# 乳房攝影測驗

# Mammography

2015年8月30日星期日

1. 除題意不清楚或是圖片有問題，禁止詢問與試題有關的問題。
2. 應答時禁止使用任何文件。
3. 請在電腦答案卡上圈選作答

| 項目 | 填寫內容： |
|---|---|
| 姓名 | 您的中文與英文姓名 |
| 試題名稱 | MAMMO Test |
| 項目 | 不用填寫 |
| 科目 | 不用填寫 |
| 受試者識別代碼 | 您的准考證號碼 **1"000**"**<br>將您選定之數字的圓圈塗滿。 |
| 科目代碼 | 不用填寫 |
| 地點代碼 | 不用填寫 |
| 作答方式 | 本測驗共有90題問題。請使用1到90作答欄位。<br>請將測驗卷Q1的答案填入答案卷的解答番號1。Q2 = 解答番號2，Q3 = 解答番號3…Q90 = 解答番號90。 |

Q1. What is the first using commercial Mammography?
1) Senegraphe      2) Mammomat      3) Mammodiagnost      4) Mammorex

Q2. Which of the following is the correct of the Digital Mammography?
1) Spatial Resolution is high
2) Characteristic Curve of the Image receptor is linear
3) Reducing and deleting of Noise are difficult
4) Dense breast difficult finding of Pathology because it is low SNR signal

Q3. Which of the following is INCORRECT for increasing the resolution?
1) Using the fine focus.
2) Using the long exposure time
3) Increasing the SID (Source Image Distance)
4) Using the low speed screen and film

Q4. Which of the following is the correct combine Anode/Filter for increasing the contrast?
1) Mo/Mo      2) Mo/Rh      3) Rh/Rh      4) Rh/Mo

Q5. Which of the following is NOT correct patient care?
1) Explain of the examination of the kindly and confidently
2) Explain easily and clearly for questions without using medical terminology
3) During the mammography exam, frequently patient body touch a lot
4) Getting information of the patient symptom, to be helpful result of reading

Q6. When the Mammography exam, using the Single emulsion film is the different of the Double emulsion film. What is it?
1) Base                       3) Emulsion layer
2) Halation layer         4) Protective coating or Supercoat

Q7. Which of the following correct description of the SID (Source Image Distance)

| |
|---|
| 1. SID is over 55cm |
| 2. Magnification projection use under 55cm for increasing effect |
| 3. The most using the SID range is 60~70cm |

1) 1 and 2      2) 1 and 3      3) 2 and 3      4) 1 and 2

Q8. Which of the following is able to variable Mammography?
1) C-arm                3) Collimator
2) AEC                  4) Compression Device

Q9. What is the directional cause for public examination of the Screening Mammography?
1) Develop of the Moving grid        3) Develop of the Micro-focal spot
2) Develop of the Foot pedal         4) Develop of the Automatic Exposure Timer

Q10. Which of the following is correct order to develop benign-malignant disease as a calcification distribution?
1) diffuse – regional – grouped – linear – segmental
2) segmental – linear – grouped – regional – diffuse
3) grouped – regional – segmental – linear – diffuse
4) regional – segmental – diffuse – grouped – linear

Q11.  Which of the following is NOT explanation of MTF (modulation transfer function)?
1)  Qualitative expression of image quality in digital image
2)  Falling off in image quality as a diffusion of light cause result of decrease MTF
3)  Difficult of recognizing object because high MTF images are clearly expression of noise
4)  MTF value over efficiency measurement range means high sharpness

Q12.  Which of the following is the most using spot size for Mammography?
1)   0.03mm          2)   0.06mm          3)   0.3mm          4)   0.6mm

Q13.  What is INCORRECT description of this image?
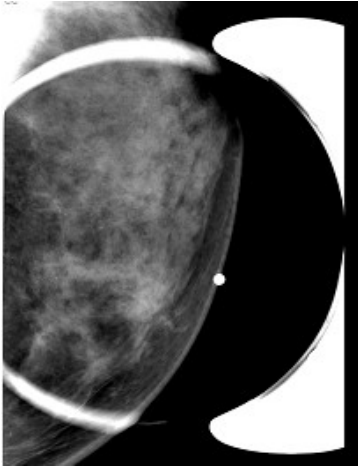


1)  Can take 2 times magnification.
2)  Take with small focus.
3)  Use 5:1 grid.
4)  Can know about number and shape of calcification

Q14.  Which of the following is NOT correct support factor of the Mammography?
1)  Compression device          3)  Automatic Exposure Timer
2)  Rotate C-arm                4)  Non-moving Grid

Q15.  What is the best description of this image?
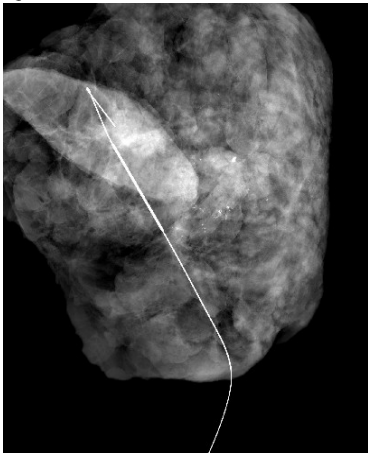


1)  Take an examination after compressing
2)  Specimen Radiography
3)  Take an examination with angle.
4)  Using the Auto exposure exam.

Q16.  Why should be the chest wall located by Cathode of X-ray tube in Mammography?
1)  Anode Heel Effect            3)  Filament Heating Unit
2)  Line Focus Principle          4)  Anode Target Material

Q17. What is the grid ratio in this image?



1) 2:1  2) 5:1  3) 10:1  4) 16:1

Q18. What is the best examination that region located between breast valley?
1) Cleavage Projection
2) Tangential Projection
3) Craniocaudal Projection
4) Spot Compression Projection

Q19. What is the best description of this image?



1) Using the J-wire and Hook-wire.
2) Method for wide excision.
3) Good for approaching by Craniocaudal.
4) It is the examination for palpable regional biopsy.

Q20. Which of the following is NOT purpose for Roll View?
1) apply to show for spread the high dense tissue of part
2) Apply to determined existing unclearly margin abnormal tissue
3) Apply for the case of observe only one projection
4) Apply for palpable region although left and right side images are not searching.

Q21. Which of the following is the TRUE electronic hit target area?
1) Focus   2) Actual Focus   3) Effective Focus   4) Nominal Focus

Q22. Which of the following is correct of the Sono guide gun biopsy?
1) Using for no palpable region
2) Useful for using 3D approaches
3) Check a pathology using the cell aspiration
4) Achieve a lot of cells using the Core needle

Q23. Which of the following is correct of Point Processing?
1) It is the processing that making new pixels using for around pixels in image
2) It is the processing that using changed wave through the body
3) It is the processing that location of image is moving or size changing

4)   When a pixel size change, commonly using the Look Up Table

Q24.  What is the best factor to limit scatter ray?
1)   Target material          2)   kVp                    3)   Compression          4)   Filtration

Q25.  Which of the following is correct description of the Line Focus Principle?
1)   Relationship between Actual focus spot and Effective focus spot
2)   Relationship between Grid ratio and rate of liner per inch
3)   Relationship between changing the SID and film density
4)   Film exposure and result density of film

Q26.  Which of the following is NOT effective Quantum mottle?
1)   Film speed                                3)   Screen effective rate
2)   Film contrast                             4)   Film graininess

Q27.  Which of the following is correct of CCD (Charge Coupled Device)?
1)   Use the Photo-diode
2)   The most recently develop device among of the DR system
3)   Make a Change light from x-ray using a Scintillation material like CsI
4)   Changing effective rate is high using the mirror to light correction

Q28.  This is after mastectomy image. Left edge of the picture shows black line. What is the anatomy
     of this black line?



1)   Retrommammy space
2)   Pectoralis muscle
3)   Retinacula cutis
4)   Breast capsule

Q29.  Which of the following is NOT correct description of Sclerosing duct hyperplasia in the breast
     image?
1)   The lesion is shown the stretch out in mammary duct
2)   The Radiolucent line is shown perpendicularly with speculate
3)   It is often shown the breast calcification with liver cirrhosis
4)   If the mass has Sclerotic thickening, it is not palpable. If the mass has fat necrosis, it is palpable.

Q30.  Which of the following is correct of the epithelial hyperplasia?
1)   It means the calcification of hematoma by trauma
2)   It means hyperplasia of the mammary grand tissue of the skin
3)   means hyperplasia of lactiferous or lobule as a hyperplasia breast disease
4)   It means hyperplasia of the pectoralis major muscle or lobule cell as a hyperplasia breast disease

Q31.  What is the largest vein in the breast?
1)   Axillary Vein                             3)   Intercostal Vein
2)   Internal Mammary Vein                     4)   Azygos Vein

Q32. Which of the following is correct relative hormone and function?
1) Estrogen – is secreted in the anterior pituitary gland during pregnancy. It makes breast growth and galactoria acceleration.
2) Oxytocin – supply for amino acid, fatty acid, grape sugar and calcium to mother's milk
3) Prolactin – develop mammary duct length and proliferate linear organization
4) Progesterone – increase mammary duct and epithelium of the lobule, and the acinar grow acceleration become pregnancy

Q33. What is the Montgomery Gland function?
1) Evacuator function
2) Stimulate function
3) Stabilization function
4) Lubrication function

Q34. Which of the following is including the malignancy?
1) Hamartoma
2) Genecomastia
3) Pajet's Disease
4) Atypical ductal hyperplasia

Q35. When the breast device quarter parts, where is the lowest incidence of breast cancer?
1) Upper Outer Quadrant
2) Upper Inner Quadrant
3) Lower Outer Quadrant
4) Lower Inner Quadrant

Q36. What is the meaning of the AEC (Automatic Exposure Control) minimum response time?
1) The shortest time possible to exposure
2) Protect X-ray tube from overheating
3) Protect patient from over exposure
4) Require time that intensifying phosphors have the Energy

Q37. Which of the following is NOT the main muscle around breast?
1) Deltoid muscle
2) Pectoralis major muscle
3) Pectoralis minor muscle
4) Serratus anterior muscle

Q38. Among the contrast of the Radiolgraphy, which of the following is NOT effect of the film contrast factor?
1) Film fog
2) Developing conditions
3) Tube voltage
4) Screen characteristic

Q39. What is the connection to the Axillay in the breast tissue?
1) Pectoralis Muscle
2) Spence's Tail
3) Coopers Ligament
4) Retinacula Cutis

Q40. Which of the following is correct explanation of the epithelial tissue?
1) Almost breast disease is happened in Epithelial layer.
2) Epithelial tissue is divided columnar shape basement membrane and Myoepithelial cell layer
3) Epithelial layer and basement membrane are less affected by hormone on breast tissue
4) It is located in basement membrane. It is regenerate the column-shaped cells

Q41. Which of the following is NOT correct compression in the Mammography?
1) As reducing thickness of beast and scattering ray, the contrast is increasing.
2) By increasing OID, increase resolution
3) Separate breast tissue and archive uniformity image density
4) Make a flat breast as a result x-ray attenuate equally

Q42. Which of the following is the most concerning physiological factors of metastasis of breast cancer?
1) Feeding
2) Lymph node
3) Blood circulation system
4) Adipose tissue variations

Q43. Where is the usually secretion lymph?
1) Supraclavicular lymph nodes
2) Parasternal lymph nodes
3) Axillary lymph nodes
4) Pulmonary lymph nodes

Q44. Which of the following is correct for the Galactocele?
1) Traumatic breast disease
2) Benign cyst contain of the lactation
3) Calcification of the shell-shaped
4) Mammary cystic hyperplasia contain of the lactation

Q45. What is NOT the histological name of the mammary duct?
1) Myoepithelial cells
2) Epithelial cells
3) Basement membrane
4) Cutaneous lymphathic plexus

Q46. What is the distinguish standard to vessel and mammary duct in breast Ultrasound image.
1) Direction
2) Length
3) Distribution
4) Diameter

Q47. Where is the lowest effective metastasis?
1) Ovary
2) Bone
3) Liver
4) Brain

Q48. Lymph node is divided into three groups. Which of the following is NOT included it?
1) Axillary lymph nodes
2) Transpectoral lymph nodes
3) Deep cervical lymph nodes
4) Internal mammary lymph nodes

Q49. In the Mammography, which one is NOT MUST be indicate factors?
1) Physician
2) Exposure factors
3) Cassette and Screen
4) Left, right marker and projection name

Q50. Which of the following is INCORRECT of the Mammography?
1) Breast combine with parenchyma, fibrotic tissue and fatty tissue
2) Parenchyma and fibrotic tissue is lower density and fatty tissue is high density
3) Observe linear shape of the duct, ligament and vessel in the Fatty breast
4) Breast parenchyma type is decided rate of fibrotic tissue and relative sensitivity of the Mammography

Q51. Which of the following is NOT describe of the DCIS(Ductal Carcinoma In Situ)?
1) Treatment is cure, and prognosis is better
2) DCIS with micro calcification
3) Palpable mass occurred 20~30 years
4) Limit in the only ductal, and often occurred TDLU

Q52. Which of the following is NOT correct for the purpose of the Diagnostic Mammography?
1) When abnormal site find in the screening test
2) After Radiation Therapy exam to mastectomy patient
3) Has a blood discharge symptom of the other breast
4) Request of the micro-calcification from other hospital

Q53. What is NOT correct abbreviation?
1) RCCRL – Roll projection
2) RFB – Caudocranial projection
3) RMCC – Magnification projection
4) RLM – Lateromedical oblique projection

Q54. What is the best describe of the viewing conditions for reading?
1) To reading room makes a darkly help the reading.
2) When the reading room sets up two view boxes, these install with opposite view boxes facing
3) View box is not over 3500nit for protection eyes
4) The lamp of reading room is located behind the reader because he/she is fined easily a foreign body in film surface.

Q55. When the middle of the Tube- Object- film is not correct alignment, what is the result?
1) Blurring      2) Magnification      3) Size distortion      4) Shape distortion

Q56. As using the Air-gap technique compared to grid, how to change exposure parameter and patient dose?
1) Increasing exposure parameter and decreasing patient dose
2) Increasing exposure parameter and increasing patient dose
3) Decreasing exposure parameter and increasing patient dose
4) Decreasing exposure parameter and decreasing patient dose

Q57. Which of the following is NOT correct describe of the MLO projection?
1) 45 degree angle examination is good to skinny and tall women
2) Breast is not slagging due to weak compression
3) IMF(Infra Mammary Fold) is spread Including image
4) As including the pectoralis major muscle of the BCS(Breast Conserving Surgery) patients is difficult

Q58. Which of the following is NOT correct emergency patient care about the Vasovasal syncope reaction?
1) Massage to neck and shoulder to patient
2) Continues movement to keep consciousness
3) Patient head located to between both knees position
4) Supply to oxygen or fanning

Q59. What is the best description about the image?
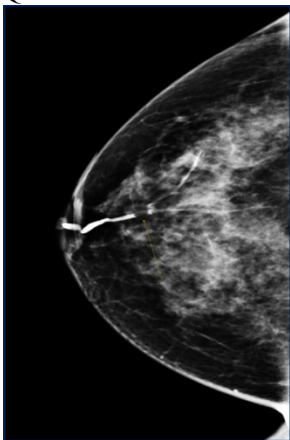


1) To mastitis patient
2) To patient for discharge of the both breast nipples
3) To patient for discharge of viscosity or bleeding
4) After galacto needle insert within the duct, lots of contrast inject rapidly

Q60. Which of the following is correct description of the BI-RADS?
1) Organization of terms and report system
2) Differentiation of the reading of breast image and patient care
3) For communication of reading in a hospital
4) The first generation in 1992 included Mammography, Beast Ultrasound and Breast MRI

Q61. What is the best mammography projection including the maximum breast tissue?
1) Craniocaudal view
2) Mediolateral view
3) Axillary tail view
4) Mediolateral oblique view

Q62. Which of the following is true about Fine Needle Aspiration Cytology?
1) Check outpatient clinic before localization
2) Usually performed palpable mass at the Surgery
3) There are palpation or sono guided biopsy for guide plane
4) Along the find needle path likely to cancer metastasis.

Q63. When use the Tangential projection?
1) Nipple discharge
2) Skin calcification
3) Nipple eczema
4) Palpable mass

Q64. Which of the following is the most suitable lesion for Stereotactic mammotome biopsy?
1) Papiloma
2) Fibroadenoma
3) Micro calcification
4) Malignancy lymphoma

Q65. Which of the following is NOT correct about the BSE (Breast Self Exam)?
1) After finishing menstruation every month
2) Compare to change of the nipples shape
3) Using $2^{nd}$, $3^{rd}$ and $4^{th}$ fingers touchable in clockwise
4) Every month check after ovarietectomy or becoming menopause naturally

Q66. What is the most population breast cancer about 80% of entire breast cancer?
1) Ductal carcinoma in situ
2) Invasive ductal carcinoma
3) Invasive lobular carcinoma
4) Mucinous carcinoma

Q67. What is the best description in this image?
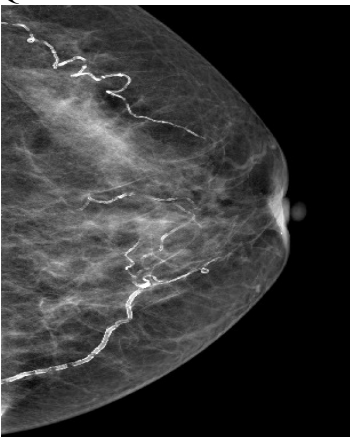


1) A follow-up every six month
2) 1.8 times magnification take the examination
3) A calcification vessels
4) Linear calcification

Q68. What is the best answer the indirectly sign?
1) Skin thickening
2) Nipple retraction
3) Dilatation duct
4) Architecture

Q69. What is the CORRECT about limit of Mammography?
1) Dense breast
2) Small breast
3) Cheast wall on the region
4) Region is around of nipple

Q70. What is "Probably benign – short interval follow-up suggested" in the overall impression of BI-RADSTM?
1) category 1
2) category 2
3) category 3
4) category 4

Q71. Which of the following is NOT correct regarding indications of breast MRI?
1) Classification of Cyst and solid mass
2) Evaluation of plastic surgery and reconstruction
3) Evaluation of therapeutic effectiveness before and after chemotherapy for breast cancer
4) Evaluation of unknown lymphatic metastasis

Q72. What is the meaning of change continuous density value to a positive number?
1) Sampling
2) Quantization
3) Image compression
4) Image reconstruction

Q73. Which one of the following is NOT correct of the standard image evaluation in the CC view?
1) Include an internal breast tissue
2) Observe nipple contour on lateral view in middle of breast
3) Include a retromammary fat
4) Length of posterior line of nipple is over 1cm than internal-external of the breast

Q74. What is the best description about the compression?
1) The compression force is within 24~45pounds
2) Thickness of the compression pad is over 3mm is safety and stability
3) As using a foot pedal possible more compress
4) Edge of the compression paddle is round shape due to reduce patient pain

Q75. What is INCORRECT to projection check list about the image evaluation of the standard Mammography?
1) Slagging
2) IMF fold
3) Nipple
4) Projection angle

Q76. Which one of the following is NOT correct description of the mass analyses Algorism?
1) Focal asymmetry show lesion only single directional image
2) Added external examination when focal asymmetry has a disease
3) Focal asymmetry disease is not clearly margin
4) If the conscious mass lesion is in Mammography, should be distinguish mass or focal asymmetry

Q77. Which one of the following is CORRECT description of  follow-up after surgery of advanced breast cancer?
1) Medical examination is checking every 3~6 months during first 5 years.
2) Other examinations before surgery have every 1 year for 5 years.
3) Ultrasonography is check every 6 months and first 10 years after surgery.
4) Mammography is check every 3~6 months for first 5 years after surgery.

Q78. Who is the lowest breast cancer probability?
1) Sister has breast cancer
2) Takes pill birth control
3) Sister has thyroid cancer
4) The faster of the first menstruation and the late of the menopause

Q79. Which of the following is NOT correct description of the Tomosynthesis?
1) Reducing exposure due to decrease repeat rate
2) Boundary of the mass find distinctly and ill-defined
3) Achieve one 3D mammography image which gets many planes with various angle
4) Increase overlapping image than common mammography

Q80. Which of the following is NOT correct description of the Implant displacement view?
1) Using push-back method projection
2) Consideration of movement of the implant for mammography
3) Compression intensity is endurance
4) Only using Auto exposure control is reducing exposure

Q81. Which of the following is INCORRECT description of the CAD (Computed Aided Detection)?
1) Reducing recall rate
2) Saving time, labor and cost
3) Available using double reading
4) Possible think of second opinion

Q82. Which of the following is NOT preventing situation of the BSC (Breast conserving surgery)?
1) Diffuse calcification patient is probably malignancy
2) the positive results of biopsy test the boundaries margin
3) Received radiation therapy patient to the breast or chest wall
4) in spite of the quarter area, has more than two calcifications or greater mass

Q83. What is not included treatment after surgery of the breast cancer?
1) Chemotherapy
2) Hormone therapy
3) Bone marrow transplantation
4) Leukocyte growth factor therapy

Q84. Which of the following correct description of the breast cancer?
1) Prognosis of mucinous carcinoma is better
2) ILC(Invasive Lobular Carcinoma) is amount of 5% entire breast cancer
3) When the ductal basement membrane is not through DCIS (Ductal Carcinoma in Situ) or IDC (Infiltrated Ductal Carcinoma)
4) LCIS (Lobular Carcinoma in Situ) is rare detection of calcification and palpable mass

Q85. Which of the following is NOT correct explanation about breast Ultrasonography?
1) It has advantages to distinguish micro calcification.
2) It distinguishes malignancy tumor by echo
3) It can evaluate the insertion of breast implant.
4) It distinguishes malignancy for tumor shape

Q86. Which is the following is CORRECT description of calcification in this image?
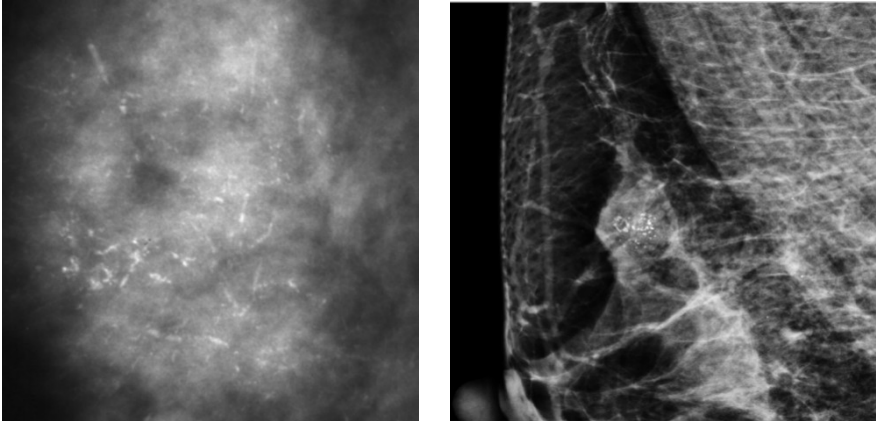


1) Lobular calcification show one spot distribute of the breast
2) Calcification should be have mass or single region
3) Casting calcification looks like powder
4) Size of calcification, uniformity of density and scatter of the calcification are malignancy

Q87. Which of the following is the correct explanation about TNM system?
1) Nx: no local lymphatic gland metastasis
2) Mo: remote metastasis including upper clavicle of body side lymphatic gland
3) T2: maximum length of breast is over 2cm and less 5 cm
4) T4: DCIS, LCIS

Q88. Which of the following is CORRECT explanation of the Digital Mammography?
1) High spatial resolution
2) The Characteristic curve of image receptor is linear
3) Noise of the image receptor is difficult or deleted
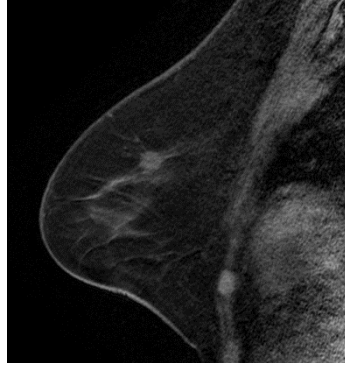4) Finding legion is difficult to lower SNR in the dense breast

Q89. Which of the following is CORRECT description of    hormone therapy for breast cancer?
1) The incidence of cervix cancer can be decrease.
2) The effect is good when the hormone receptor is positive.
3) The therapy makes activity female sex hormone.
4) If tamoxifen takes long time, bone density would be increase.
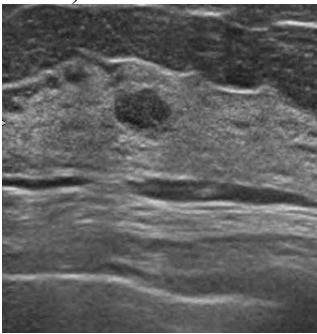
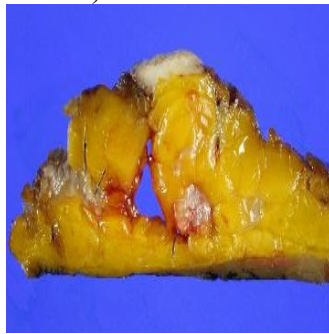Q90. Which of following is different to others in this image?



1)



2)



3)



4)