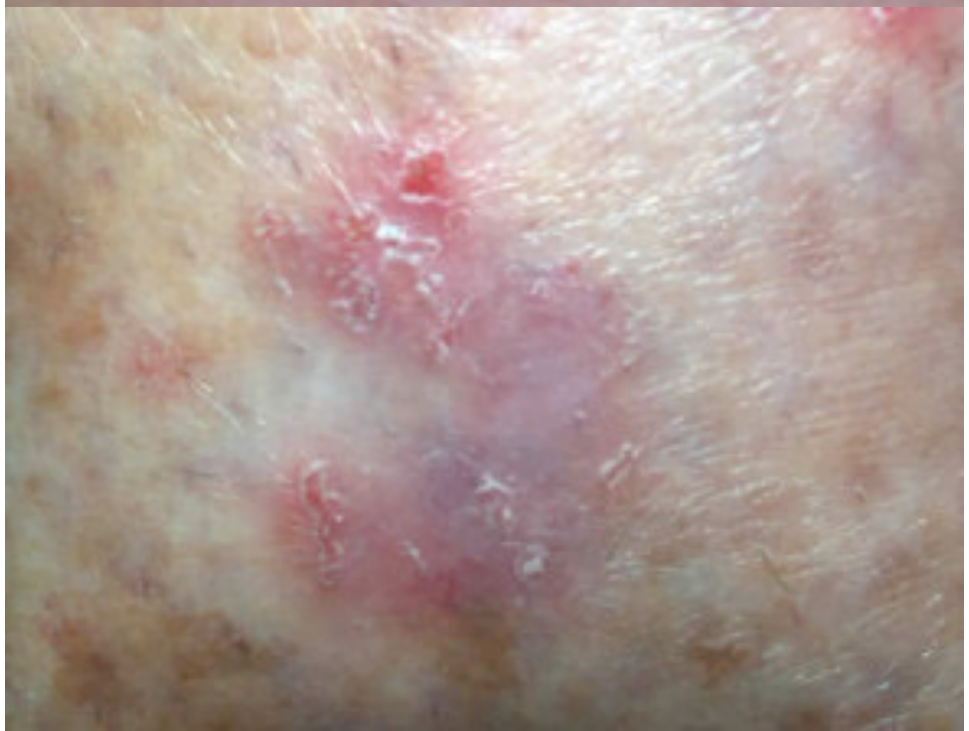


Ulcer/Erosion

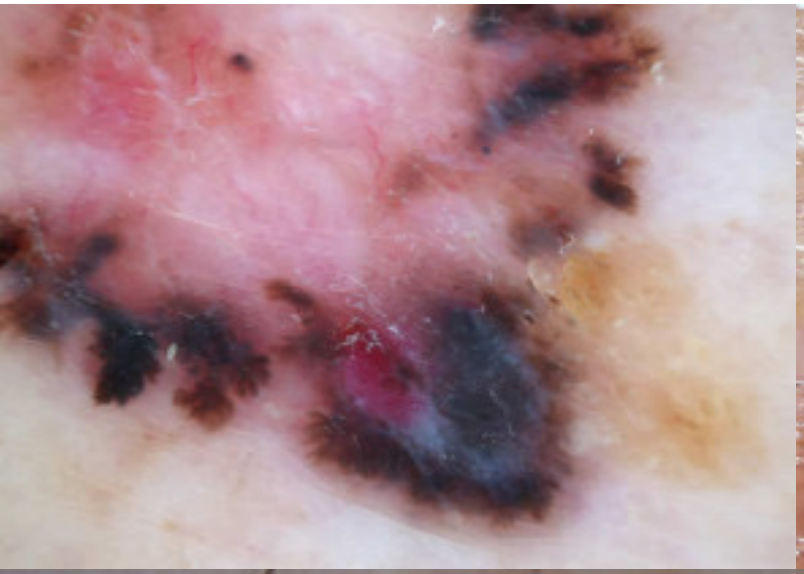
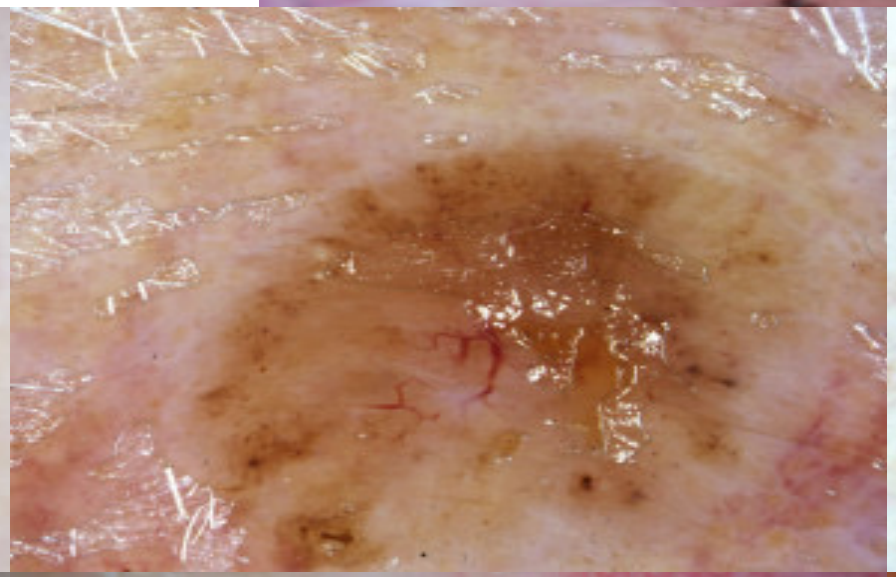
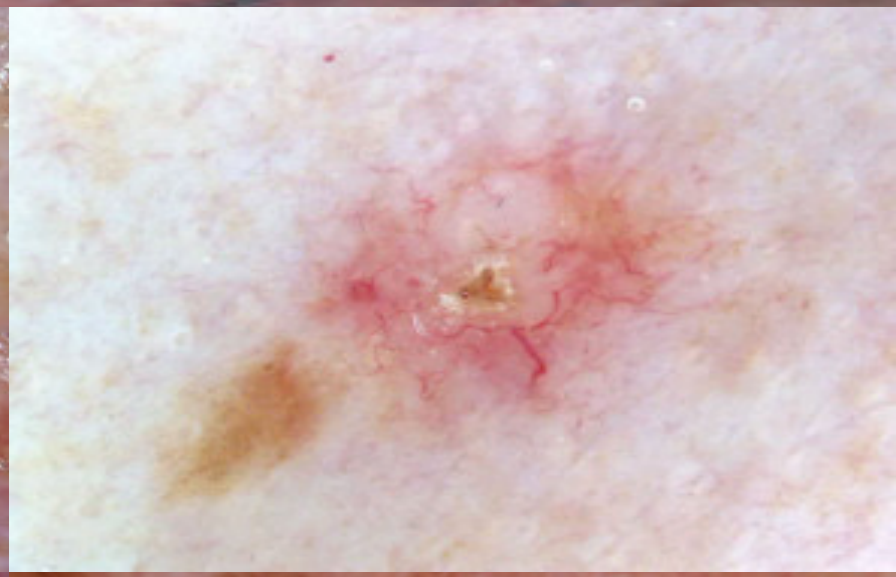
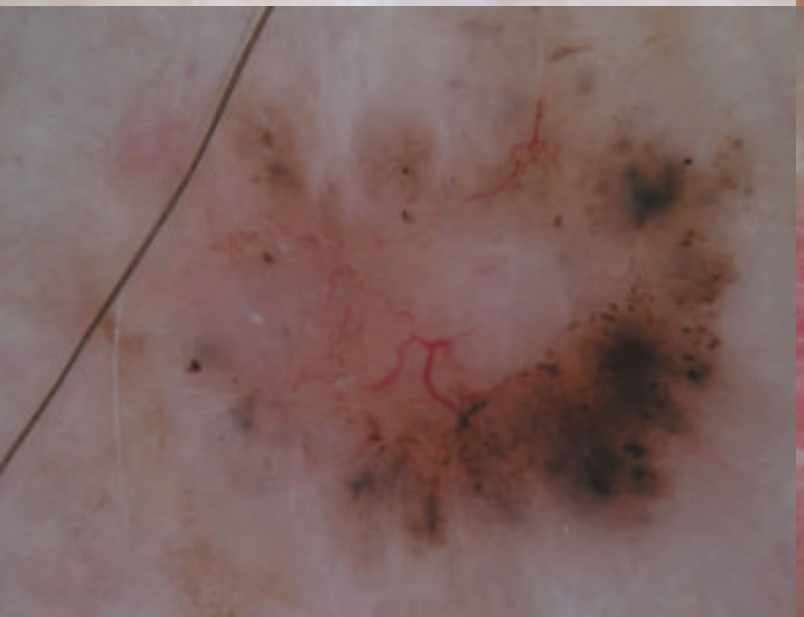
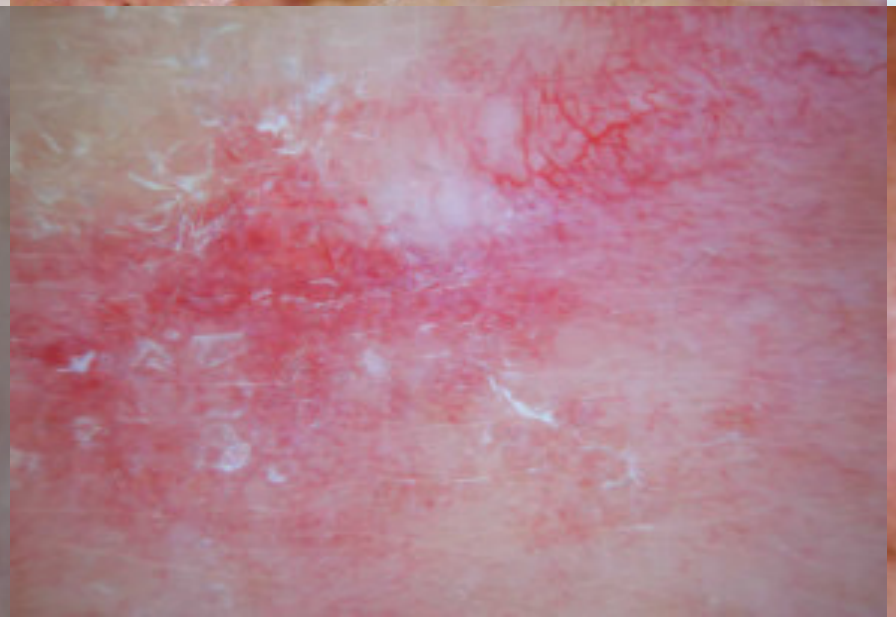
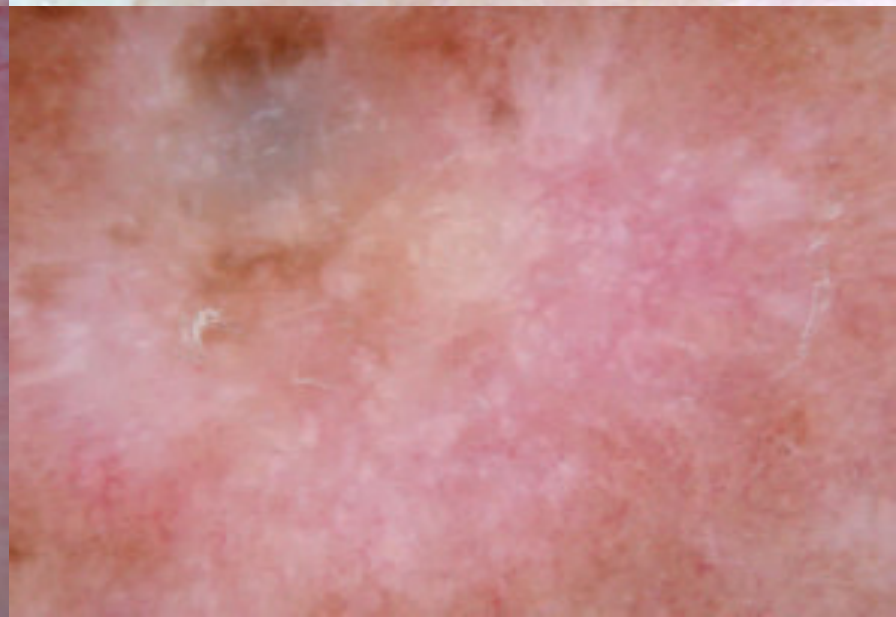


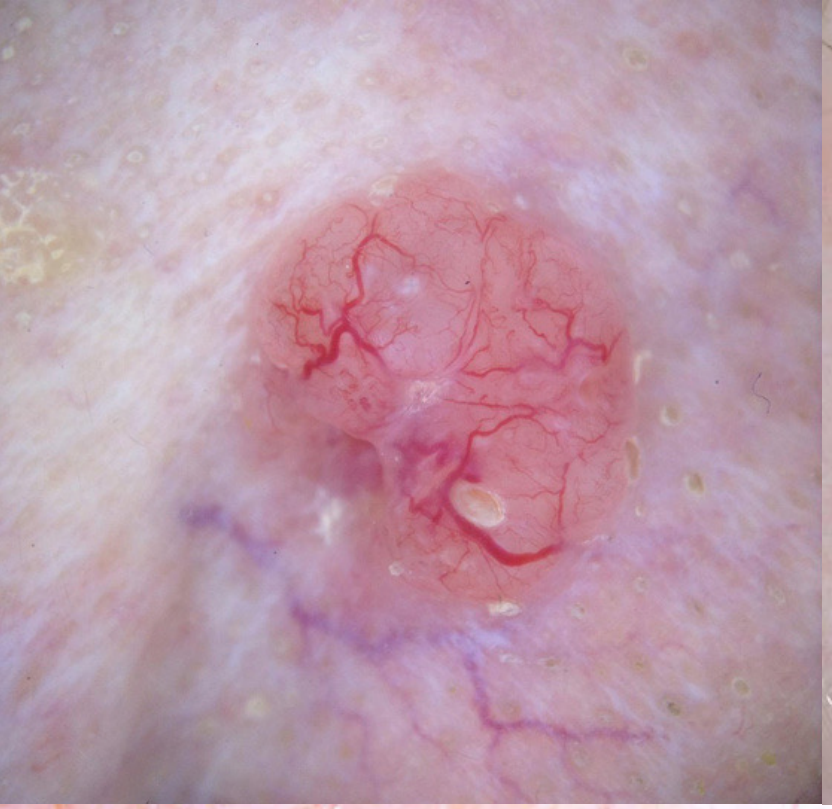
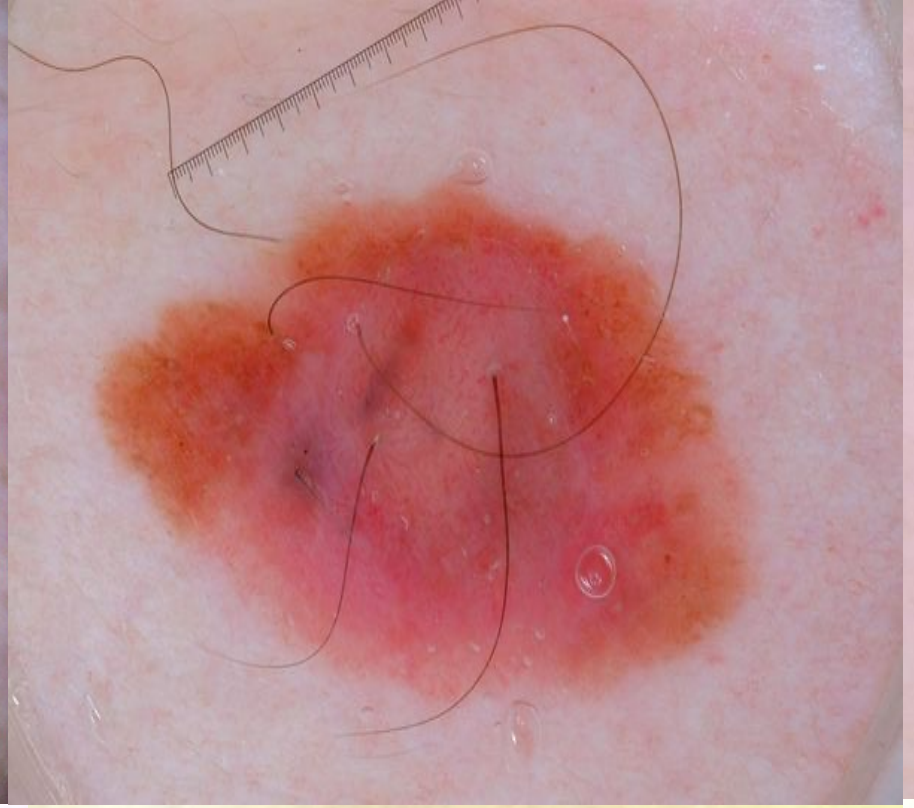
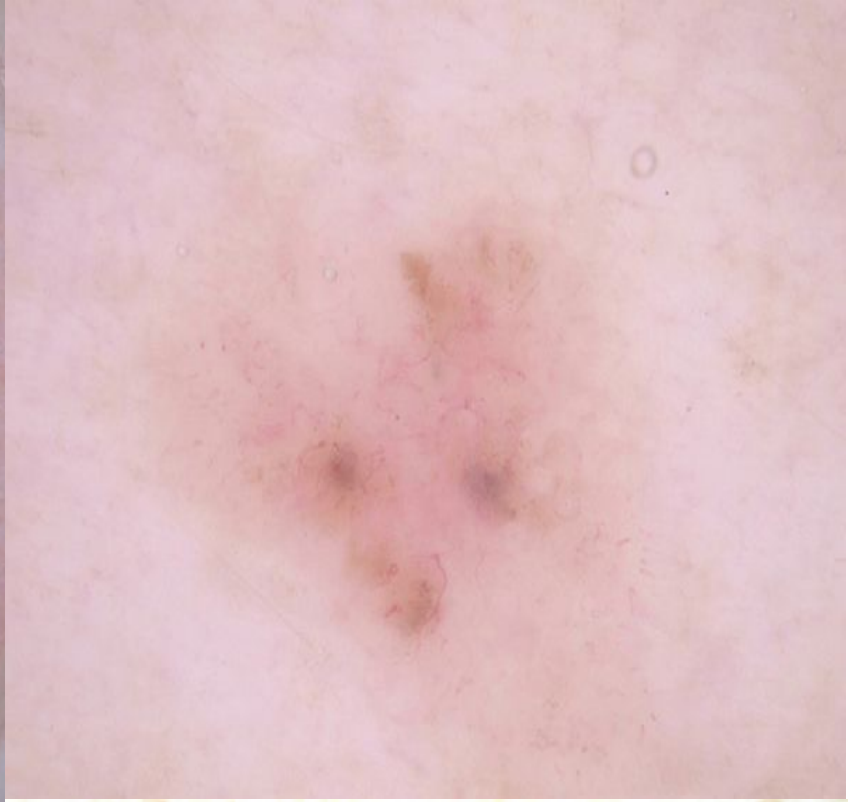
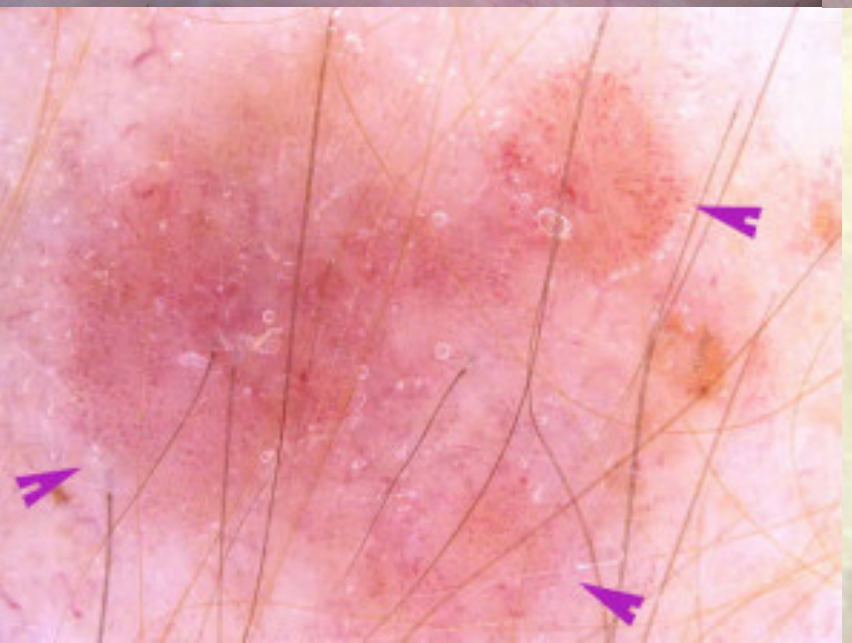
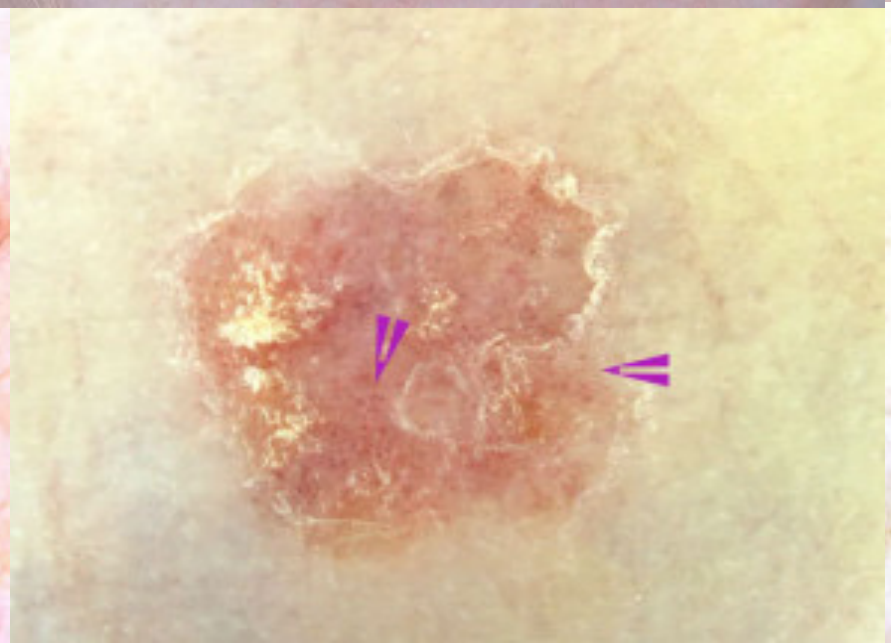
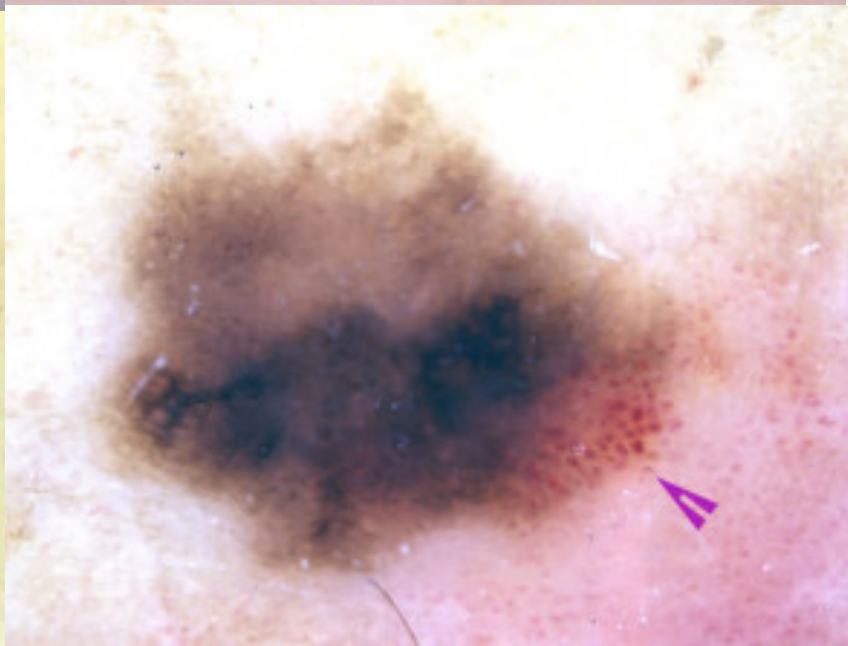




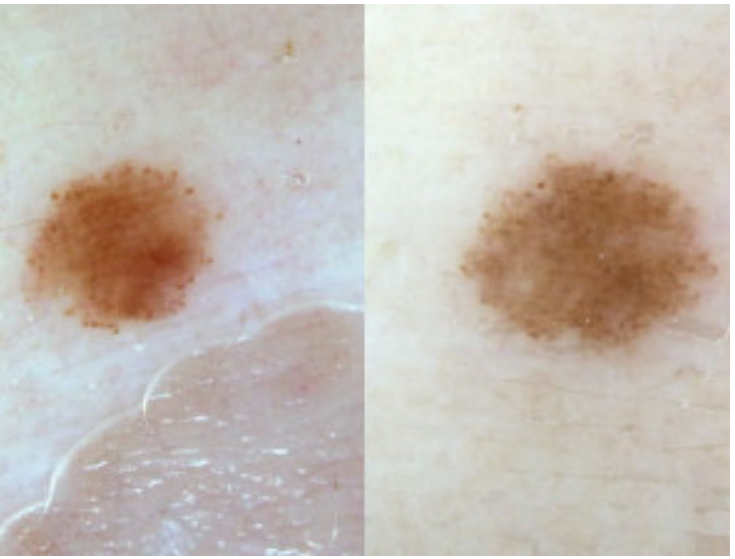
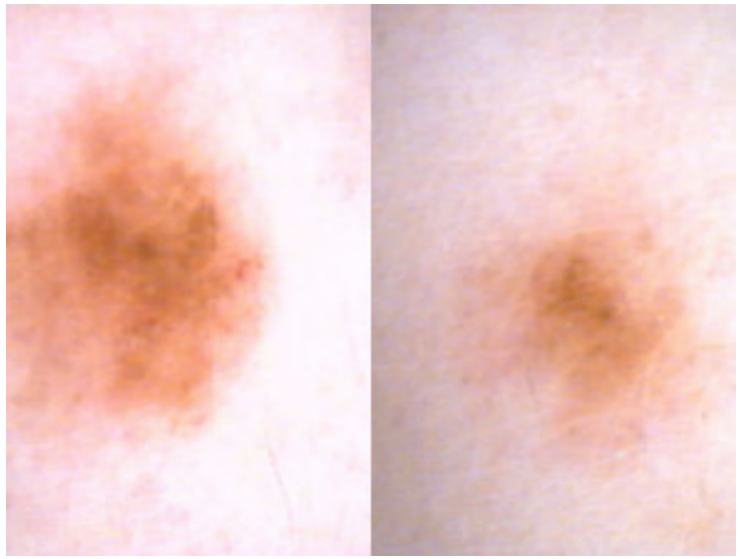
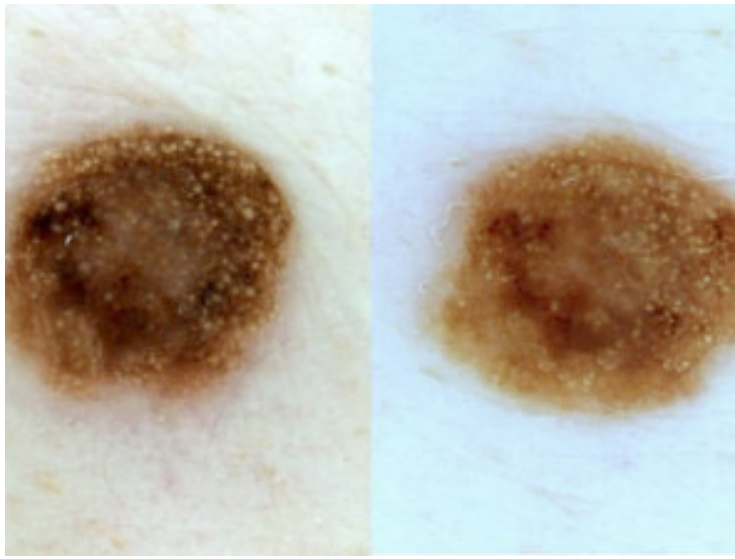
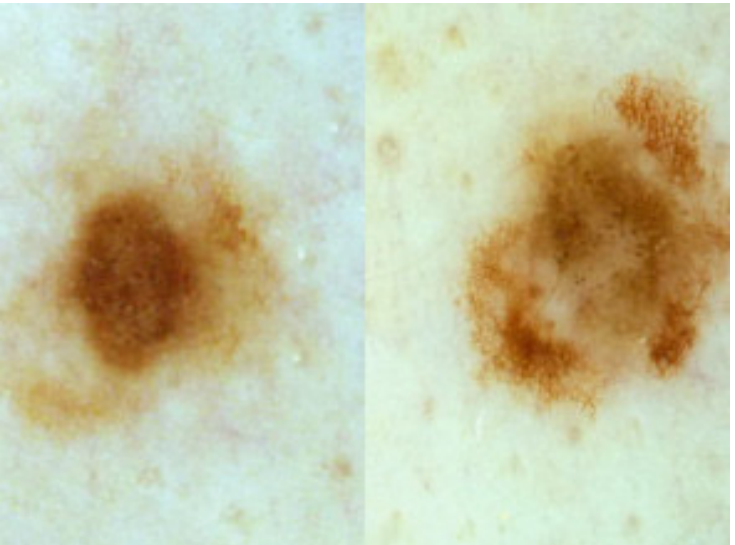
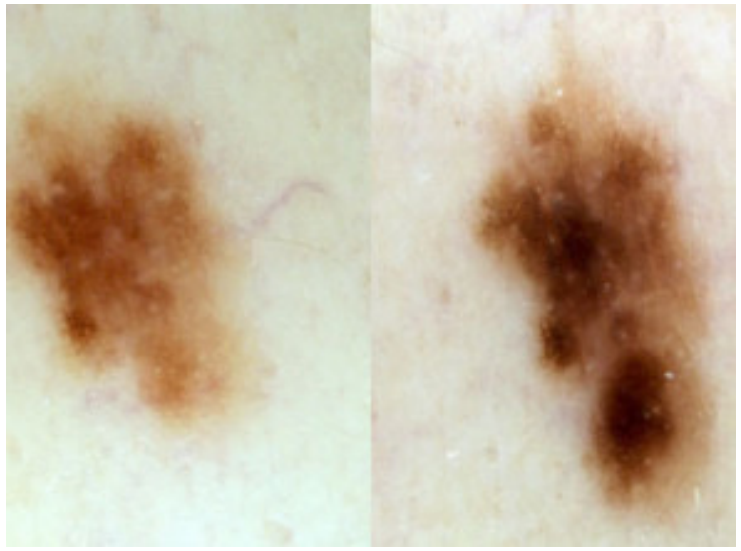
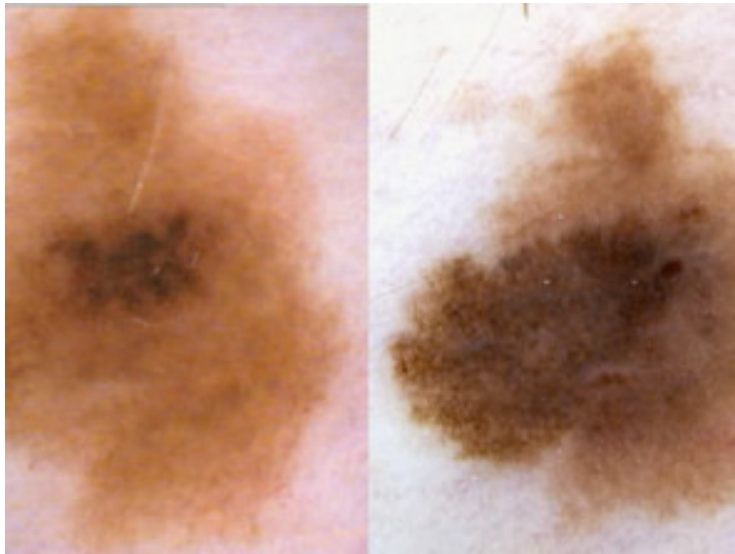


Abnormal Vessels

Monitoring – Not for raised lesions, up to 3 month f/u, take pics

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Carli P, de Giorgi V, Crocetti E et al. Improvement in benign/malignant ratio in excised melanocytic lesions in the 'dermoscopy era': a retrospective study 1997-2001. Br J Dermatol 2004; 150: 687-92

Cyr P, et al. Teaching Skin Cancer Detection to Medical Students Using a Dermoscopic Algorithm. PRiMER. 2021;5:6

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Rosendahl C, Williams G, Eley D et al. The impact of subspecialization and dermatoscopy use on accuracy of melanoma diagnosis among primary care doctors in Australia. J Am Acad Dermatol 2012;67: 846-52

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Vestergard ME, Macaskill P, Holt PE et al. Dermoscopy compared with naked eye examination for the diagnosis of primary melanoma: a meta-analysis of studies performed in a clinical setting. Br J Dermatology 2008; 159: 669-76

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Wolner ZJ, et al. Enhancing Skin Cancer Diagnosis with Dermoscopy. Dematol Clin; 2017 Oct; 35(4): 417-437

References – Images:

- DermnetNZ.org
- Dermoscopedia

Resources to Learn More

Online free – International Dermoscopy Society - https://dermoscopy-ids.org/education-elearning/links/

- DermNet NZ
- TADA - https://sites.psu.edu/dermoscopy/
- http://dermoscopymadesimple.blogspot.com/
- http://dermoscopic.blogspot.com/
- Dermoscopy Atlas(.com)
- Dermlite – On the Spot monthly free webinar series
- DermaHighlights
- International Dermoscopy Society
  - https://dermoscopy-ids.org/education-elearning/links/

- Mobile App “Dermoscopy Two Step Algorithm” by Usatine Media Free! Contains TADA algorithm as well.

Books

- James N, et al. *Pocket Guide to Dermoscopy*, 2017
- Marghoob A, et al. *Atlas of Dermoscopy*. 2nd ed, 2012
- Markowitz, et al. *A Practical Guide to Dermoscopy*, 2017
- Rosendahl, C & Marozava, A. *Dermatoscopy and Skin Cancer: A handbook for hunters of skin cancer and melanoma,* 2019
- Soyer P, Argenziano G, Hofmann-Wellenhof R, Zalaudek I. *Dermoscopy: The Essentials*, 2nd ed, 2012

Online Paid Courses

- http://www.skincancercourses.com.au/certificate-diploma-courses-in-dermoscopy
  - 8 Modules with webinars, online discussion boards, start anytime, $1795

- https://www.cardiff.ac.uk/professional-development/available-training/short-courses/view/an-introduction-to-dermoscopy
  - 12 weeks (next start 8/22/22) – six two week modules with case fora and tutoring, $1435

Conferences

- 11th American Dermoscopy Meeting – July 13-15 2023 Stowe VT
- Mayo 17th Annual Practical Course in Dermoscopy & Update on Malignant Melanoma 2022 – Dec 2-4 2023 Coronado CA
- 6th World Congress of Dermoscopy – Oct 16-19 2024 Buenos Aires, Argentina
- AAD, STFM, AAFP

Questions???

- William.Bowen@stvin.org
- 914-629-8802