



Case Management, Presentation and Discussion and Sharing of Information on Skin and Soft Tissue Tumor



Nolan Ortega Aludino, M.D.



General Data

T.A.

52-year-old

Male

Manila



Chief Complaint

“Slowly growing mass on his left foot”



History of Present Illness

1 year PTC



→ Patient noted changes on a previous nevus on the plantar aspect of his big toe on the left foot

He noticed an increase in size and borders becoming irregular



History of Present Illness

8 months PTC → Persistence of lesion with increase in size

Appearance of a darker area within the lesion, pruritic, scaly, occasional bleeding





History of Present Illness

few mos PTC → Persistence of the lesion
with increase in size.





Past Medical History

- 1995 – PTB with completed 6 month treatment
- No prior surgeries
- No known allergies



Family Medical History

- denies history of heredofamilial disease



Personal and Social History

- 50 pack year smoking history
- Alcoholic beverage drinker



Review of Systems

- no body weakness, no fever
- no tinnitus, no headache, no dizziness
- no dysuria, no hematuria, no oliguria
- no melena



Physical Examination

General Survey: conscious, coherent, not in distress

Vital Signs:

BP= 120/80

CR= 80's

RR= 20's

T=37.3°C



Physical Examination

HEENT: anicteric sclerae, pink palpebral conjunctivae, no nasoaural discharge, no cervical lymphadenopathies



Physical Examination

Chest and Lungs: symmetrical chest expansion, no retractions, no lagging, clear and equal breath sounds

Cardiac: normal rate, regular rhythm, no murmur



Physical Examination

Abdomen: flat, normoactive bowel sounds, soft non-tender



Physical Examination

Extremities: Grossly normal, full and equal pulses, palpable inguinal mass, 4 x 4, movable, hard, non tender





Physical Examination

Extremities: on the plantar aspect of the first digit of the left foot - 3 x 3 cm lesion, non tender, foul smelling, irregular borders, non homogenous in color, brown → black



Physical Examination

Digital Rectal Examination: no skin tags, good sphincteric tone, collapsed rectal vault, no mass palpated, no feces on tactating finger



Salient Features

- 52-year-old
- Male
- Slowly growing mass, foot, left
 - Pigmented
 - Irregular borders
 - Pruritic
 - Occasional bleeding
 - Foul smelling
- Presence of inguinal mass



Dark Pigmented Mass on the Skin

Inflammatory

Non Inflammatory



**Non
Inflammatory**

Benign

Malignant



**Dark Pigmented
Mass on the
Skin**

Benign

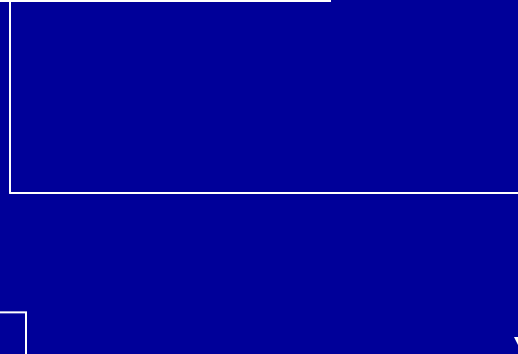
- Nevus
- Warts



Dark Pigmented Mass on the Skin

- Basal Cell Carcinoma
- Cutaneous Melanoma

Malignant





**Non
Inflammatory**





Clinical Diagnosis

	<i>Diagnosis</i>	<i>Degree of Certainty</i>	<i>Treatment</i>
<i>Primary</i>	Cutaneous Melanoma	80%	Surgical
<i>Secondary</i>	Basal Cell Carcinoma	20%	Surgical



Paraclinical Diagnostic Procedure

- Do I need to perform a paraclinical diagnostic procedure?

“Yes”

- Low degree of certainty



Paraclinical Diagnostic Procedure

	Benefit	Risk	Cost	Availability
Excision	Yield : ++++	bleeding	+	Available
Incision	Yield : +++	bleeding	+	Available
Punch	Yield : ++	bleeding	++	Not readily available
Shave Biopsy	Yield : ++	bleeding	+	Available



Paraclinical Diagnostic Procedure

- Incisional biopsy done:
“Malignant Melanoma”



Pre-treatment Diagnosis

	<i>Diagnosis</i>	<i>Degree of Certainty</i>	<i>Treatment</i>
<i>Primary</i>	Malignant Melanoma	95%	Surgical
<i>Secondary</i>	Basal Cell Carcinoma	5%	Surgical



Goals of Treatment

- Resolution of the mass
- Prevent complications



Treatment Options

	Benefit	Risk	Cost	Availability
Disarticulation	SR = ↓	Infection	+	Available
Disarticulation with Lymph Node Dissection	5 year survival = 70%	Infection (++) Lymphedema	+	Available



Treatment Plan

Disarticulation
with Inguinal Node Dissection



Pre Operative Management

- Secure consent
- Psychosocial support
- Optimize patient
- Prepare materials



Operative Technique

- Patient supine under SAB
- Asepsis / Antisepsis
- Sterile drapes placed
- Incision placed over the metatarsophalangeal joint of the 1st digit of the left foot
- Tendon and soft tissue cut
- Blood vessels ligated



Operative Technique

- Metatarsophalangeal joint of the 1st digit left foot, separated
- Periosteum closed
- Skin closed with simple interrupted suture using Silk 4-0



Operative Technique





Operative Technique

- S – incision placed from the ASIS to the medial aspect of the proximal third of the thigh
- Superior and inferior flaps created
- Intraoperative findings noted
- Sartorius, Inguinal Ligament and adductor longus identified
- Fat and nodal tissue over the femoral triangle removed



Operative Technique

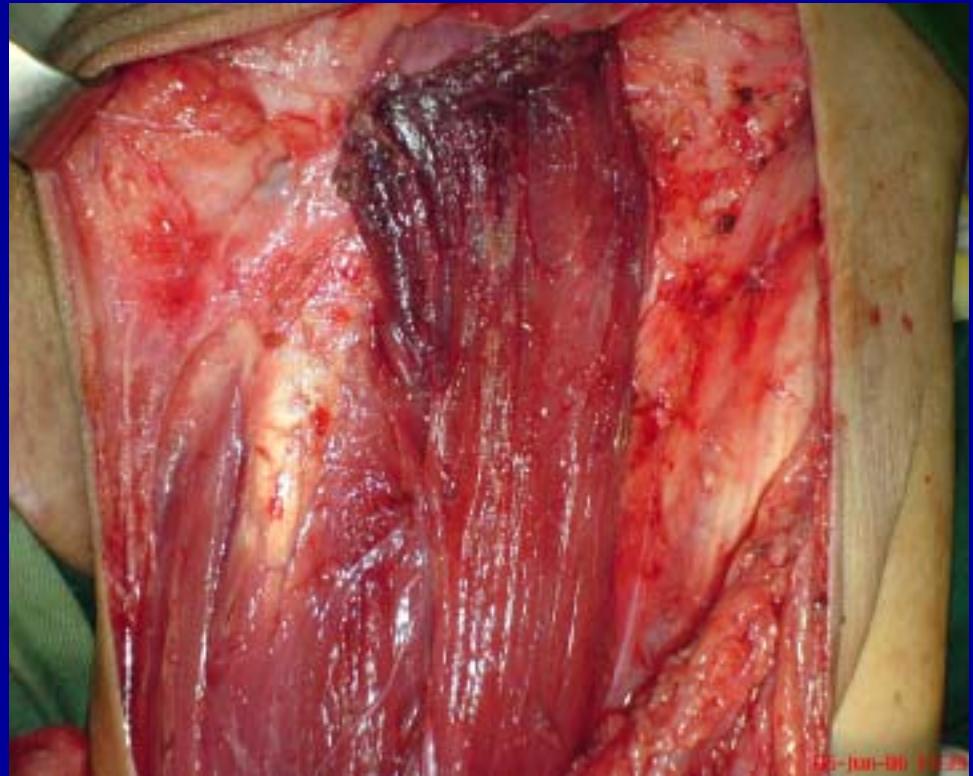
- Femoral artery, vein and nerve were identified and spared
- Hemostasis





Operative Technique

- Sartorius muscle cut at its origin and transpositioned over the femoral vessels
- Hemostasis





Operative Technique

- Jackson Pratt drain placed
- Correct needle, sponge and instrument count done
- Layer by layer closure
- DSD





Intraoperative Findings

- Fleshy mass noted at the plantar aspect of the 1st digit of the left foot approximately 3 x 3 cm, foul smelling
- On disarticulation, a 2 x 2 cm black mass was noted at the interphalangeal web of the 1st and 2nd digit, foot, left.



Intraoperative Findings

- On inguinal dissection, a 4 x 3 cm mass was noted within the femoral triangle.
- Flesh colored lymph nodes were noted at the area near the inguinal ligament
- 0.5 x 0.5 cm black mass noted at the femoral apex.





Procedure Done

Disarticulation, Metatarsophalangeal Joint,
First Digit, Foot, Left
Inguinal Node Dissection, Left



Final Diagnosis

Malignant Melanoma, 1st Digit, Foot, Left

T4aN1bM0 (Stage IIIB)

s/p Disarticulation, Metatarsophalangeal
Joint, First Digit, Foot, Left

s/p Inguinal Node Dissection, Left



Histopathologic Diagnosis

Malignant Melanoma, Clark's Level V



Post-operative Management

first post operative day → regular diet resumed
adequate hydration
adequate analgesia
drain kept with negative pressure
Proper wound care
supportive care



Post-operative Management

second post operative day → patient discharged



After Managing the Patient

- I HAVE DISCHARGED MY PATIENT :
 - IMPROVED
 - FREE OF COMPLICATIONS



Discharge Advise

- Daily wound care
- Ff up at Surgery OPD after 1 week
- Possibility of recurrence



Sharing of Information



Melanoma

- only 4% of diagnosed skin cancer is melanoma
- melanoma is the most serious form of skin cancer because of its ability to spread.
- cure rate with dermatological surgery is about 95% if caught early



Melanoma

Four types:

1. Superficial spreading
2. Nodular
3. Lentigo maligna
4. Acral lentiginous



Melanoma

- Melanoma can appear anywhere on the body — soles, palms, inside the mouth, genitalia, and underneath nails.



Melanoma

- Most common sites:
 - Back
 - Buttocks
 - Legs
 - Scalp
 - Neck
 - Behind the ears



Melanoma

- **Warning signs**
 - Melanoma often develops in a pre-existing mole that begins to change or a new mole
 - It is estimated that 20% to 40% of melanomas arise from an atypical mole



Melanoma

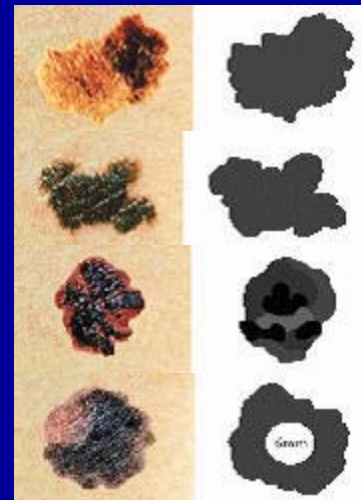
- **ABCDs of melanoma detection:**

Asymmetry

Border

Color

Diameter





Melanoma

- Other warning signs of melanoma include:
 - Change in the appearance of a mole, such as the spreading of the pigment from the border of the mole into the surrounding skin
 - A mole that looks scaly, oozes, or bleeds
 - Itching, tenderness, or pain in a mole or lesion
 - Brown or black streak that appears underneath a nail or around the nail
 - Bruise on the foot that does not heal



Melanoma

The stage is determined by the:

- ***Depth*** (how deeply the tumor has penetrated the skin)
- ***Ulceration*** (a break, which can be microscopic, forms on the surface of the tumor and the cells on the surface die and are sloughed off)
- ***Lymph node involvement***, which indicates if the cancer has metastasized (spread) to the lymph nodes
- ***Metastasis*** to distant organ(s)



Melanoma

Stage	Medical Notation		Characteristics	5-Year Survival Rate
Stage 0	Tis	NO MO	What dermatologists call in situ melanoma . The cancer is limited to the outermost layers of the skin, the epidermis (Tis). No evidence that the cancer has spread to the lymph nodes or distant organs (NO, MO).	99.5% -100%
Stage IA	T1a	NO MO	Thickness of lesion 1 mm or less (T1), the surface of the lesion is not broken (a) (without ulceration), and tumor extends beneath the epidermis to the dermis. No evidence that the cancer has spread to the lymph nodes or distant organs (NO, MO).	≥ 95%
Stage IB	T1b NO MO	T2a NO MO	Melanoma 1 mm or less (T1) but has ulcerated (b), or melanoma is between 1.01 and 2 mm (T2) but has not ulcerated (a). No evidence that the cancer has spread to the lymph nodes or distant organs (NO, MO).	89 – 91%



Melanoma

Stage IIA	T2b NO MO	T3a NO MO	Tumor between 1.01 and 2.0 mm (T2) and has ulcerated (b) or tumor between 2.01 and 4 mm (T3) and without ulceration (a). No evidence that the cancer has spread to the lymph nodes or distant organs (NO, MO).	77 – 79%
Stage IIB	T3b NO MO	T4a NO MO	Tumor between 2.01 and 4 mm (T3) and has ulcerated (b) or tumor is 4mm or greater (T4) and has not ulcerated (a). No evidence that the cancer has spread to the lymph nodes or distant organs (NO, MO).	63 – 67%
Stage IIC	T4b NO MO		Tumor 4 mm (T4) or greater and has ulcerated (b). No evidence that the cancer has spread to the lymph nodes or distant organs (NO, MO).	45%



Melanoma

Stage IIIA	T1-4a N1a MO	T1-4a N2a MO	Thickness of primary tumor ranges from 1 mm and 4 mm or greater (T1-4) and has not ulcerated (a). Evidence that cancer spread to a single regional (nearby) lymph node (N1) or 2–3 regional nodes (N2). N2a indicates cancer less severe than N2b or N2c. No evidence spread to distant organs (MO). At this stage, thickness of tumor no longer the most important prognostic indicator.	63 – 69%
Stage IIIB	Any T N1a – N2c MO		Thickness of primary tumor may be any thickness (T) and may (b) or may not (a) have ulcerated. Evidence that cancer has spread to lymph nodes (N). No evidence spread to distant organs (MO).	30 – 53%
Stage IIIC	Any T Any N MO		Primary tumor can be any thickness and has ulcerated. Evidence of lymph node involvement (N). No evidence spread to distant organs (MO).	24 – 29%

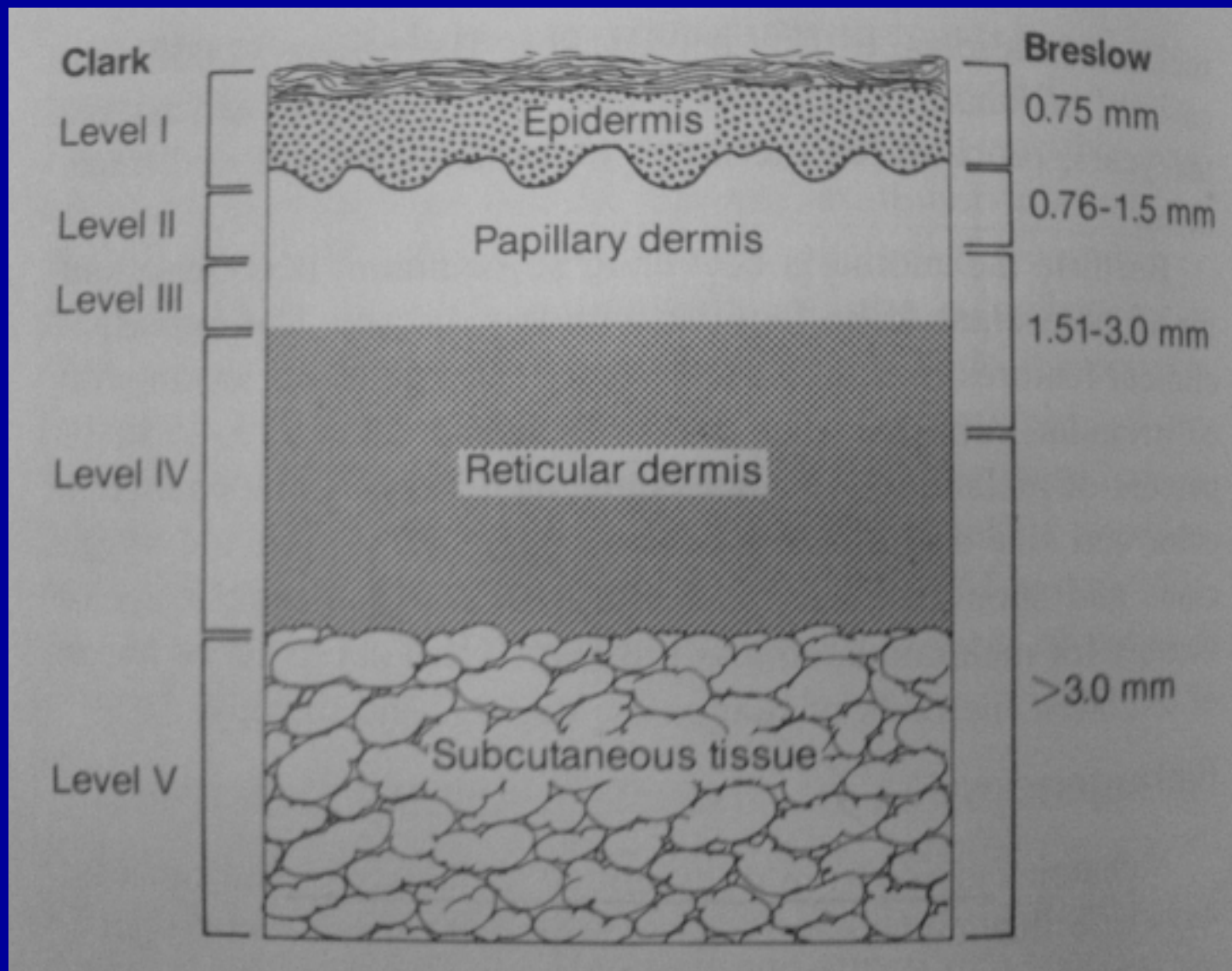


Melanoma

Stage IV	Any T Any N M1a, M1b, M1c	Primary tumor can be any thickness. Evidence of lymph node involvement (N), and melanoma has metastasized (M) to other organs (a = distant skin and subcutaneous tissue, b=lungs, c=all other distant organs, such as the liver or brain.) Prognosis is poor.	7 – 19%
---------------------	------------------------------------	---	----------------



Melanoma





Melanoma

Appropriate Wide Excision Margins for Primary Melanoma

Thickness of Primary	Excision Margin
Melanoma in Situ	5 mm
<1mm	1 cm
1-2mm	1-2 cm
2-4mm	2 cm
>4mm	≥ 2cm



Melanoma

Treatment:

Surgery

1. Amputation
2. Excisional surgery
3. Lymph node dissection
4. Mohs micrographic surgery



Melanoma

Treatment:

Adjuvant Therapy

1. Immunotherapy

1. Cytokine therapy

2. Monoclonal antibody therapy

3. Vaccine therapy

2. Radiation



Melanoma

Follow up:

- Melanomas thinner than 1 mm
 - for physical exams every 6 or 12 months for 2 years
 - If these exams are normal, you can return for a checkup once a year



Melanoma

Follow up:

- thicker melanomas that have not spread to lymph nodes
 - physical exams are done every 3 to 6 months for 3 years, then every 4 to 12 months for the next 2 years
 - After that, exams are done at least once a year, generally for at least 10 years
 - Some doctors also recommend chest x-rays (to detect lung metastases) and certain blood tests (to detect liver or bone metastases) every 6 to 12 months.



Melanoma

Follow up:

- If the melanoma has spread to regional lymph nodes (stage III)
 - usual exam schedule is every 3 to 6 months for 3 years, every 4 to 12 months for the following 2 years, and once a year thereafter
 - Chest x-rays and blood tests may be done every 3 to 12 months for some patients in this group.



References

1. Johnson, TM et al. "Staging Workup, Sentinel Node Biopsy, and Follow-up Tests for Melanoma." *Archives of Dermatology*. 2004.
2. Kanzler, MH et al. "Malignant Melanoma." *Journal of the American Academy of Dermatology*. 2003.
3. Swetter, SM. July 29, 2003. *eMedicine: Malignant Melanoma*.
<http://www.emedicine.com/derm/topic257.html>



MCQ #1

1. What would be the clinical staging for a melanoma which is 4 mm thick, ulcerated, with palpable inguinal node and with no evidence of spread to distant organs.
 - a. Stage IIB
 - b. Stage IIC
 - c. Stage IIIA
 - d. Stage IIIb



MCQ #1

1. What would be the clinical staging for a melanoma which is 4 mm thick, ulcerated, with palpable inguinal node and with no evidence of spread to distant organs.
 - a. Stage IIB
 - b. Stage IIC
 - c. Stage IIIA
 - d. Stage IIb



MCQ #2

2. A melanoma with a thickness of 2-4mm would entail an excision margin of:
- a. 1 cm
 - b. 1-2 cm
 - c. 2 cm
 - d. greater than 2 cm



MCQ #2

2. A melanoma with a thickness of 2-4mm would entail an excision margin of:
- a. 1 cm
 - b. 1-2 cm
 - c. 2 cm
 - d. greater than 2 cm



MCR #1

3. The follow up monitoring scheme for a melanoma has spread to regional lymph nodes (stage III) would be

(a = 1,2,3; b = 1,3; c = 2,4; d = 4 only; e = all)

1. 3 to 6 months for 3 years, then every 4 to 12 months for the next 2 years
2. 3 to 6 months for 3 years, then every 4 to 12 months for the next 2 years. After that, exams are done at least once a year, generally for at least 10 years
3. exams every 6 or 12 months for 2 years. If these exams are normal, you can return for a checkup once a year
4. every 3 to 6 months for 3 years, every 4 to 12 months for the following 2 years, and once a year thereafter



MCR #1

3. The follow up monitoring scheme for a melanoma has spread to regional lymph nodes (stage III) would be

(a = 1,2,3; b = 1,3; c = 2,4; **d = 4 only**; e = all)

1. 3 to 6 months for 3 years, then every 4 to 12 months for the next 2 years
2. 3 to 6 months for 3 years, then every 4 to 12 months for the next 2 years. After that, exams are done at least once a year, generally for at least 10 years
3. exams every 6 or 12 months for 2 years. If these exams are normal, you can return for a checkup once a year
4. **every 3 to 6 months for 3 years, every 4 to 12 months for the following 2 years, and once a year thereafter**



MCR #2

4. The stage of a melanoma is determined by the following.

(a = 1,2,3; b = 1,3; c = 2,4; d = 4 only; e = all)

1. Depth
2. Ulceration
3. Lymph node Involvement
4. Size



MCR #2

4. The stage of a melanoma is determined by the following.

(a = 1,2,3; b = 1,3; c = 2,4; d = 4 only; e = all)

1. Depth
2. Ulceration
3. Lymph node Involvement
4. Size



MCR #3

5. The five-year survival rate for a melanoma Stage IIB is:

(a = 1,2,3; b = 1,3; c = 2,4; d = 4 only; e = all)

1. 45%
2. 89-91%
3. 77-79%
4. 63-67%



MCR #3

5. The five-year survival rate for a melanoma Stage IIB is:

(a = 1,2,3; b = 1,3; c = 2,4; d = 4 only; e = all)

1. 45%
2. 89-91%
3. 77-79%
4. 63-67%