MALIGNANT SKIN TUMORS

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MELANOMA

DEFINATION :

MELANOMA RESULTS FROM MALIGNANT TRANSFORMATION OF MELANOCYTES - CELLS DERIVED FROM NEURAL CREST & PRODUCE MELANIN

EPIDEMIOLOGY

-INCIDENCE OF MELANOMA INCEREASING WORD WIDE
- 3 TO 8% Per Year
-Cutaneous Melanoma represents 5% of all types of Newly developing Cancers in Man
-Life time Risk of development of invasive Melanoma
-could reach 1 in every 50 by 2010
-Responsible for 7400 deaths in 2002

RISK FACTORS FOR CUTANEOUS MELANOMA

1. PIGMENTARY CHARACTERISTICS
   Blue Eyes
   Blond, fair or red Hair
   Light complexion
2. RESPONSE TO SUN EXPOSURE
   Freckling Tendency
   Inability to Tan But Sunburn
3. FAMILY HISTORY OF MELANOMA
   P16/BRAF MUTATONS
4. NEVI
   Dysplastic Nevi
   Changing Moles
5. IMMUNOSUPPRESSION

TYPES OF MELANOMA

- Lentigo Meligna Melanoma
- Superficial Spreading Melanoma
- Nodular Melanoma
- Acral Lentiginous Melanoma
- Melanoma of Mucosa
- Desmoplastic Melanoma

CLINICAL FEATURES OF MELANOMA

TYPE OF MELANOMA	FREQUESCY & SITES	CLINICAL FEATURE
TYPES WITH RADIAL GROWTH PHASE		
SUPERFICIAL SPREADING MELANOMA	70% LOWER LEGS/BACK	**RAISED BORDERS** **PINK, BROWN, GRAY LESIONS**
ACRAL LENTIGINOUS MELANOMA	**10%** **SOLE,PALMS, MUCOSA SUBUNGUAL**	**FLAT,IRREGULAR BORDER**
LENTIGO MELIGNA MELANOMA	**5%** **NOSE,CHEEKS,TEMPLE**	**BROWN MACULAR LESIONS WITH VARIATON IN PIGMENT**
TYPES OF NON RADIAL GROWTH PHASE		
NODULAR MELANOMA	**15%** **ANY SITE**	**NODULES ARISES IN APRENTLY NORMAL SKIN** **MAY BE AMELANOTIC**

LENTIGO MELIGNA MELANOMA

MALIGNANT MELANOMA

SUPERFICIAL SPREADING MELANOMA

SUPERFICIAL SPREADING MELANOMA

MELANOMA

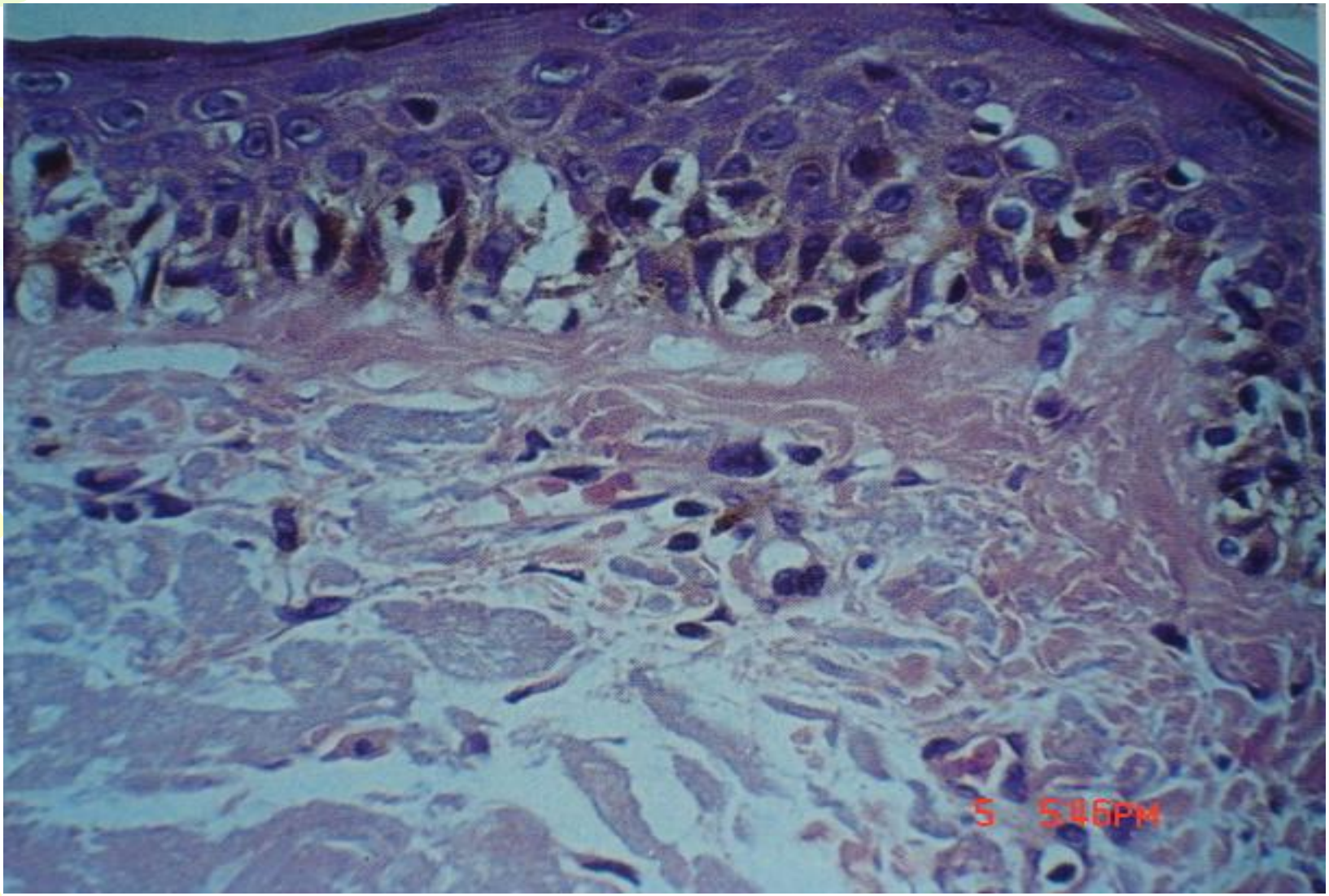
NODULAR MELANOMA

Acral Lentiginous Melanoma

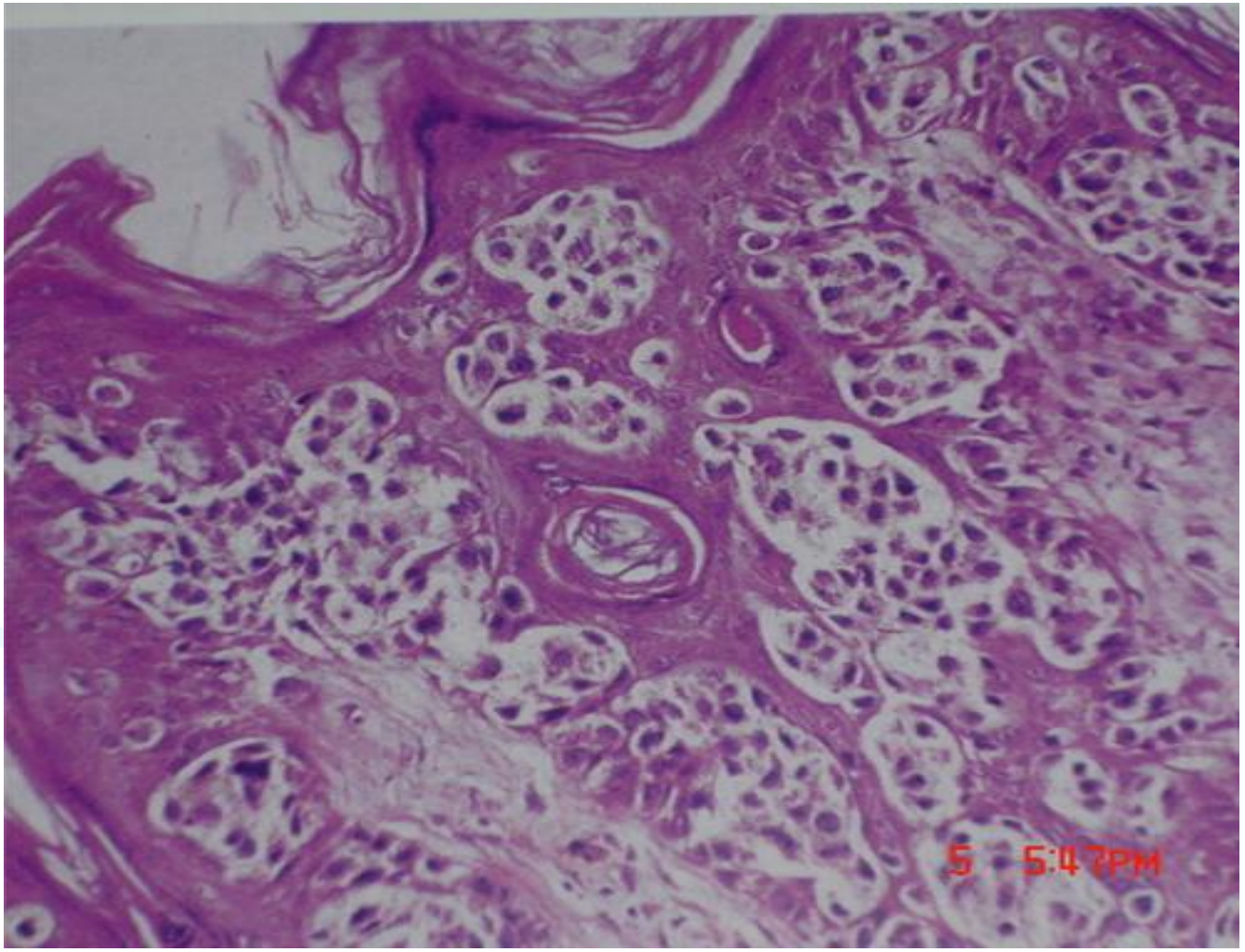
Acral Lentiginous Melanoma

Acral Lentiginous Melanoma

HISTOPATHOLOGY X45

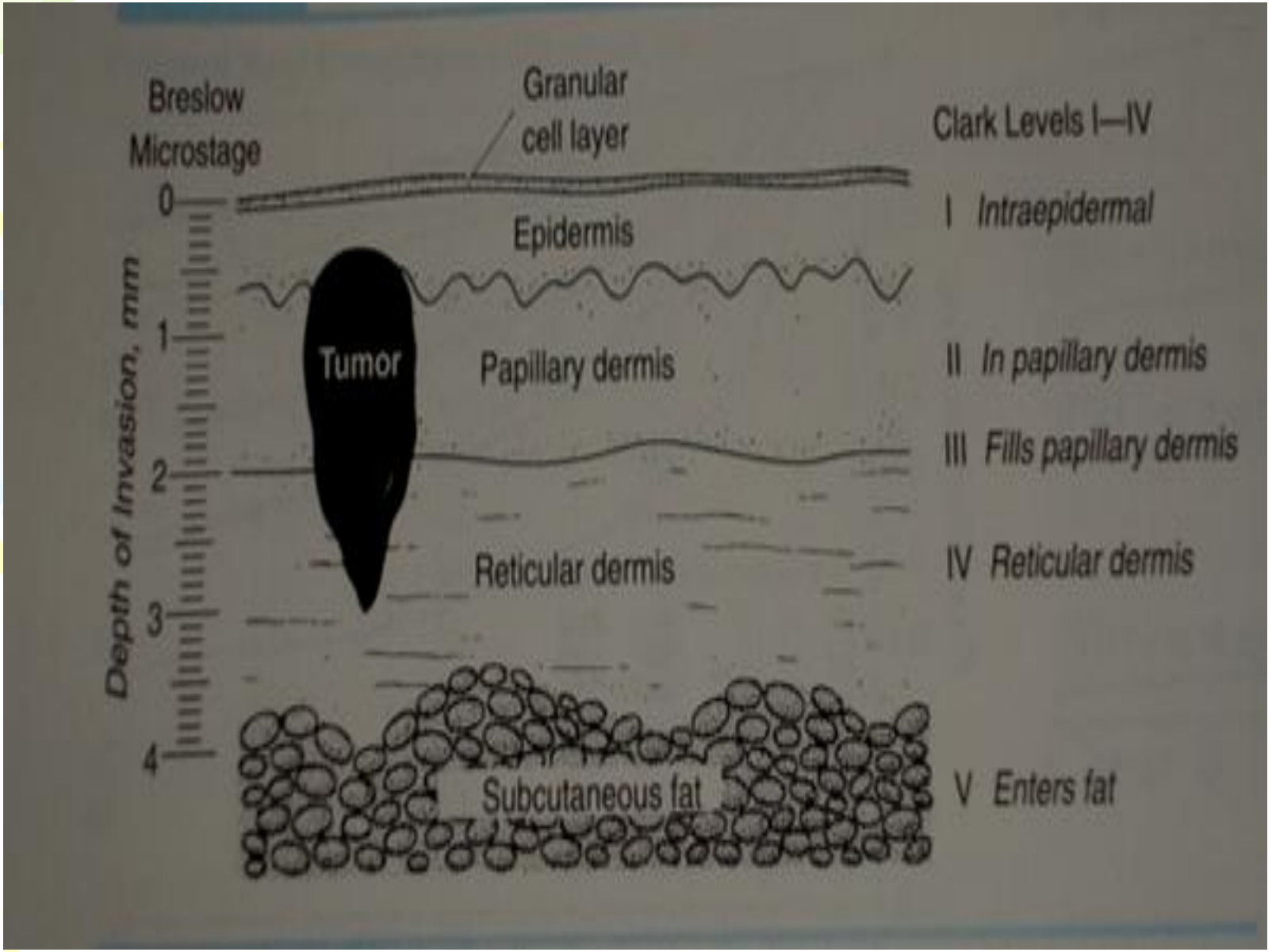


HISTOPATHOLOGY



METASTASIS

- SKIN, SUBCUTANEOUS TISSUE & DISTANT LYMPH NODES - 42 TO 57%
- LUNGS – 18 TO 36 %
- LIVER - 14 TO 20 %
- BRAIN - 11 TO 17 %
- BONE - 11 TO 17 %


Breslow
Microstage
Granular
cell layer
Clark Levels I—IV
0
Epidermis
I Intraepidermal
Depth of Invasion, mm
1
Tumor
Papillary dermis
II In papillary dermis
2
III Fills papillary dermis
Reticular dermis
IV Reticular dermis
3
4
Subcutaneous fat
V Enters fat

CLINICAL DIAGNOIS

- A – Asymmetry
- B – Border characteristics-Notched, scalloped, irregular
- C – Color – Mottled, Haphazard, brown, black, gray, pink, white, blue
- D – Diameter - >6mm
- Persistently changing pigmented lesions
- Changing size & color
- Development of new pigmented lesions & multiple halo nevi

PROGNSTIC FACTORS FOR MELANOMA

- **CLINICAL VARIABLES**
- AGE – worse with increasing age
- SEX – Women better prognosis then Men
- ANATOMIC SITES – Lesions at Head & neck versus extremities
- **HISTOLOGICAL VARIABLES OF REGIONAL LYMPH NODES**

  Histological Negative Nodes Versus Positive Nodes
- **HISTOLOGICAL VARIABLES OF PRIMARY TUMOR**
- Tumor Thickness
- Level of Invasion
- Radial Versus vertical Growth phase
- Mitotic rate
- Ulceration
- Lymphoid Response
- Microscopic Satellite
- Vascular invasion

MANAGEMENT

- SURGICAL
- ELECTIVE LYMPH NODE DISSECTION
- SENTINEL LYMPH NODE BIOPSY
- CHEMOTHERAPEUTIC AGENTS

  MELPHALAN

  INF-alfa2a

  DACARBAZNE
- RADIATION THERAPY
- IMMUNOTHERAPY –BCG VACCINE

SQUAMOUS CELL CARCINOMA

- **DEFINATION** –
- CUTANEOUS SQUAMOUS CELL CARCINOMA (SCC)
- A MALIGNANT NEOPLASM DERIVED FROM *SUPRABASAL EPIDERMAL KERATINOCYTES*
- SCC - REPRESENTS A BROAD SPECTRUM OF DISEASE RANGING FROM EASILY MANAGED SUPERFICIALLY INVASIVE CANCER TO HIGHLY INFILTRATIVE, METASTASING TUMOR THAT MAY LEADS TO DEATH

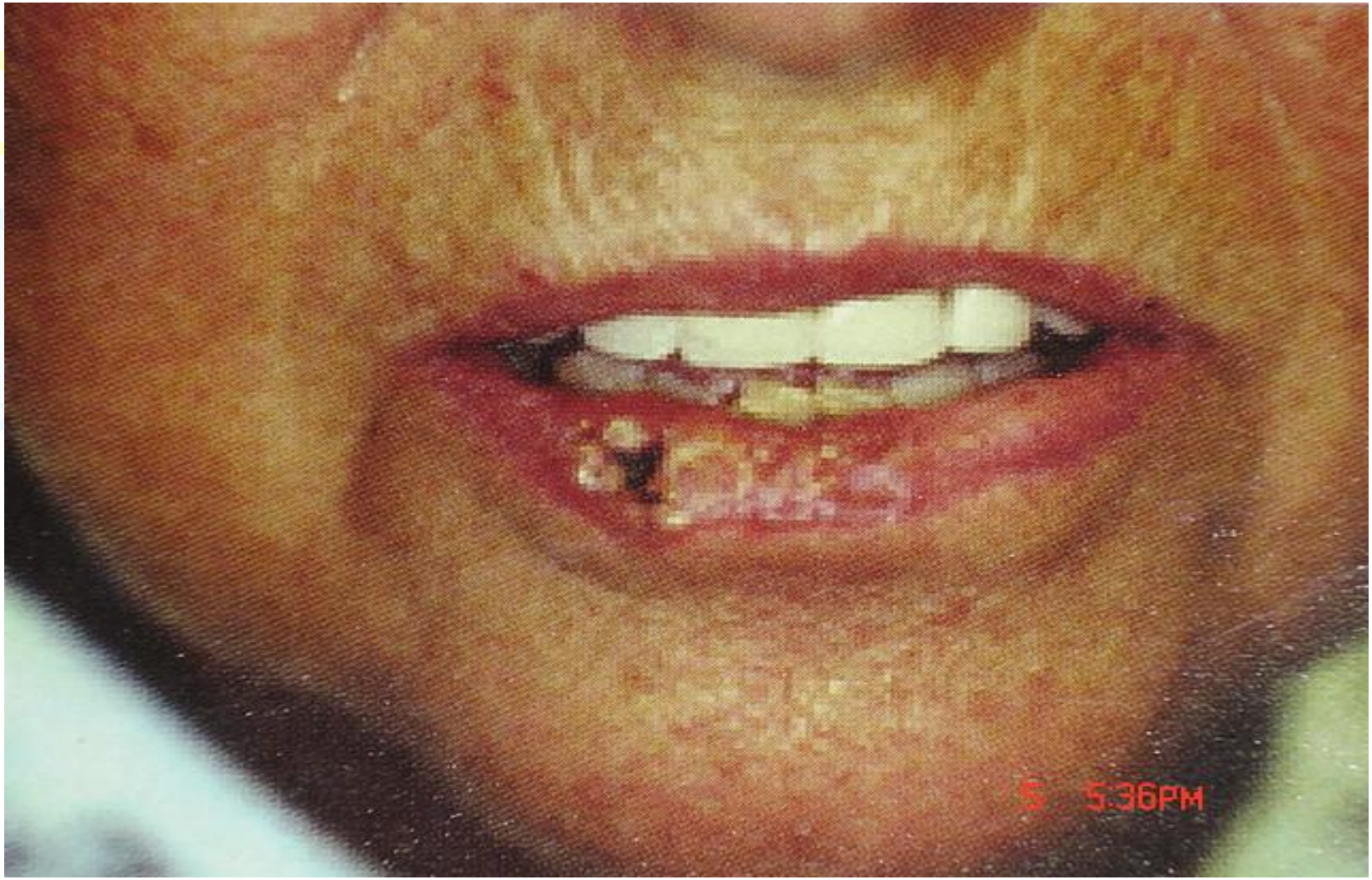
PREDISPOSING FACTORS FOR SCC

- PRECURSOR LESIONS-AK,BOWN'S DISEASE
- UV EXPOSURE
- IONIZING RADIATION
- ENVIRONMENTAL CARCINOGENS
- IMMUNOSUPPRESSION
- SCARS
- BURNS OR CHRONIC HEAT EXPOSURE
- CHRONIC SCARING OR INFLAMMATORY DERMATOSES
- HPV INFECTION
- GENODERMATOSES –
  XERODERMA PIGMENTOSUM, ALBINISM

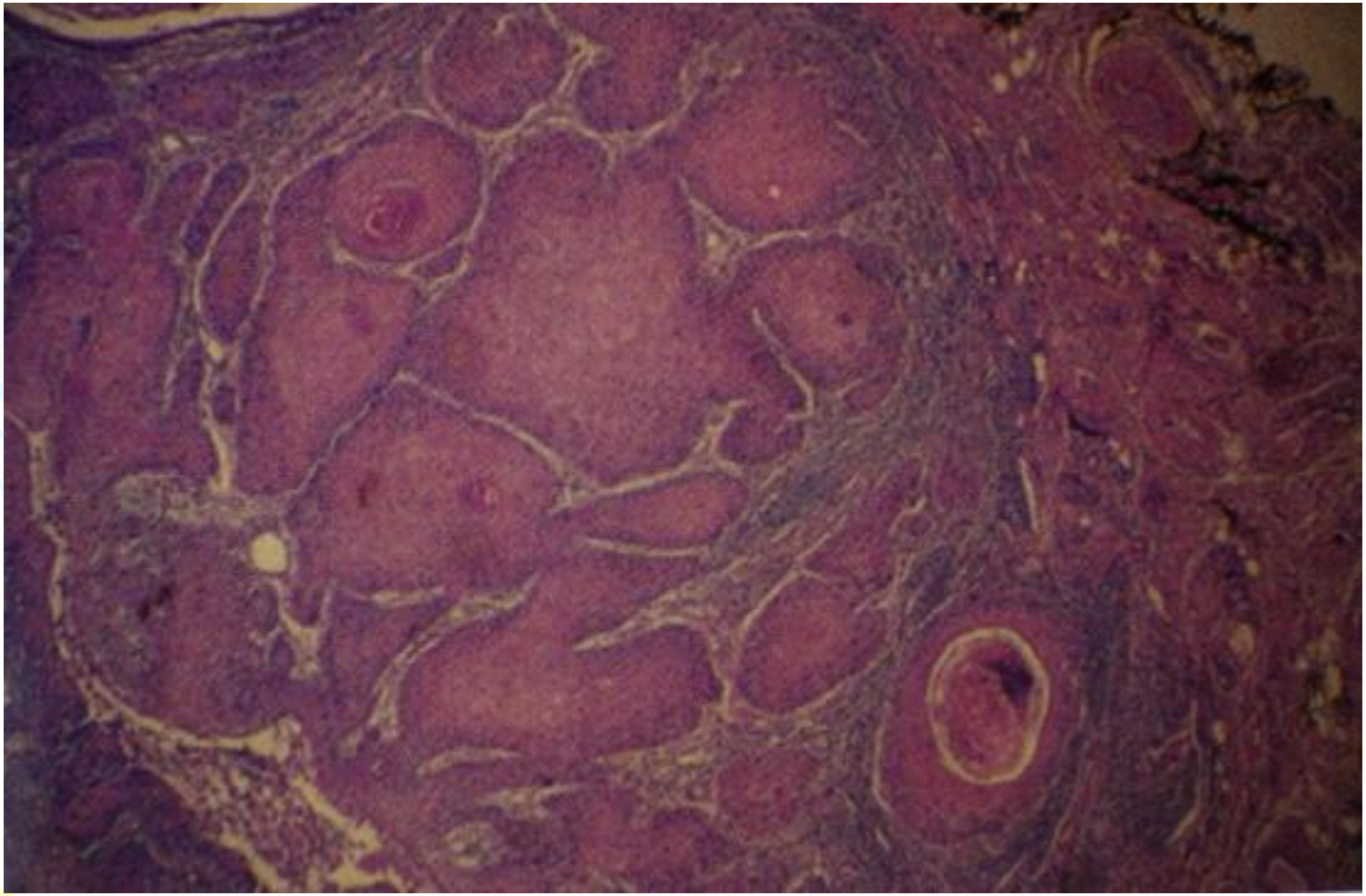
SCC

SCC

SCC AT LOWER LIP



HISTOPATHOLOGY



BRODERS' GRADING FOR SCC

- GRADE % UNDIFFRENTIATED CELLS OTHER FEATURES

- 1 < 25 KERATINIZATON
- 2 < 50
- 3 < 75
- 4 > 75 CELLULAR ATYPIA, LOSS OF INTRACELLULAR BRIDGES

HIGH-RISK FOR SCC

- DIAMETER GREATER THEN 2 cm
- DEAPTH GREATER THEN 4 mm
- TUMOR INVOLEMENT OF BONE, MUSCLE
- TUMOR LOCATION ON EAR,LIP
- TUMOR ARISING IN SCAR
- BORDERS, GRADE 3 OR 4
- IMMUNOSUPPRESSION
- ABSENCE OF INFLAMMATORY INFILTRATE

TREATMENT

- SURGICAL EXCISION
- RADIATION
- NON EXCISIONAL TECHNIQUES
- MOHS SURGERY

BASAL CELL CARCINOMA

- **DEFINATION**
- *BCC - IS A MALIGNANT NEOPLASM DERIVED FROM NONKERATINIZING CELLS THAT ORIGINATE IN THE BASAL LAYER OF THE EPIDERMIS*
- *BCC ACCOUNTS FOR 75% OF ALL NONMELANOMA SKIN CANCERS*
- *25 % OF ALL CANCERS DIAGNOSED*
- *TUMOR DEVELOPS ON SUN-EXPOSED SKIN OF LIGHTER SKINNED INDIVIDUALS*
- *30% OCCURS ON THE NOSE*
- *UVL EXPOSURE – UVB*
- *MUTATION IN THE PTCH REGULATORY GENE*

CLINICAL MANIFESTATION

- FRIABLE,NONHEALING LESION
- TRANSLUCENCY
- ULCERATION
- TELANGIEACTASIA
- NODULAR BCC
- PIGMENTED BCC
- SUPERFICIAL BCC
- MORPHEAFORM BCC

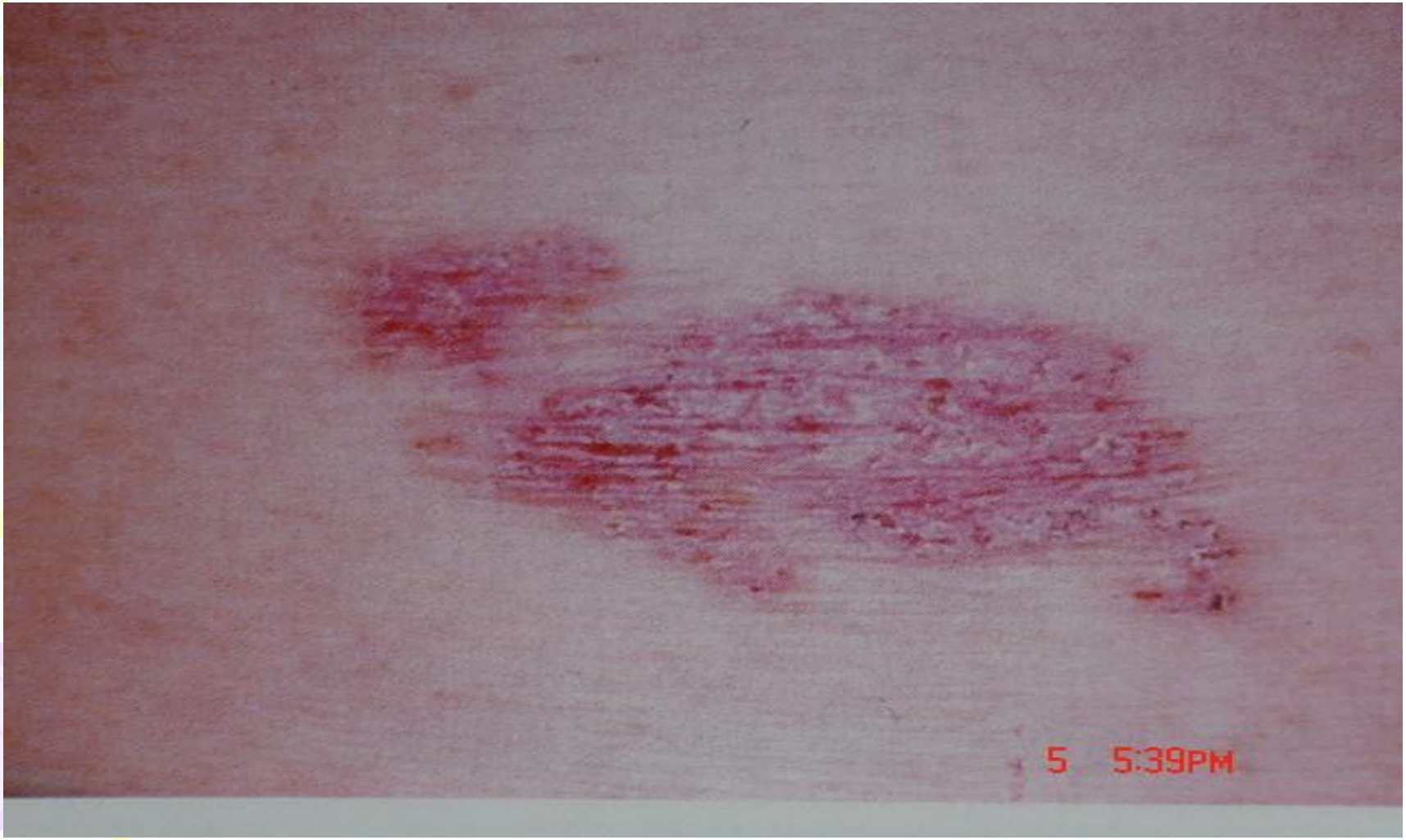
BCC

PIGMENTED BCC

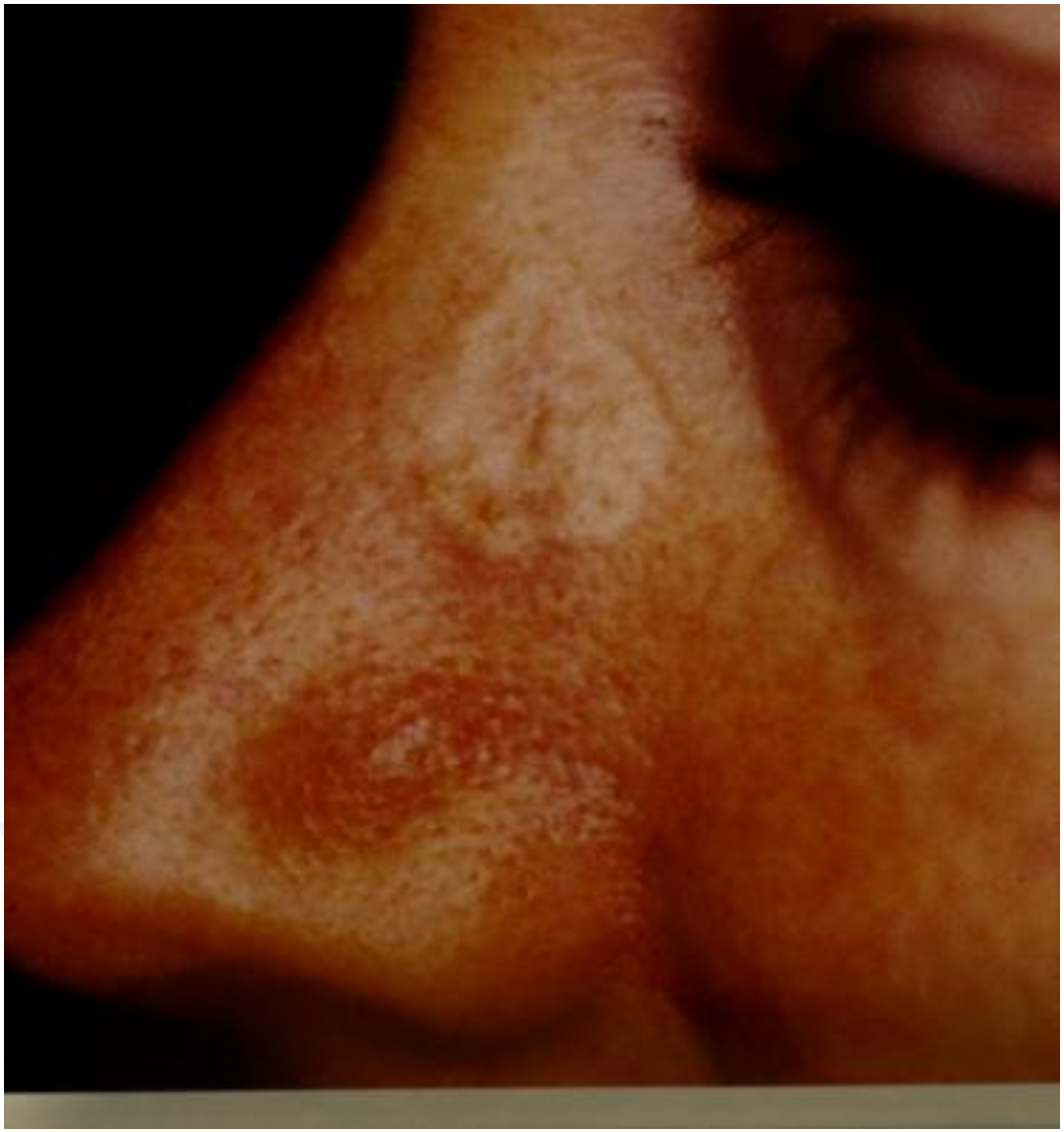
NODULAR BCC

ULCERATED BCC

SUPERFICIAL SPREADING TYPE



MORPHEAFORM BCC

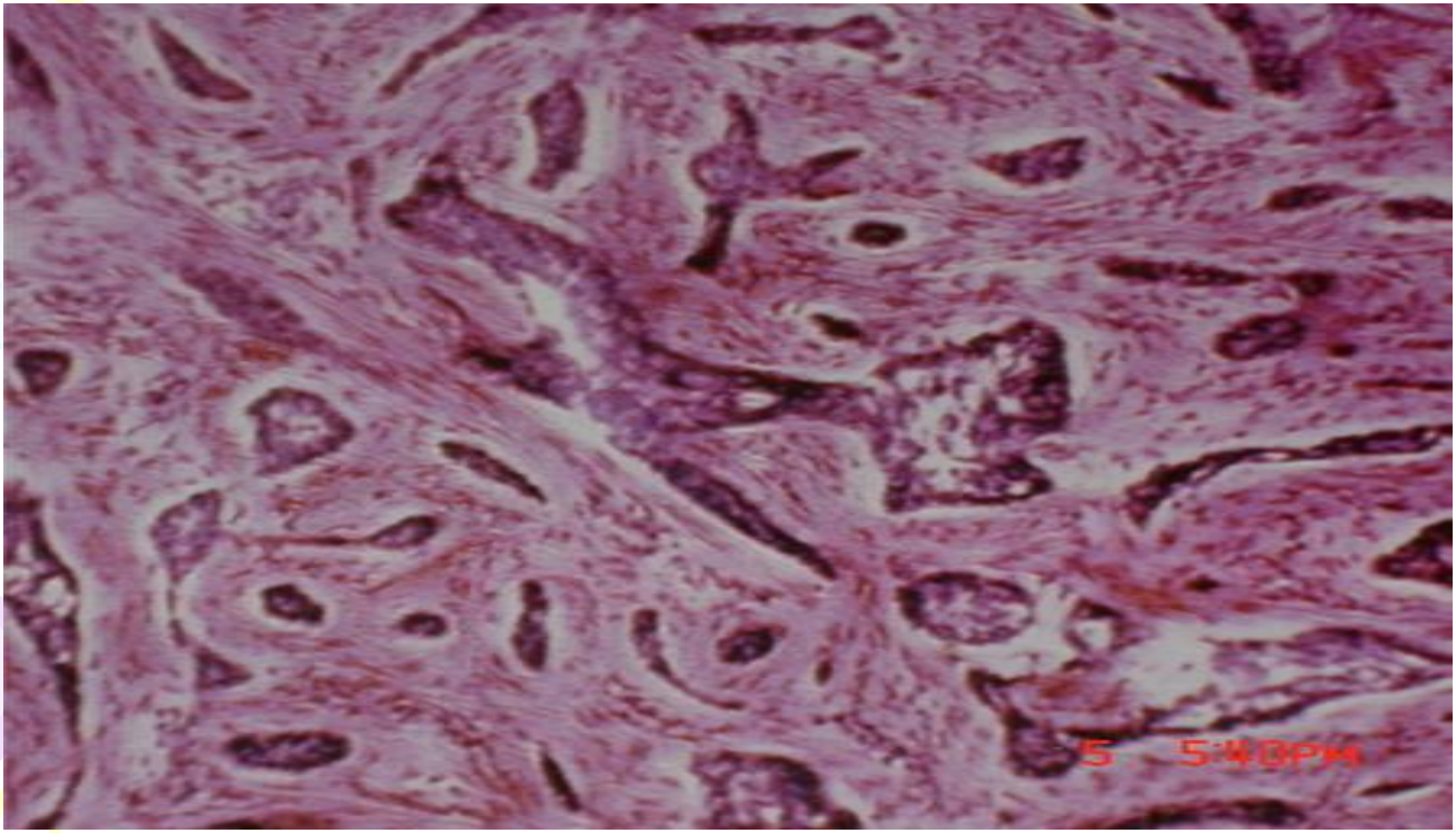


RODENT ULCER

HISTOPATHOLOGY

- MALIGNANT CELL-
- LARGE NUCLEI & LITTLE CYTOPLASM
- LITTLE CELLULAR ATYPIA OR NOT AT ALL
- MITOTIC FIGURES ABSENT
- RETRACTION OF STROMA FROM TUMOR ISLAND IS PRESENT-
- CREATING PRITUMORAL LACUNAE-HELPFUL HISTOPATHOLOGICAL DIAGNOSIS

HISTOPATHOLOGY X45



TREATMENT

- SURGICAL EXICSION
- CRYOSURGERY
- CURETTAGE & DESICCATION
- TOPICAL TREATMENT
  - IMIQUIMOD - IFN-alfa,IL-12
  - 5 FLUOROURACIL
- PHOTODYNAMIC THERAPY
- RADIATION THERAPY

CUTANEOUS T CELL LYMPHOMA

- CLINICAL FEATURES – MYCOSIS FUNGOIDES
- PLAQUES & PATCHES
- HYPOPIGMENTED
- PIGMENTED PURPURA
- ALOPECIA MUCINOSA
- ERYTHRODERMIC – SEZARY'SYNDEROME
- TUMORS
- IMMUNOPHENOTYPIC SYNDROMES –
- *CD8+*
- *GAMMA-DELTA T CELL +*
- *NK CELL +*