Cephalometic Landmark From Winceph software

By Dr.Pichai Asvinjaipetch D.D.S.

May I introduce myself

Dr.Pichai Asvinjaipetch
D.D.S.

MY EDUCATION

FACULTY OF DENTISTRY MAHIDOL UNIVERSITY IN 1975 - 1981

MY EDUCATION

In 1995

This certificate has been awarded to

DR. PICHAI ASVINJAIPETCH

for satisfactory completion of a continuing education orthodontic course on

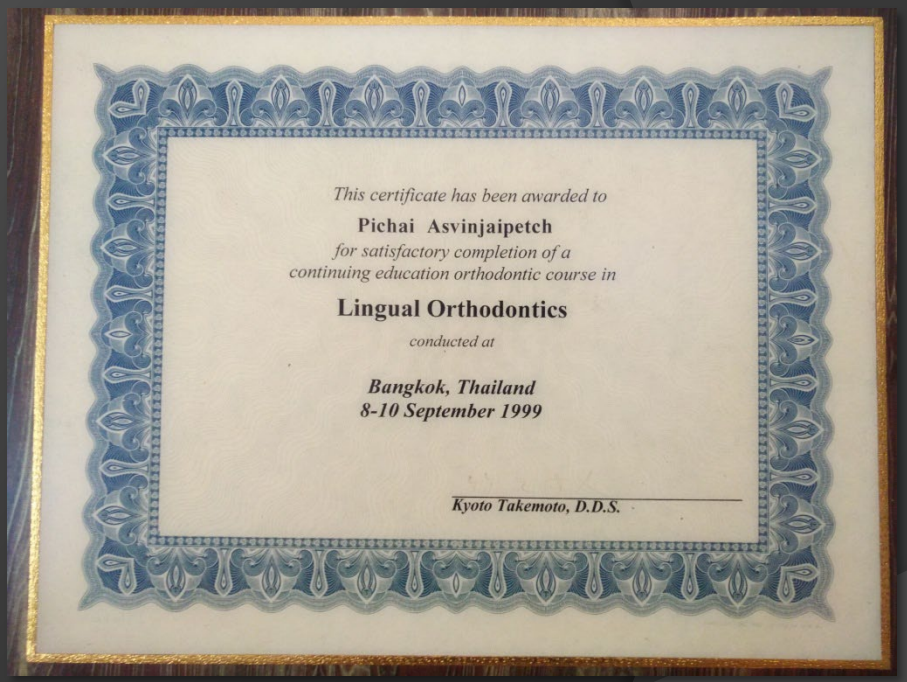
Orthodontic Mechanotherapy

conducted at

Bangkok, Thailand on April 7 & 8, 1995

Dr. Michael W. Scott, D.D.S., M.S.D.

In 1999



This certificate has been awarded to

Pichai Asvinjaipetch

for satisfactory completion of a continuing education orthodontic course in

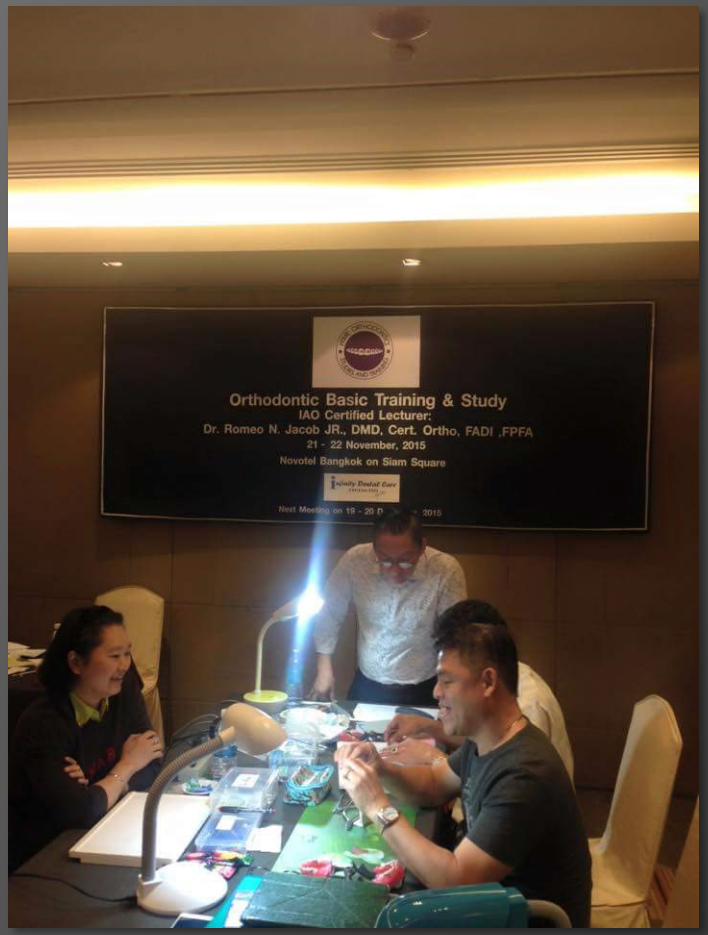
Lingual Orthodontics

conducted at

Bangkok, Thailand
8-10 September 1999

Kyoto Takemoto, D.D.S.

MY EDUCATION



Orthodontic Basic training & Study in 2015

MY EDUCATION

MY OFFICE


ใจเพชรทันตแพทย์
ทันตกรรมสำหรับครอบครัว
โทร. 02-982-9287
เชิญตรวจฟันฟรี
เพื่อสุขภาพปากและฟันที่ดีของคุณ
วันนี้ - 30 พฤศจิกายน 2553
Colgate

MY OFFICE

MY OFFICE

MY COLLEAGUES

MY PRACTICE

In 1995. Study and Practise in Edgewise Dr.Alexander Wick 's Biomechanic

MY PRACTICE

In 1999. Study and Practice
in
Lingual Technic

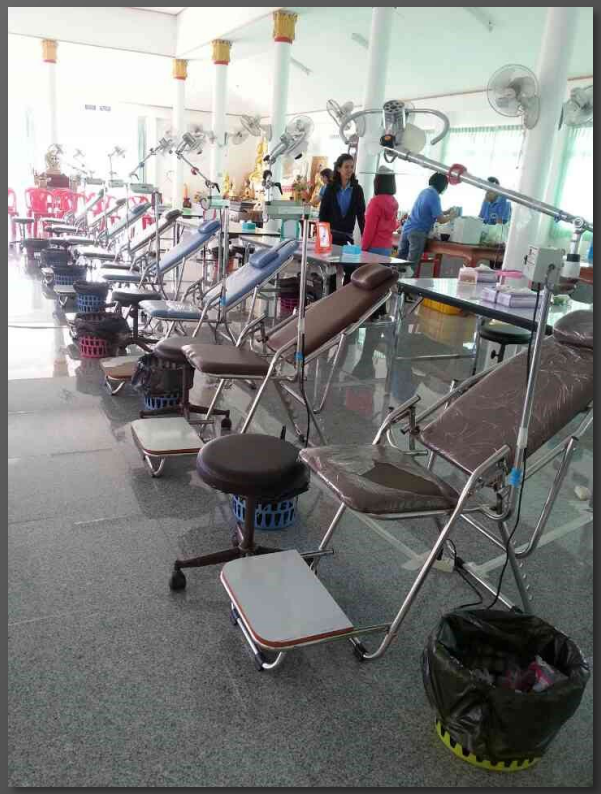
MY PRACTICE

In 1999. Study and Practice
in
Invisalign

MY ROLE IN THE SOCIETY

MY ROLE IN THE SOCIETY

MY ROLE IN THE SOCIETY



MY ROLE IN THE SOCIETY

MY ROLE IN THE SOCIETY

MY ROLE IN THE SOCIETY

MY ROLE IN THE SOCIETY

Radiographic Analysis

- Cephalometric Analysis
- Growth Analysis
- Basal Bone Analysis
- Hand-Wrist Analysis
- OPG Evaluation
- TMJ Radiographs(TMJ related case)

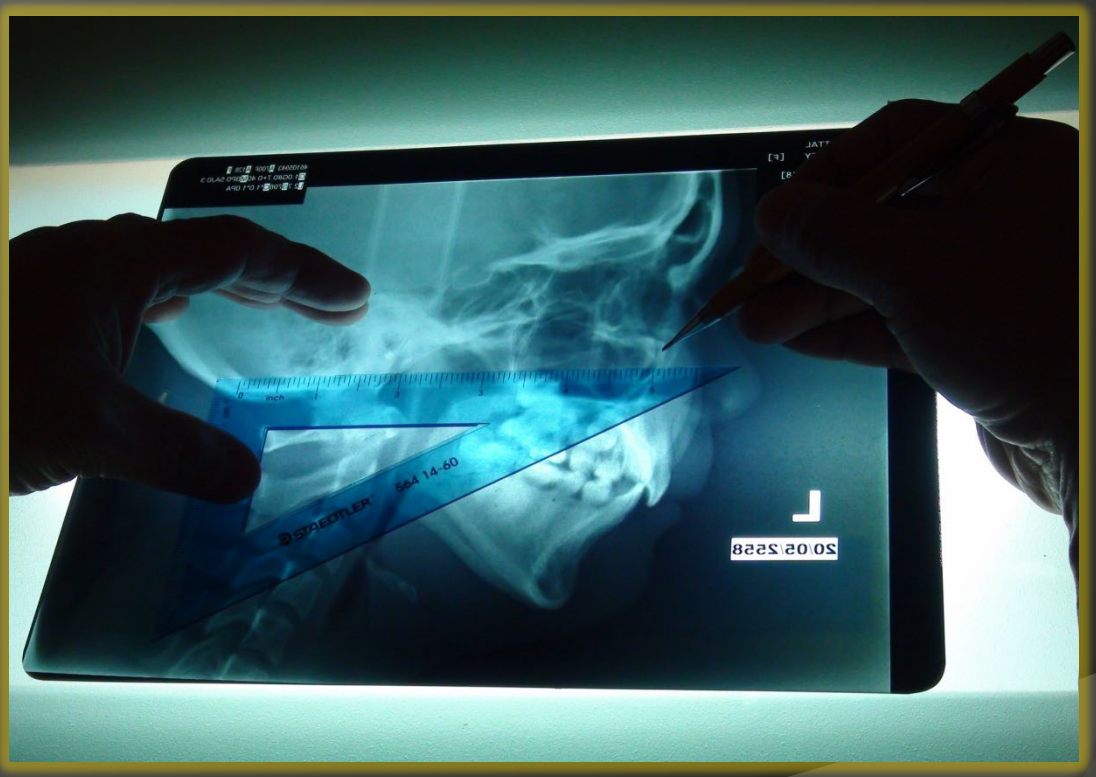
Photo Analysis

- Lip profile and soft tissue Analysis
- Esthetic line Analysis
- Schwarz profile Analysis
- Visualized Treatment Objective
- Facial symmetry and others

Model Analysis

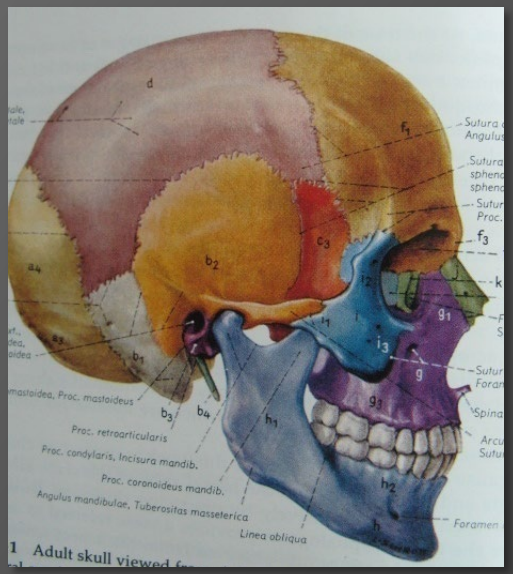
- Classification of malocclusion
- Segmental space analysis
- Bolton analysis
- Korkhaus analysis
- LICD analysis
- Others (MDA, Curve of spee, Tonn Index, Arch symmetry and etc.)

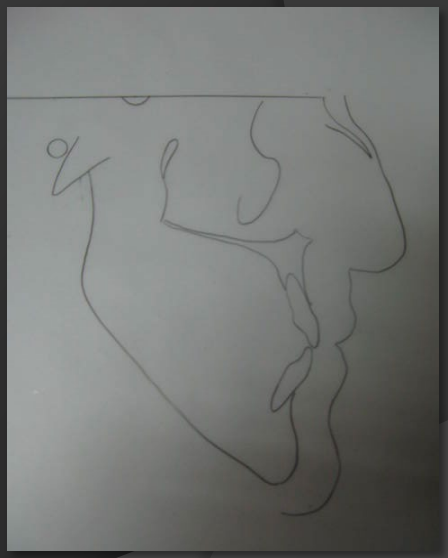
Radiographic Analysis



CLINICAL CEPHALOMETRY

By
Romeo N. Jacob Jr., DMD, FADI, FPFA





Bergen-Technique Cephalometric Analysis

The most important diagnostic tools in case analysis, evaluation and treatment planning

1. Evaluate the facial type
2. Plan the treatment
3. Predict facial growth
4. Assess craniofacial deformities
5. Research in growth and developement

- In 1948 the Downs Analysis was introduced
- In 1953 the Steiner Analysis was developed
- In 1954 came the Tweed Analysis
- In 1955 the Coben Analysis was born
- In 1960 the Ricketts Analysis was first published
- In 1967 the Wits analysis was introduced

Professor Hasund in Norway developed the Bergen-Technique of clinical cephalometry. Simplifie further as follows:

I. Definition and code of reference points: Anatomical, Soft tissue, Constructed
II. Tracing material and procedure
III. Method of measurement: Line & Angle
IV. Respective individual angle/liner reading:
Linear connection, Line & Angle measurement, Interpretation

THREE CEPHALOMETRIC CONVENTIONS

1. LATERAL CEPHALOGRAM for conventional orthodontics
2. LATERAL OBLIQUE CEPHALOGRAM for oral and maxillofacial surgery
3. ANTERO-POSTERIOR/POSTERO-ANTERIOR CEPHALOGRAM for cleft lip and palate patients

THREE CEPHALOMETRIC CONVENTIONS

LATERAL

LATERAL OBLIQUE

A-P/ PA

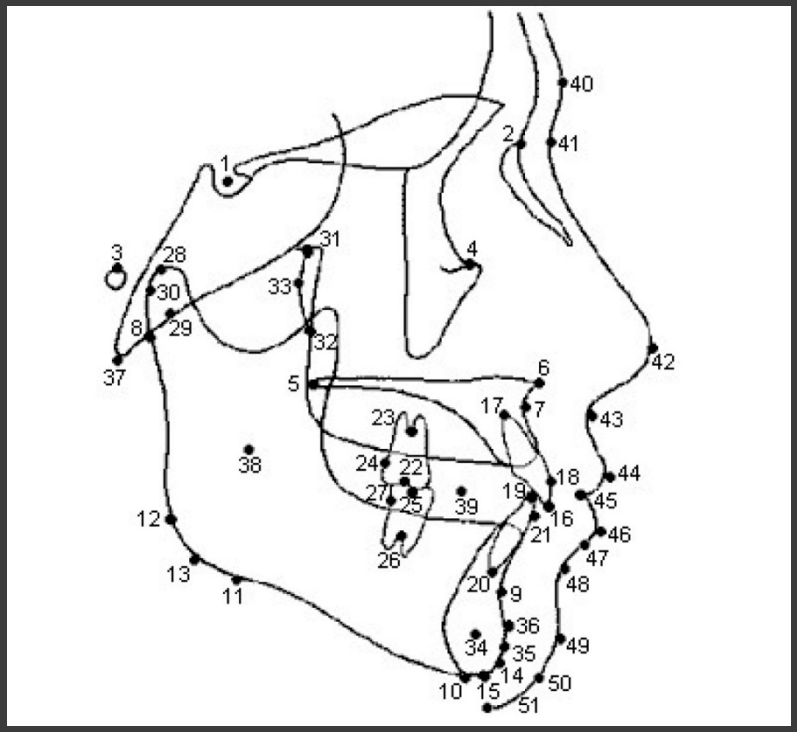
CEPHALOMETRIC RADOGRAPHY

PURPOSE OF CEPHALOMETRIC RADIOGRAPHY

1. To evaluate the facial type
2. Plan the treatment
3. Predict facial growth
4. Assess craniofacial anomalies
5. Research in growth and development

Analysis Points in WIN CEPH

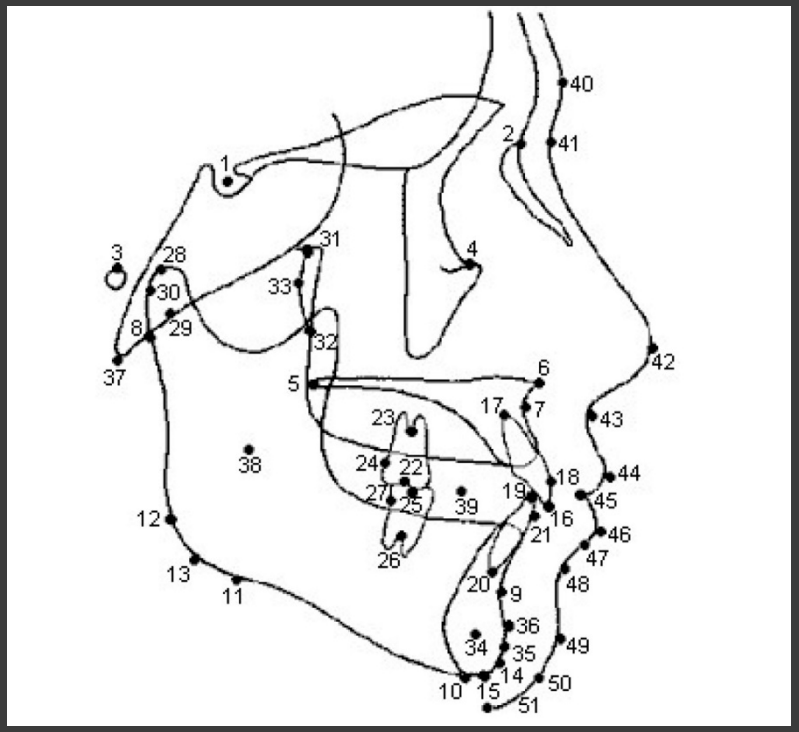
Lateral Point



1. S …….. Sella turcica
2. N …….. Nasion
3. Po ……. Porion
4. Or ……. Orbitale
5. PNS …… Posterior Nasal Spine
6. ANS …… Anterior Nasal Spine
7. A …….. point A
8. Ar ……. Articulare
9. B …….. point B
10. Me ……. Menton
11. Go(L) …. Lower Gonion
12. Go(P) …. Posterior Gonion
13. Go ……. Gonion (Iizuka)
14. Pog …… Pogonion (Iizuka)
15. Gn ……. Gnathion (Iizuka)
16. U1 ……. Upper1
17. U1R ……. Upper1 root

Analysis Points in WIN CEPH

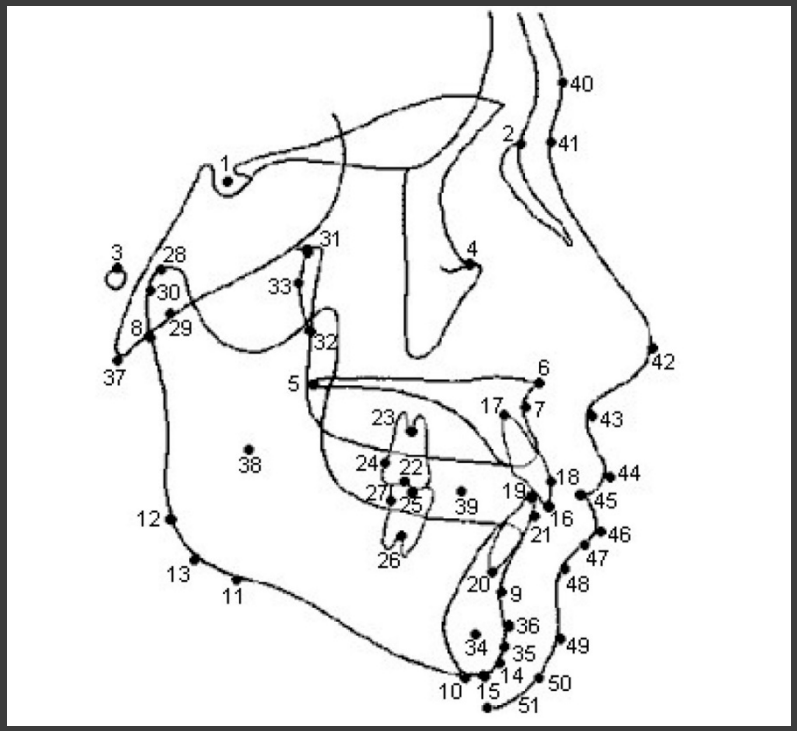
Lateral Point



18. U1C ..... Upper1 crown
19. L1 ..... Lower1
20. L1R ..... Lower1 root
21. L1C ..... Lower1 crown
22. UMo ..... Upper Molar
23. UMoR ..... Upper Molar Roots
24. UMo(D) ... Distal Upper Molar
25. LMo ..... Lower Molar
26. LMoR ..... Lower Molar Roots
27. LMo(D) ... Distal Lower Molar
28. Cd ..... Condyle
29. DC ..... Condyle Center (Ricketts)
30. CdE ..... Condyle end (on SN plane level)
31. PT ..... Pterygoid point
32. Ptm ..... Pterygomaxillary fissure
33. PTV..... The point on a PTV line

Analysis Points in WIN CEPH

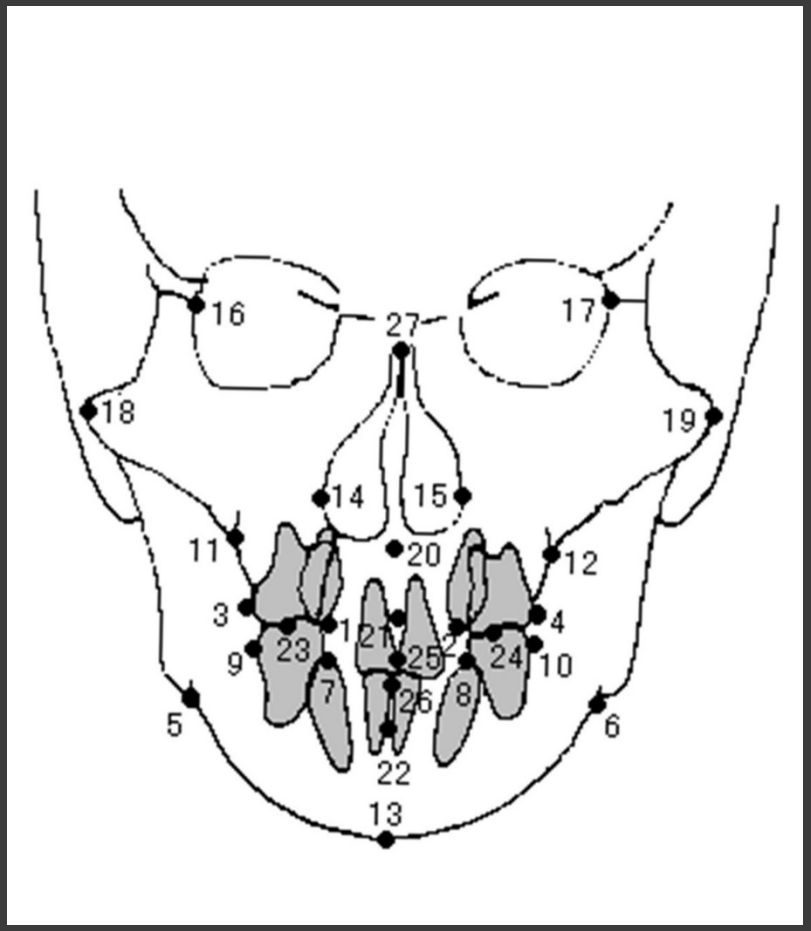
Lateral Point



35. Pog(R) .. Pogonion (Ricketts)
36. PM ..... PM (Protuberance menti) (Ricketts)
37. Ba ..... Basion
38. Xi ..... Xi (Ricketts)
39. PMo ..... Premolar for functional occl. pl.
40. Gl ..... Glabella
41. N(s) ..... Na (Nasion) (on FH plane level)
42. TN ..... Top of Nose
43. SN ..... SubNasal
44. TUL ..... Top of Upper Lip
45. Sto ..... Stomion
46. TLL ..... Top of Lower Lip
47. Vmi ..... Vermilion
48. SB ..... Supra Mentale
49. TC ..... Top of Chin
50. Pog(s) ... Pogonion(soft)
51. Me(s) .... Menton(soft)

Analysis Points in WIN CEPH

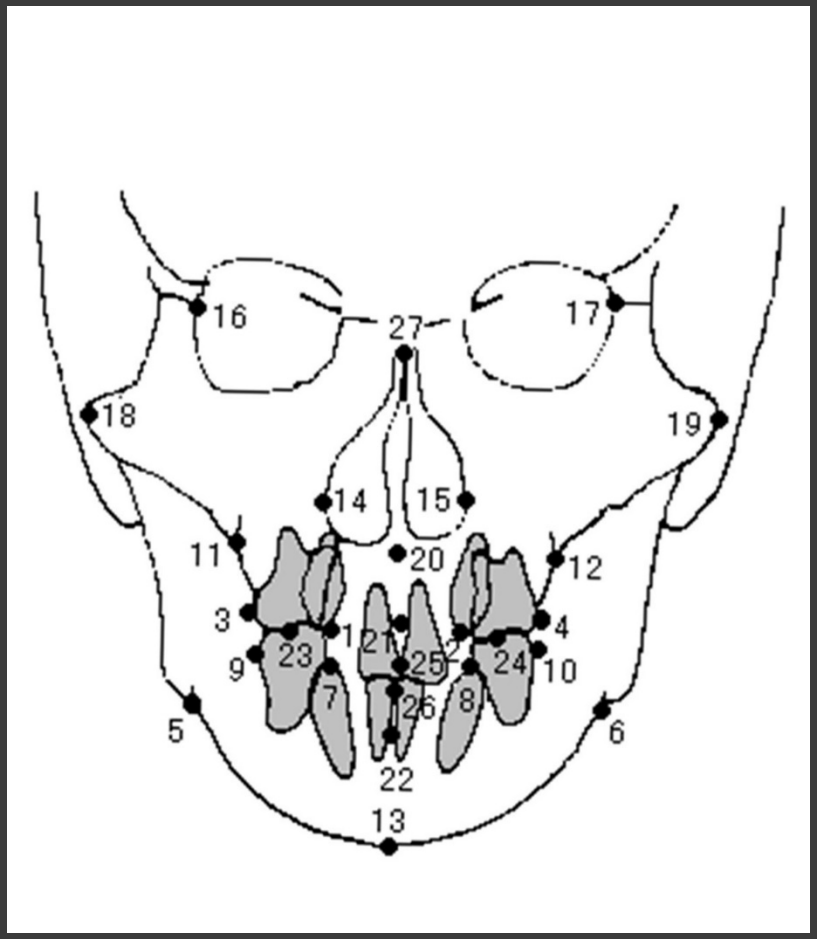
PA Point



1. U3R... Top of upper canine(R)
2. U3L... Top of upper canine(L)
3. U6R... Buccal point of upper 1st molar(R)
4. U6L... Buccal point of upper 1st molar(L)
5. AGR... Lateral interior point of antigonial protuberance(R)
6. AGL... Lateral interior point of antigonial protuberance(L)
7. L3R... Top of lower canine(R)
8. L3L... Top of lower canine(L)
9. L6R... Buccal point of lower 1st molar(R)

Analysis Points in WIN CEPH

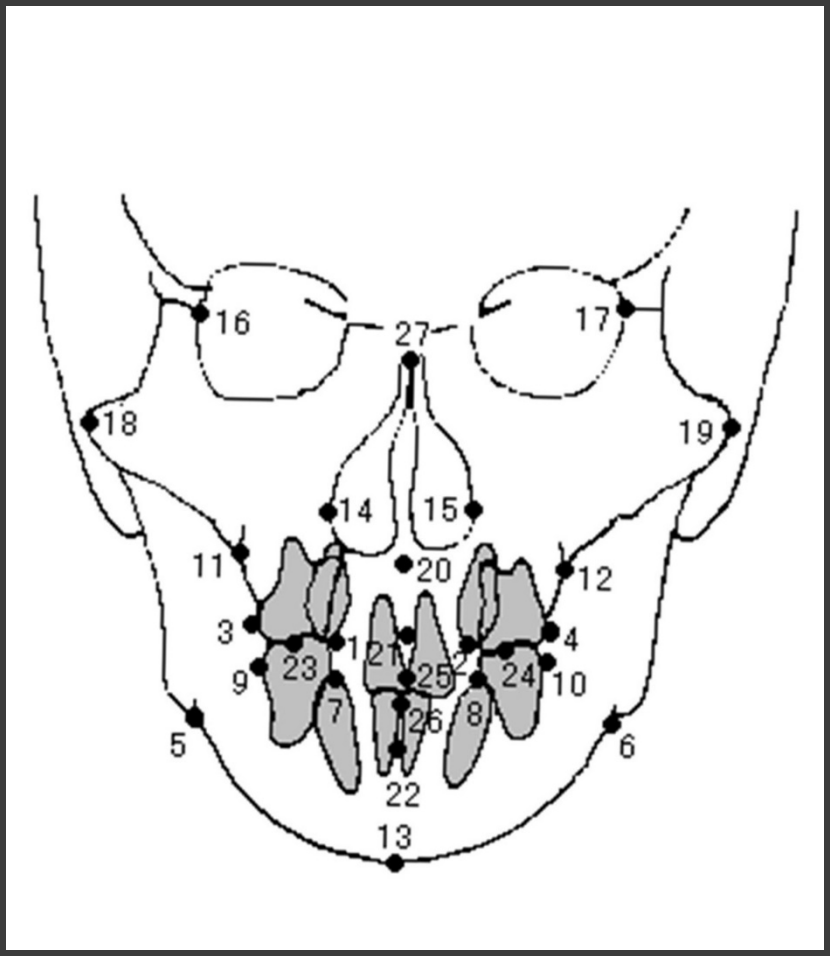
PA Point



10. L6L... Buccal point of lower 1st molar(L)
11. JR... Jugal process(R)
12. JL... Jugal process(L)
13. Me... Menton
14. NCR... Lateral point of nasal cavity(R)
15. NCL... Lateral point of nasal cavity(L)
16. ZR... Mesial point of zygomatic frontal suture(R)
17. ZL... Mesial point of zygomatic frontal suture(L)
18. ZAR... Lateral point of zygomatic process(R)

Analysis Points in WIN CEPH

PA Point



19. ZAL... Lateral point of zygomatic process(L)
20. ANS... Anterior nasal spine(R)
21. A... point A
22. B... point B
23. 6R... Mid point of 1st molars(R)
24. 6L... Mid point of 1st molars(L)
25. UMid... Upper midline
26. LMid... Lower midline
27. GC... Crista galli

CEPHALOMETRIC REFERENCES

THREE(3) TYPES OF REFERENCE POINTS FOUND IN A CEPHALOMETRIC RADIOGRAPH

1. ANATOMIC REFERENCE POINTS
2. CONSTRUCTED REFERENCE POINTS/LINES
3. SOFT TISSUE REFERENCE POINTS

ANATOMIC REFERENCE POINTS

1. NASION
2. BASION
3. ANTERIOR NASAL SPINE
4. PROSTHION
5. POINT A (Subspinale)
6. INCISION SUPERIUS
7. INCISION SUPERIUS APEX
8. INCISION INFERIUS
9. INCISION INFERIUS APEX

ANATOMIC REFERENCE POINTS

10. INFRADENTALE
11. POINT B (Supramentale)
12. PTERYGOMAXILLARY FISSURE
13. ARTICULARE
14. CONDYLION
15. ORBITALE
16. PORION
17. GONION

ANATOMIC REFERENCE POINTS

THE THREE(3) PROMINENCES OF THE BONY CHIN

18. POGONION(Pg) most anterior
19. GNATHION(Gn) most inferior
20. MENTON(Me) most posterior

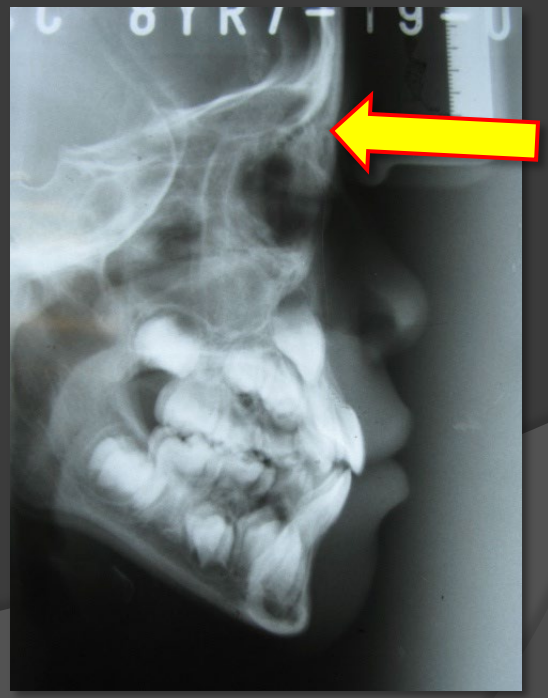
CONSTRUCTED REFERENCE POINTS / LINES

1. SELLA
2. SPINA PRIME
3. GONION TANGENT POINT

ANATOMIC REFERENCE POINTS

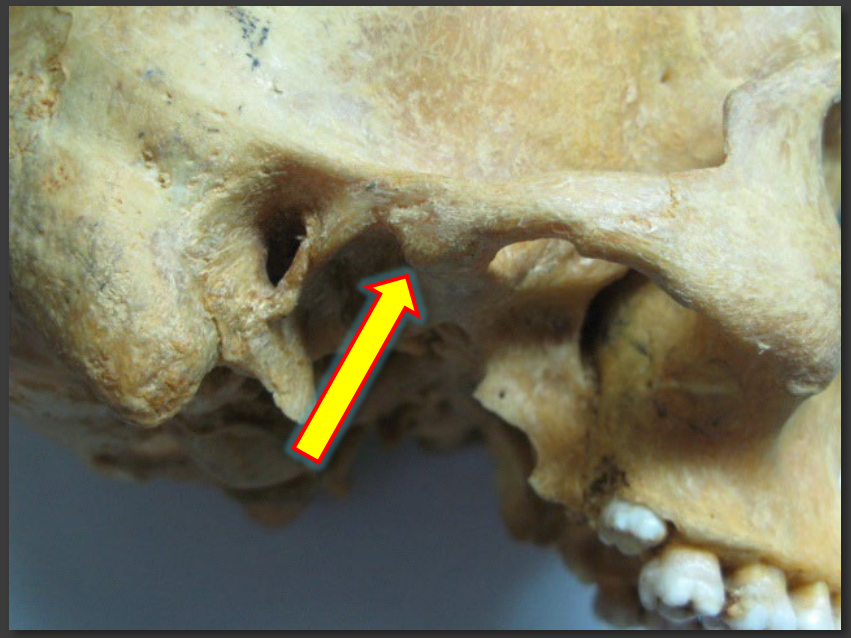
1. **NASION (Na, N)**

the most anterior lying point on the frontonasal suture. It appears as a thin or fine on the radiograph.



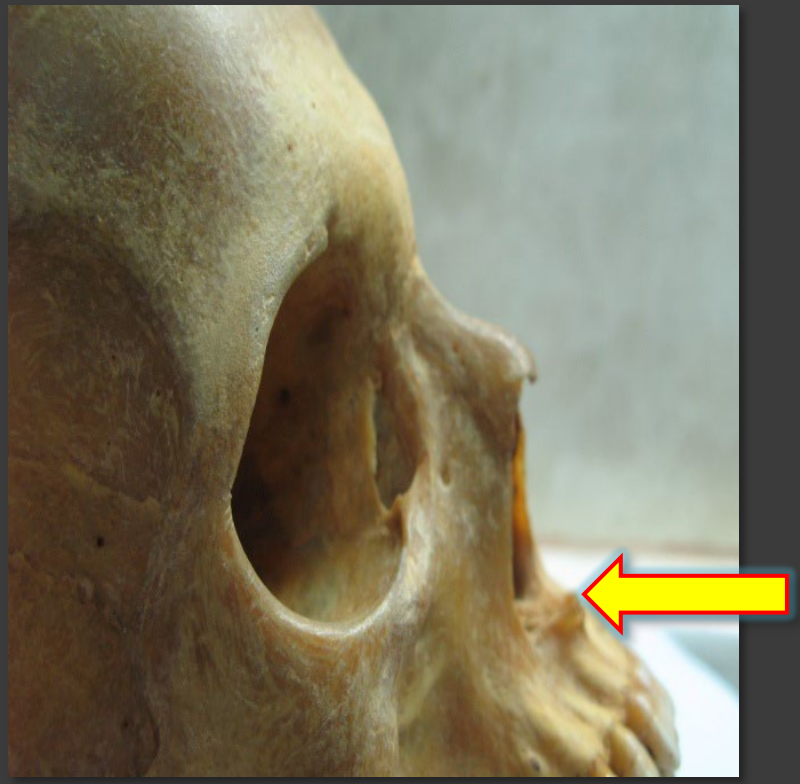
2. BASION (Ba)

the most posterior and inferior lying point on the clivus in the midsagittal plane



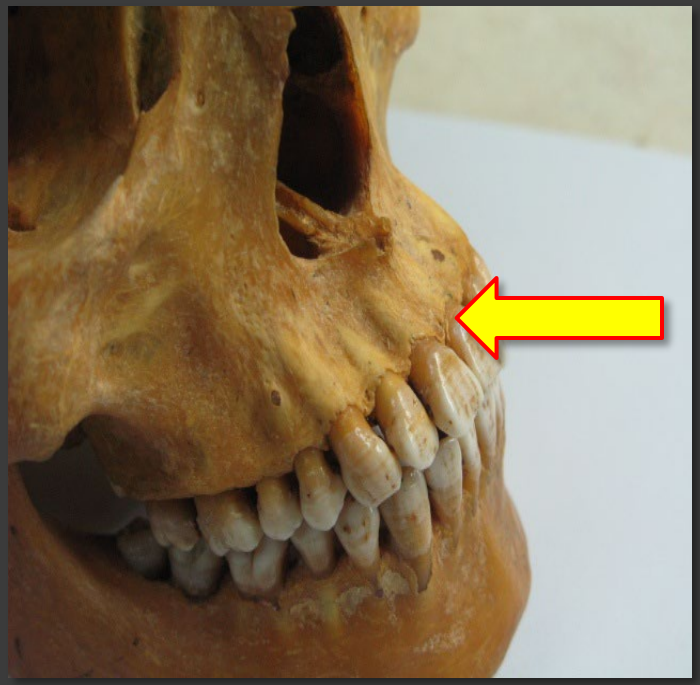
3. ANTERIOR NASAL SPINE(ANS)

the most anterior lying point on the anterior nasal spine



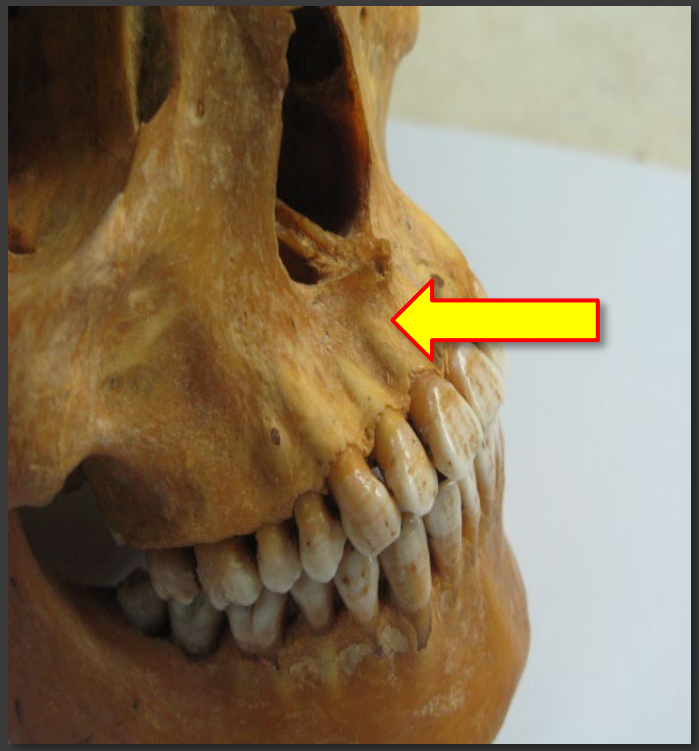
4. PROSTHION(Pr)

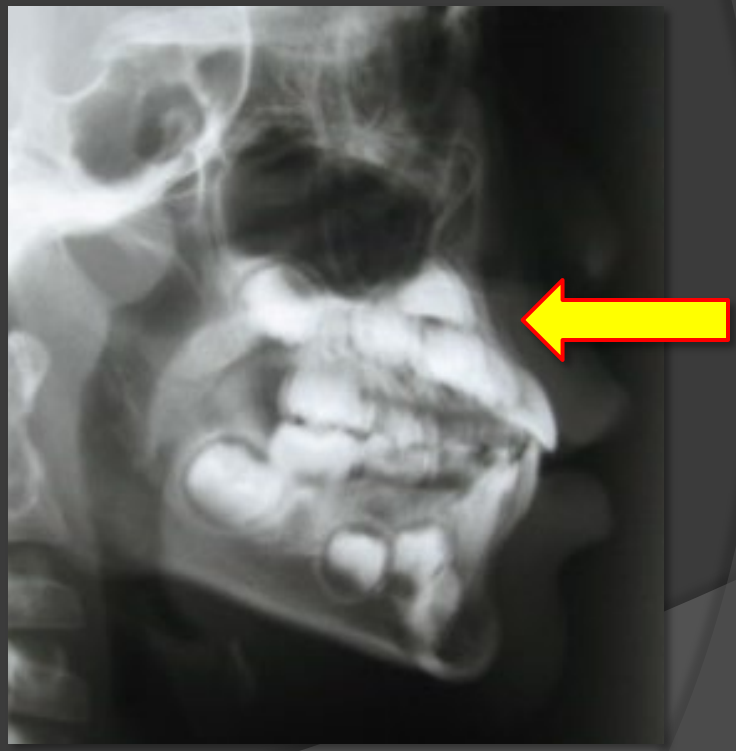
the most anterior point of the maxillary labial alveolar process



5. SUBSPINALE(Point A)

the deepest point on the anterior contour (Sp-Pr) of the maxillary alveolar process.



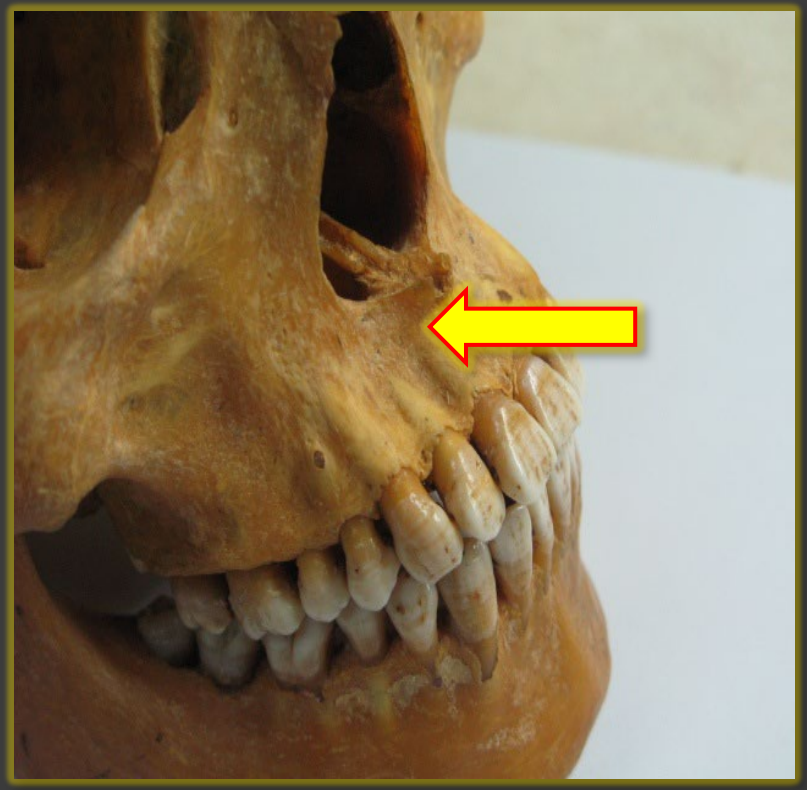


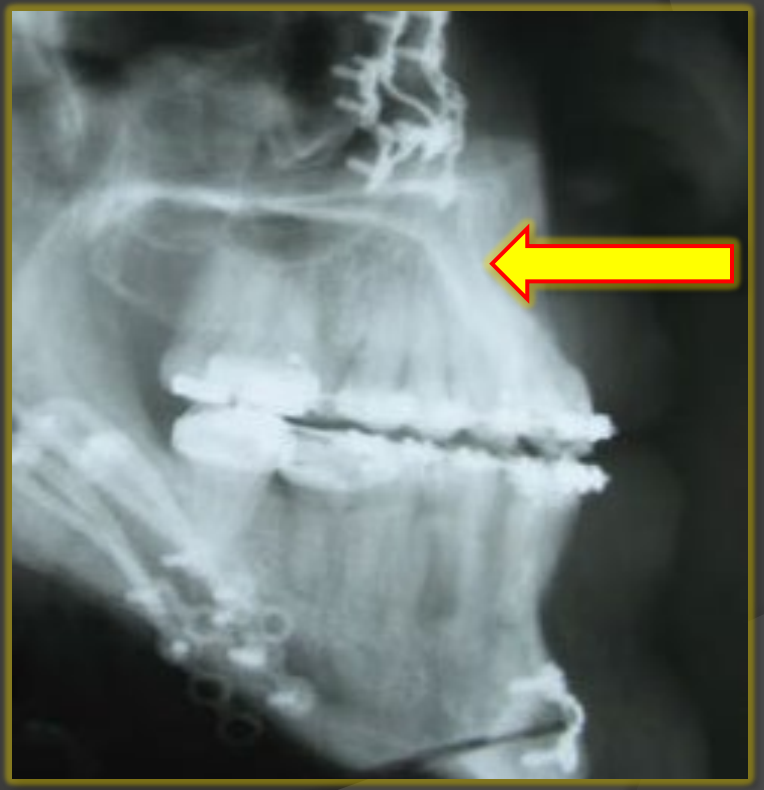
6. INCISION SUPERIUS(Is)

the midpoint of the incisal edge of the maxillary central incisors.

7. INCISION SUPERIUS APEX(Isa)

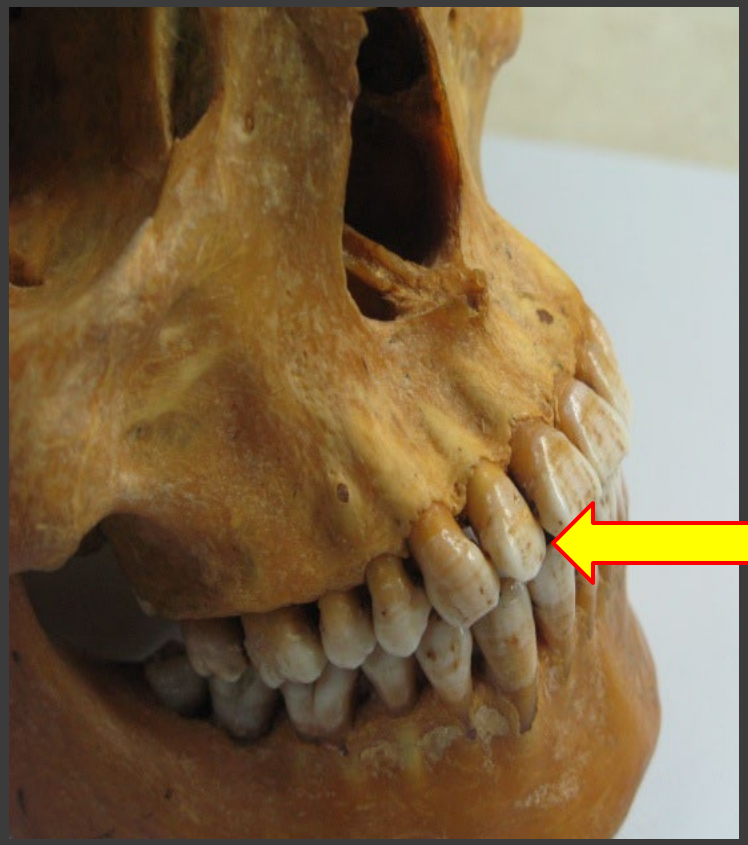
the apical point of the maxillary central incisors.





8. INCISION INFERIUS(Ii)

the midpoint of the incisal edge of the mandibular central incisors.

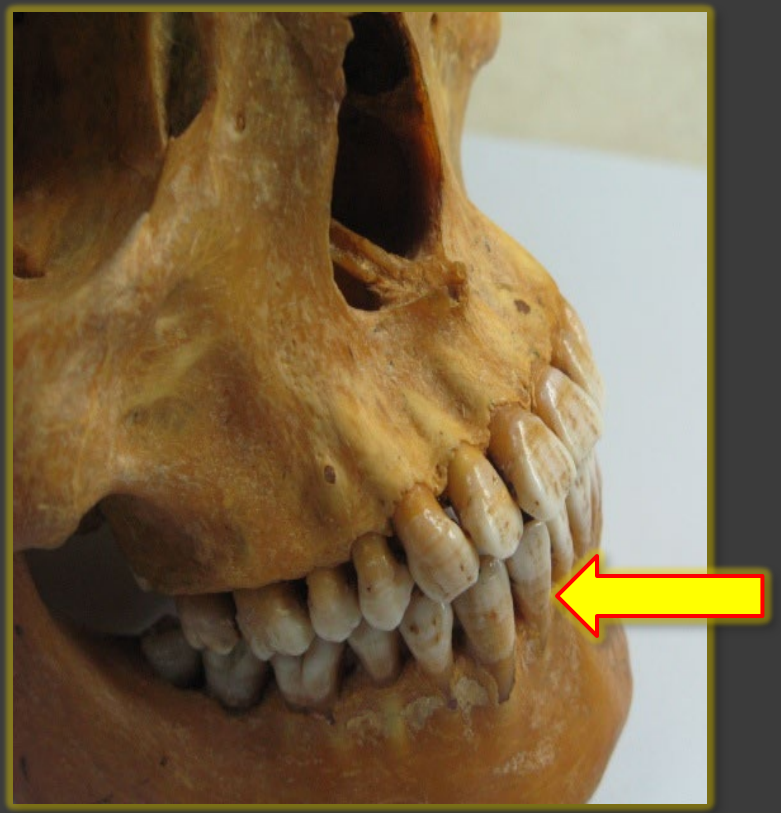


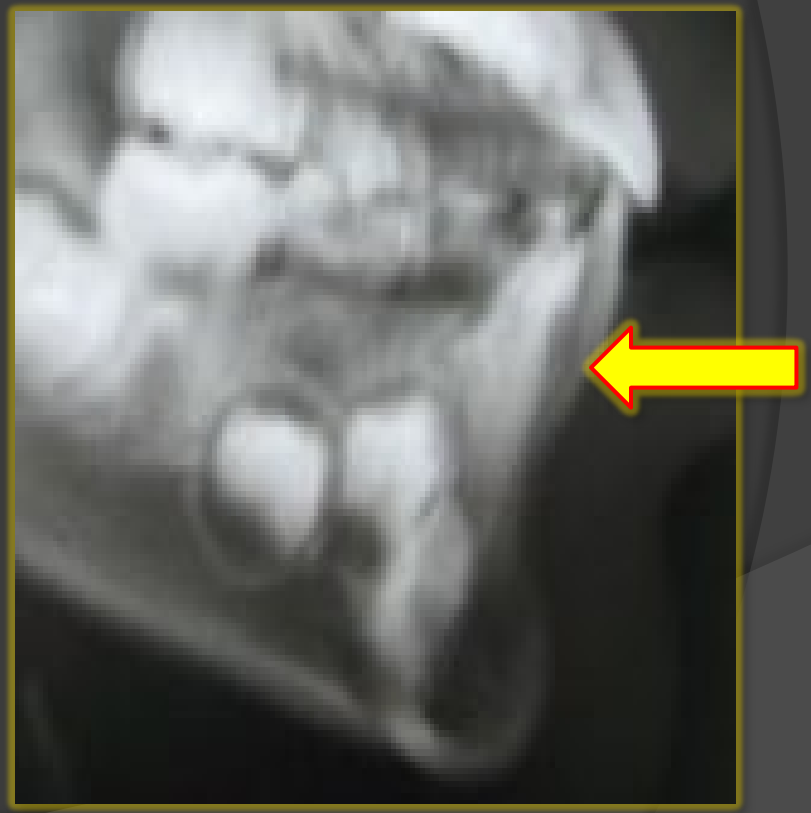
9. INCISION INFERIUS APEX(Iia)

the apical point of the mandibular central incisors

10. INFRADENTALE(Id)

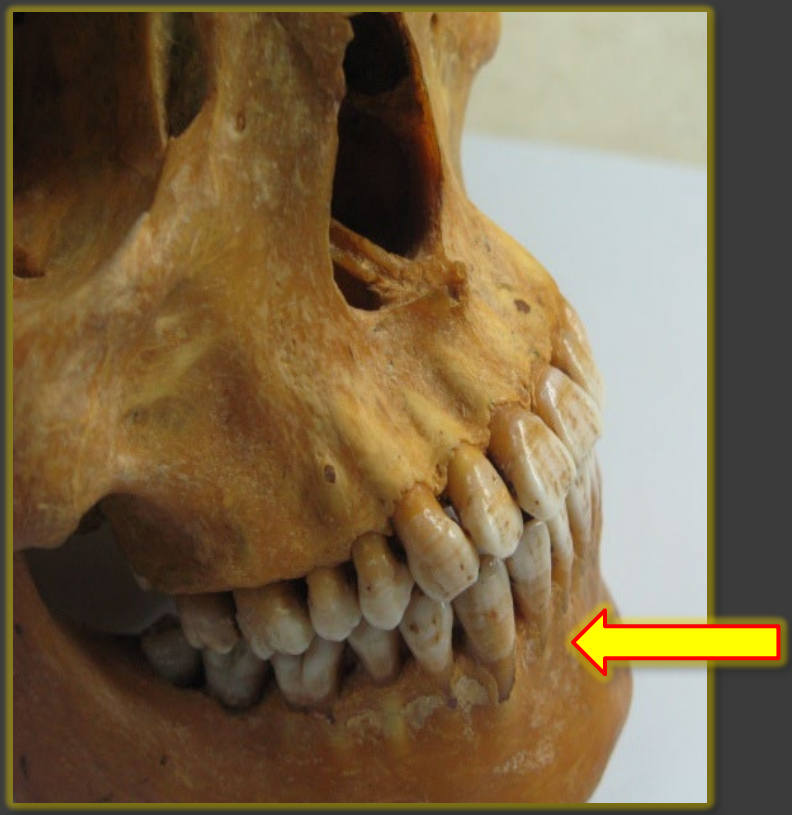
the highest and the most anterior point of the mandibular labial alveolar process





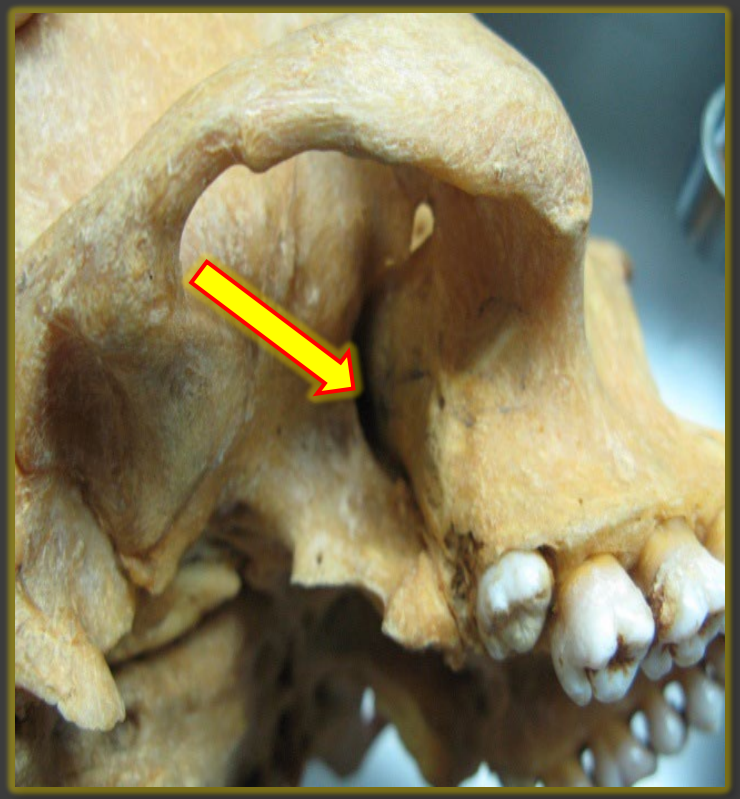
11. SUPRAMENTALE (Point B)

the deepest point on the anterior contour of the mandibular alveolar process in the mid-sagittal plane.



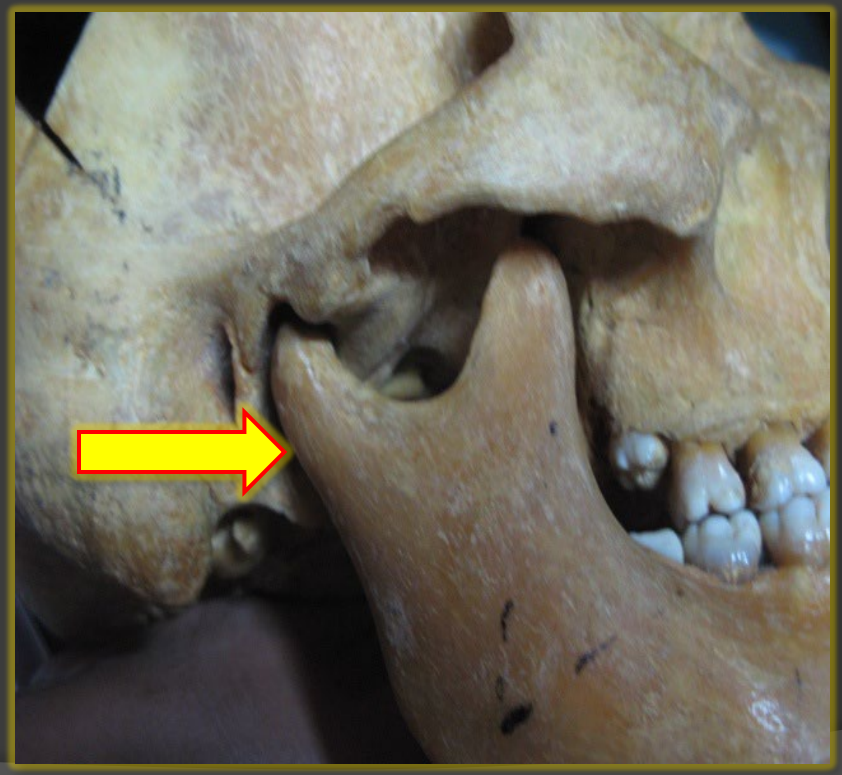
12. PTERYGO-MAXILLARY FISSURE(Ptm)

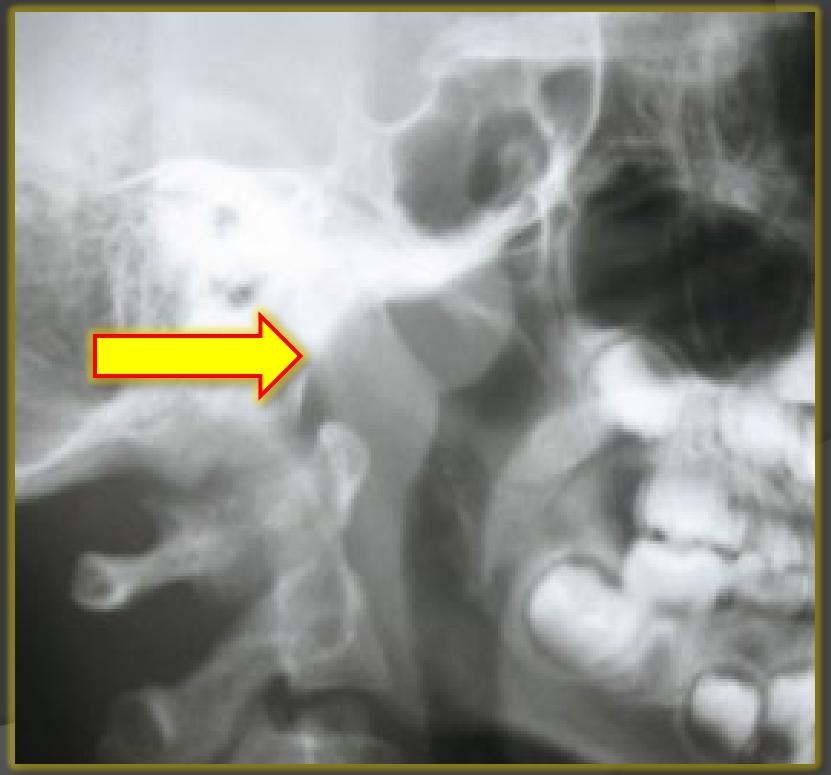
the intersection of the posterior contour of the maxilla with the contour of the hard and soft palate.



13. ARTICULARE(Ar)

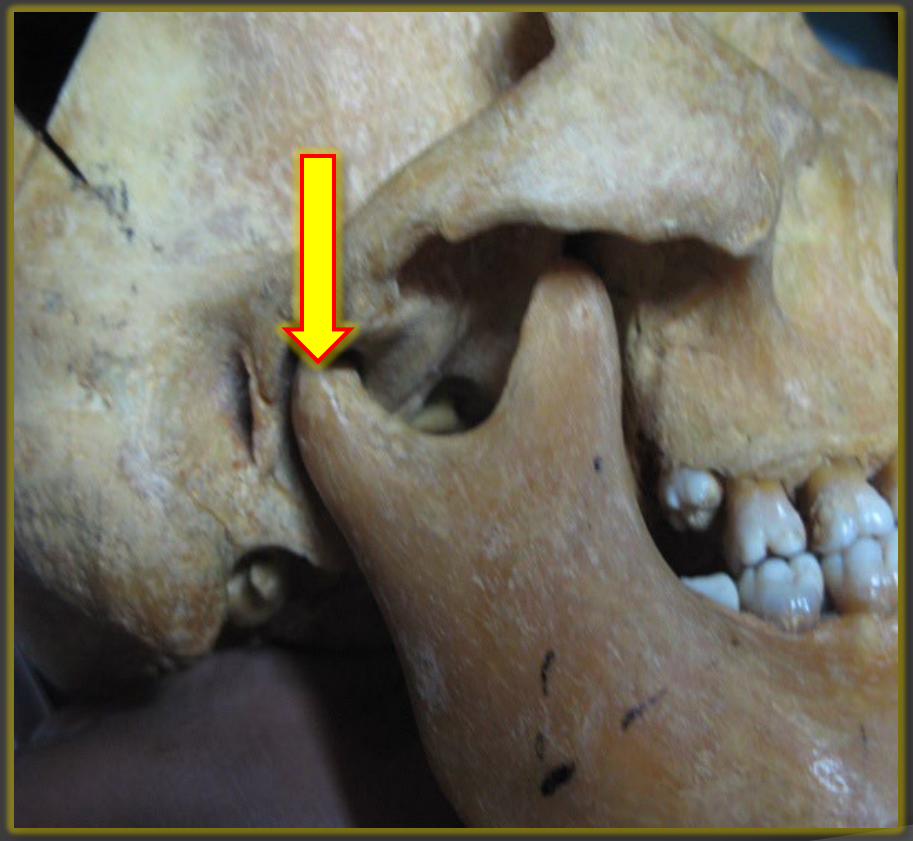
the intersection of the external contour of the cranial base with the dorsal contour of the neck of the mandible(collum mandubulae).





14. CONDYLION(Co)

the anterior superior point of the condyle

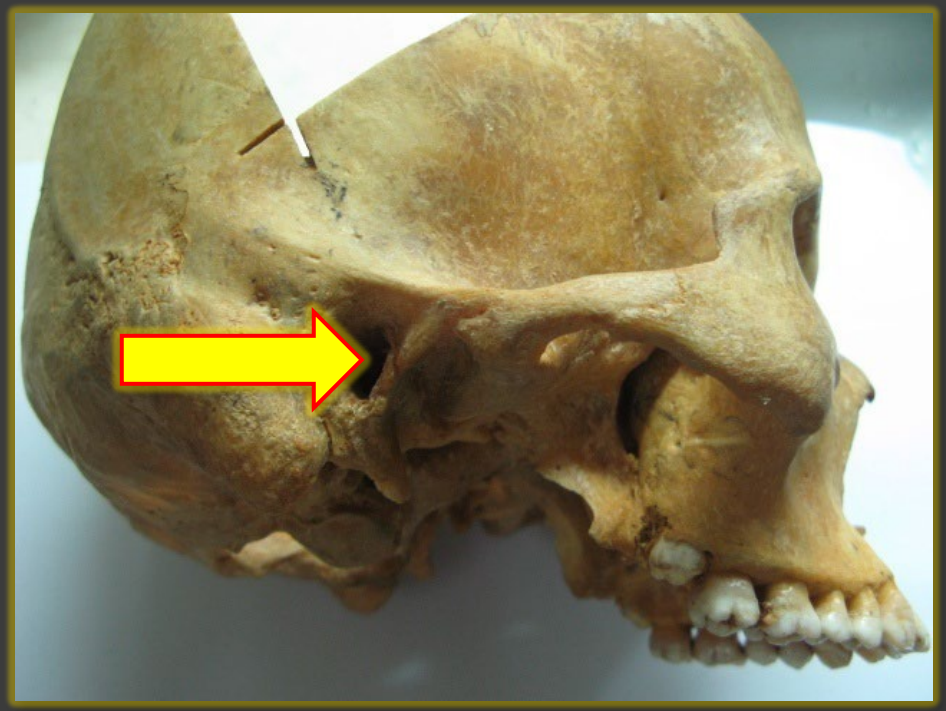


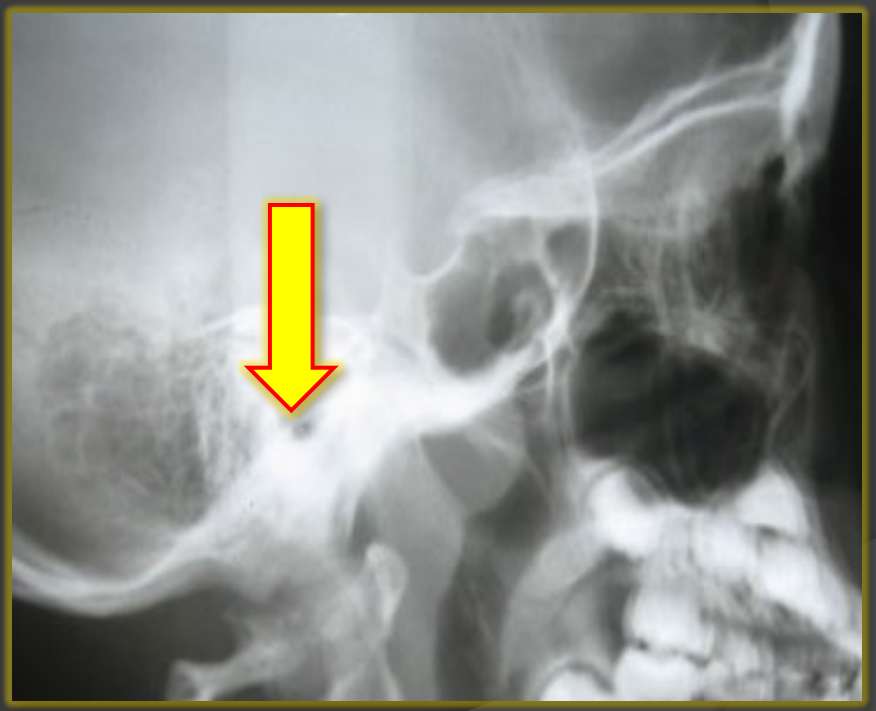
15. ORBITALE(Or)

the lowermost point in the lower margin of the bony orbit that may be palpated under the skin.

16. PORION(Po)

the central point of the upper margin of the external auditory meatus

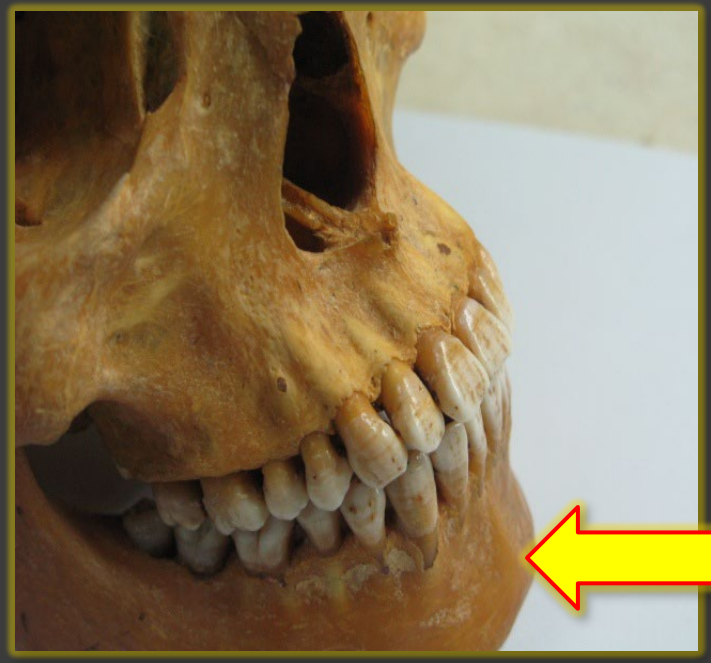




THREE PROMINENCES OF THE BONY CHIN

17. POGONION(Pg)

the anterio point of the bony chin in the midsagittal plane.



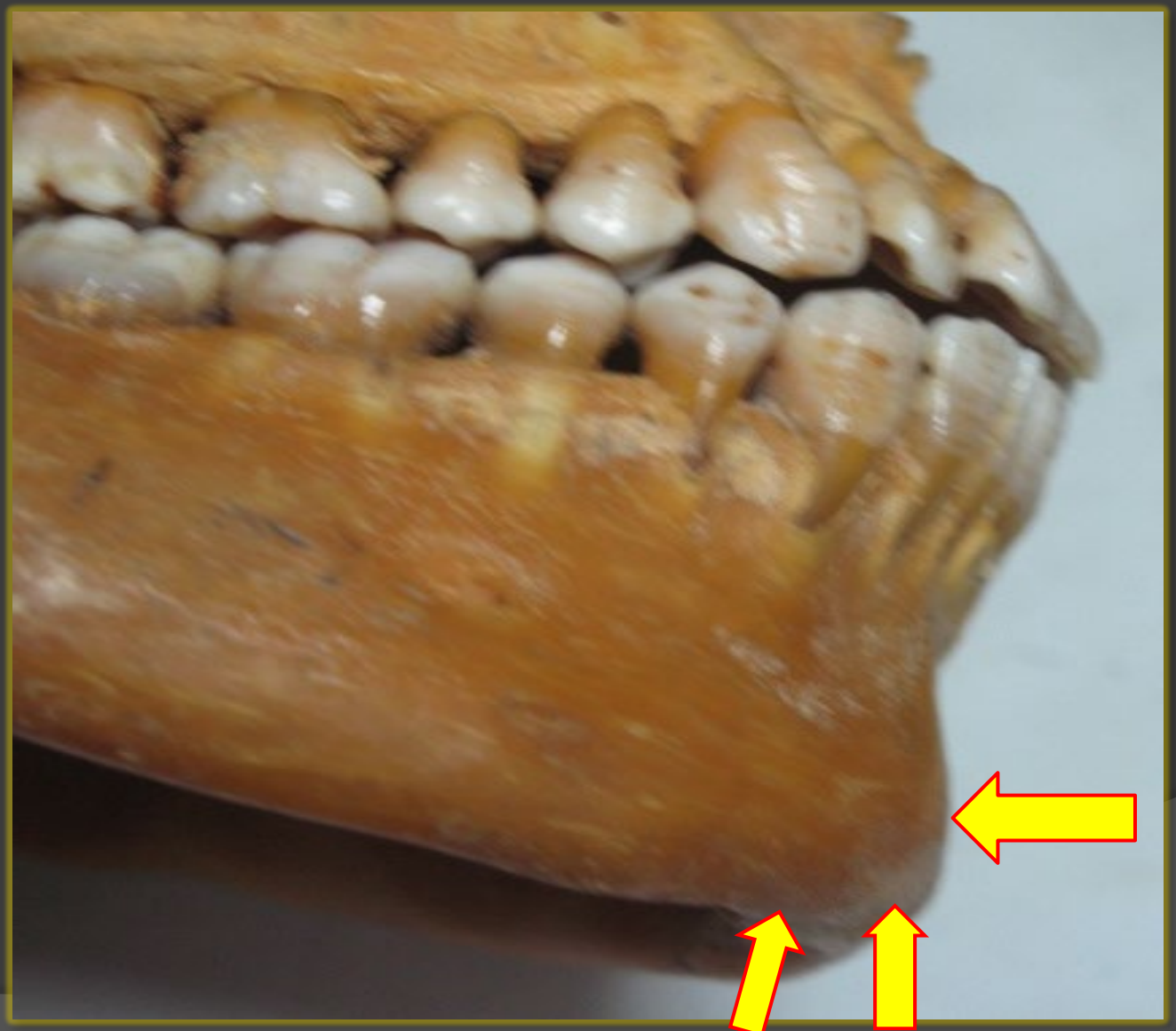
18. GNATHION(Gn)

the most inferior point on the mandibular symphisis in the midsagittal plane.

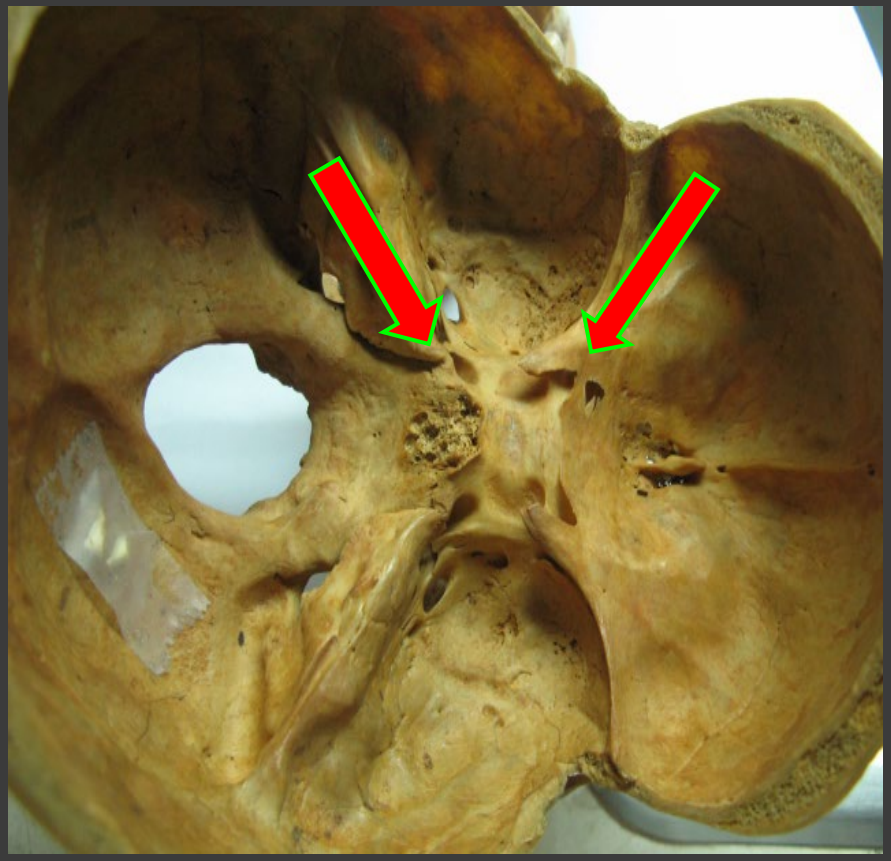
19. MENTON(Me)

the posterior point in the mandibular symphisis in the midsagittal plane.

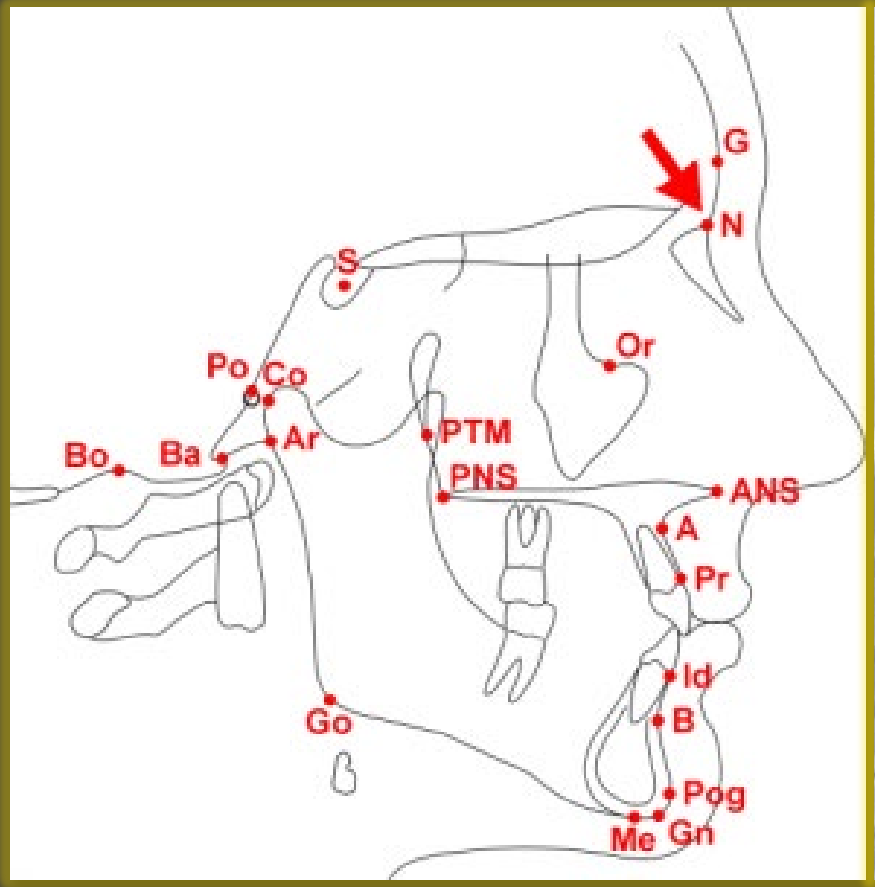
THREE PROMINENCES OF THE BONY CHIN

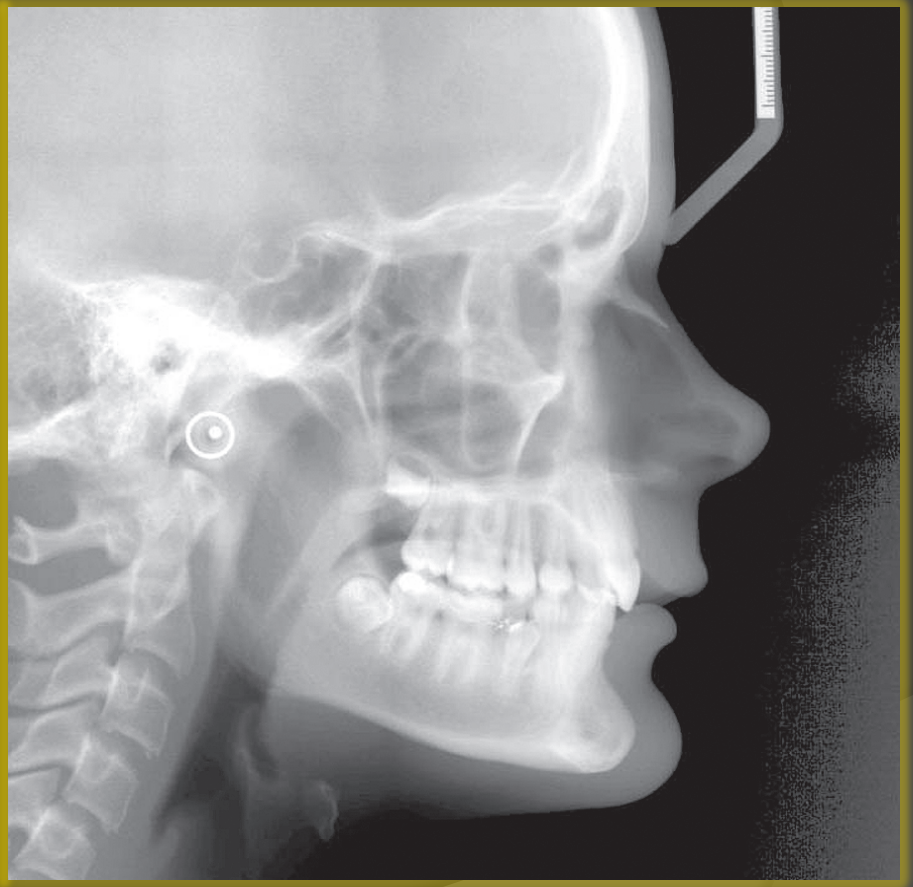


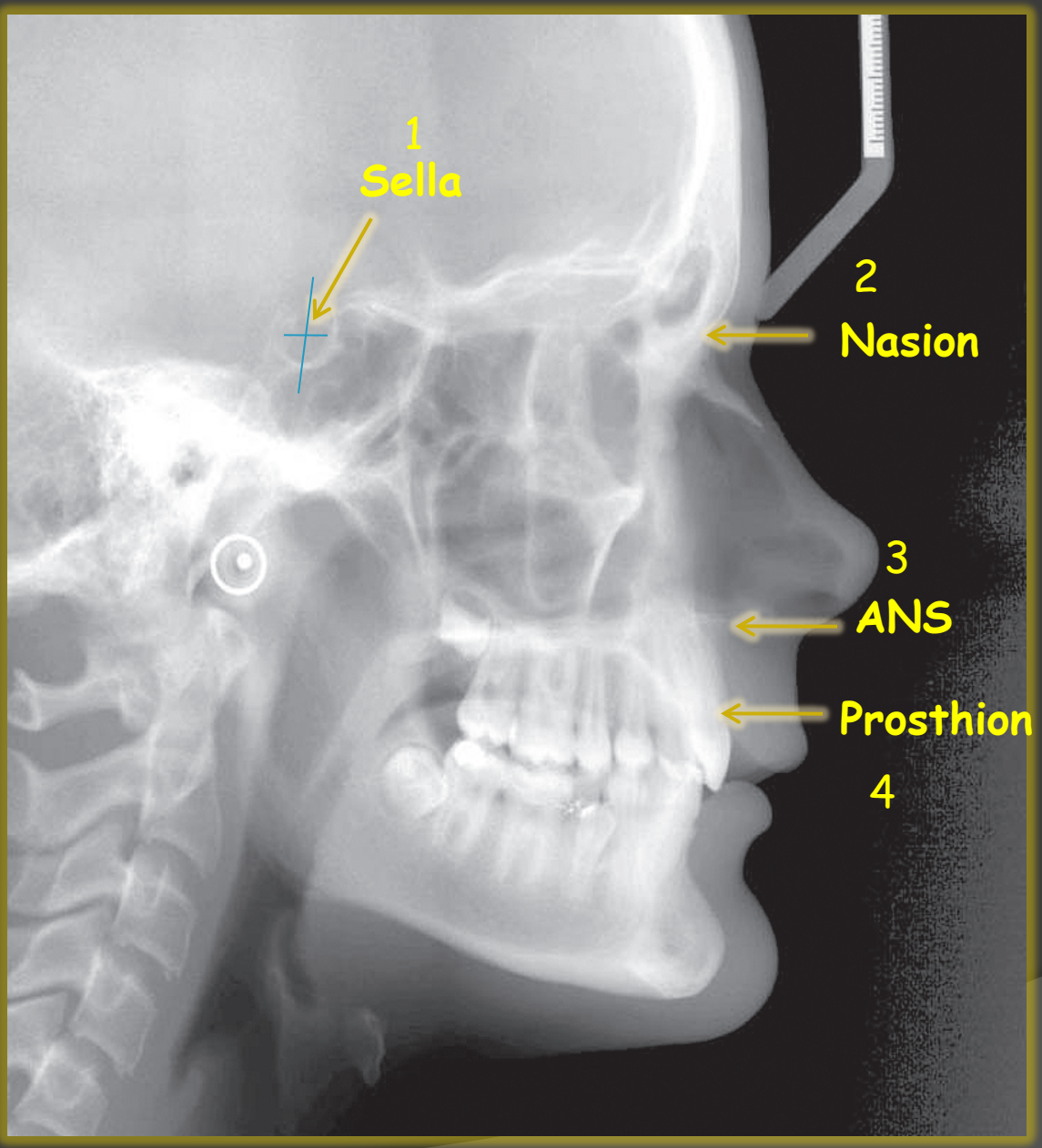
SELLA TURCICA

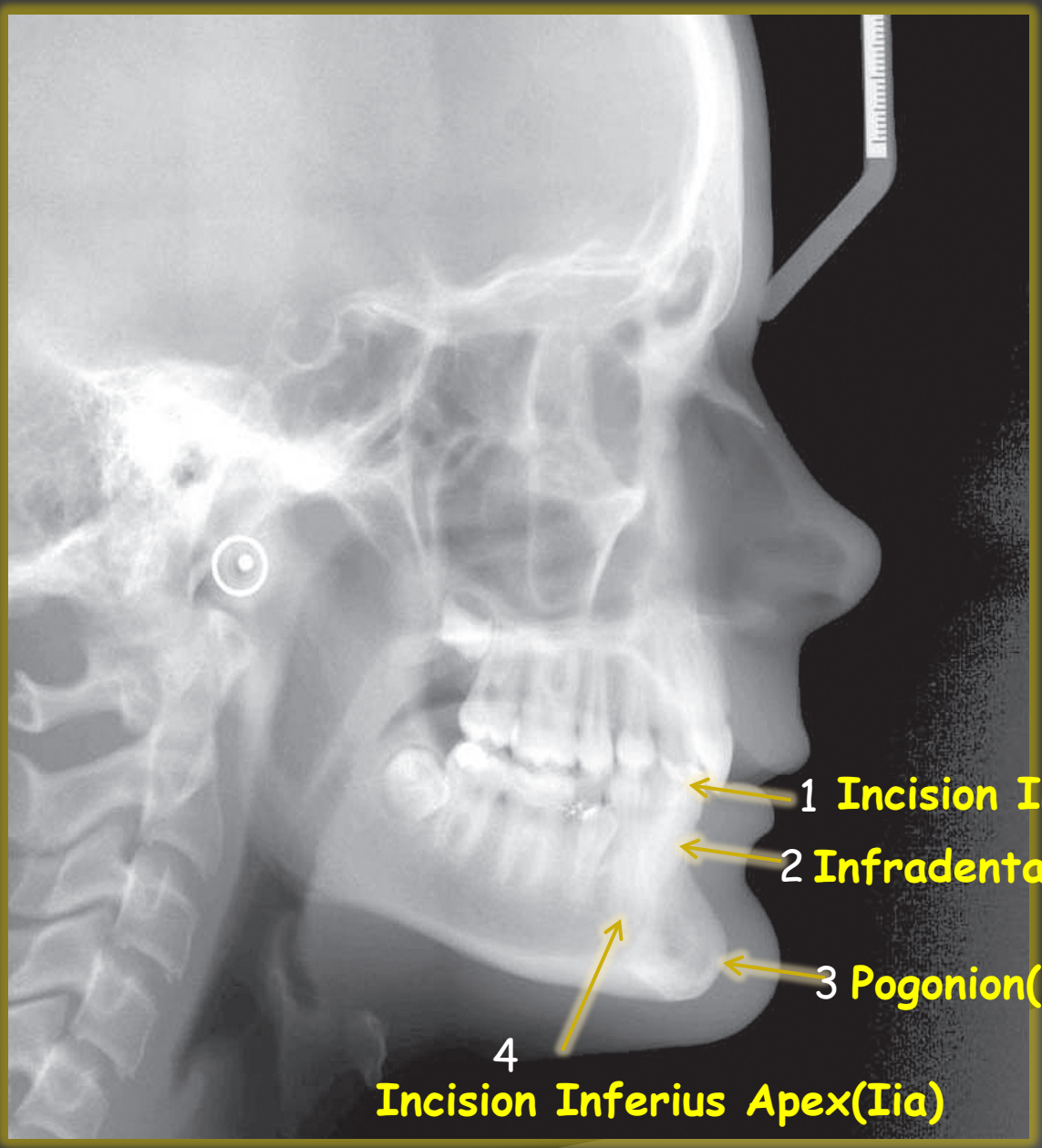


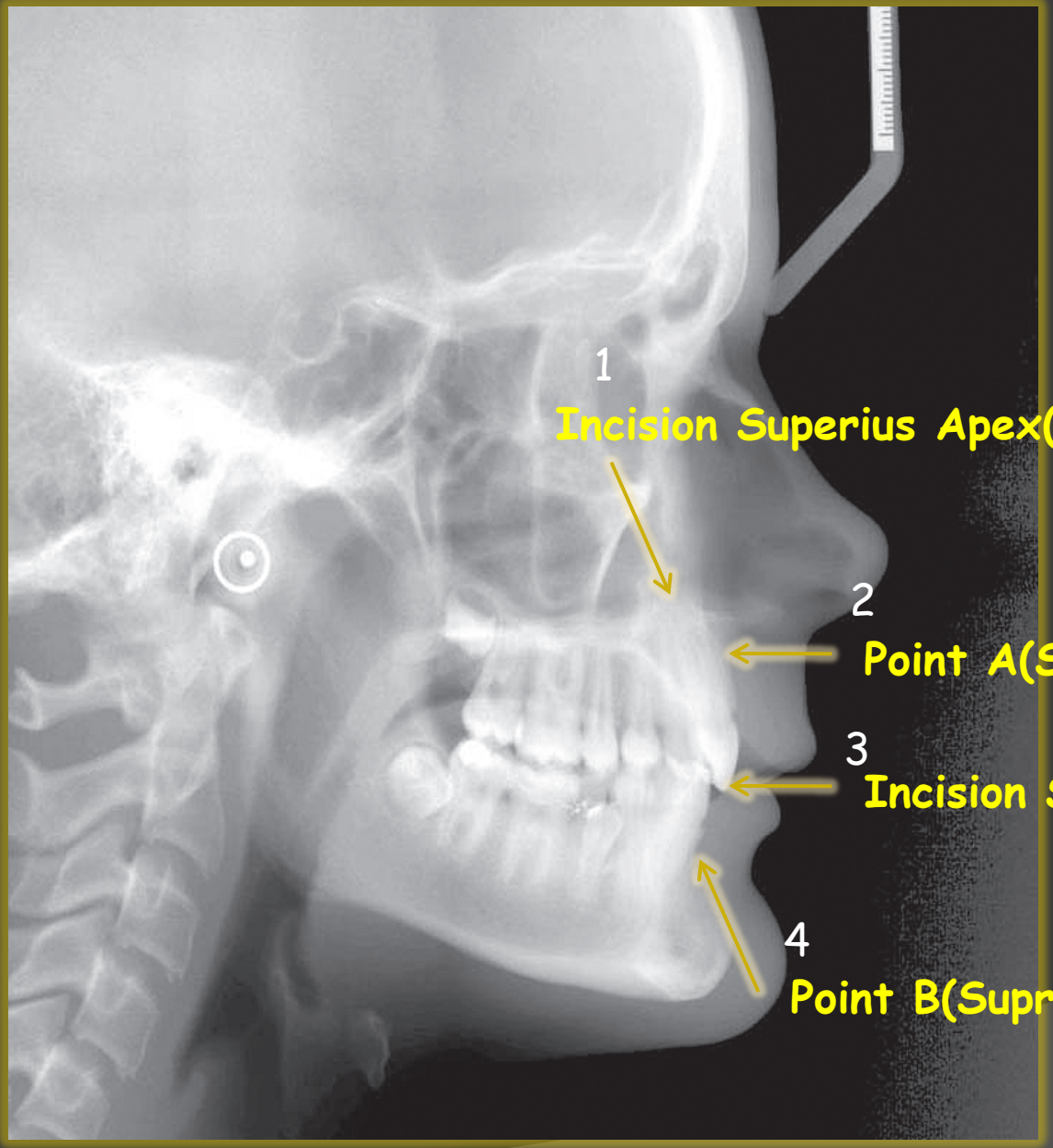
LINES AND ANGLES

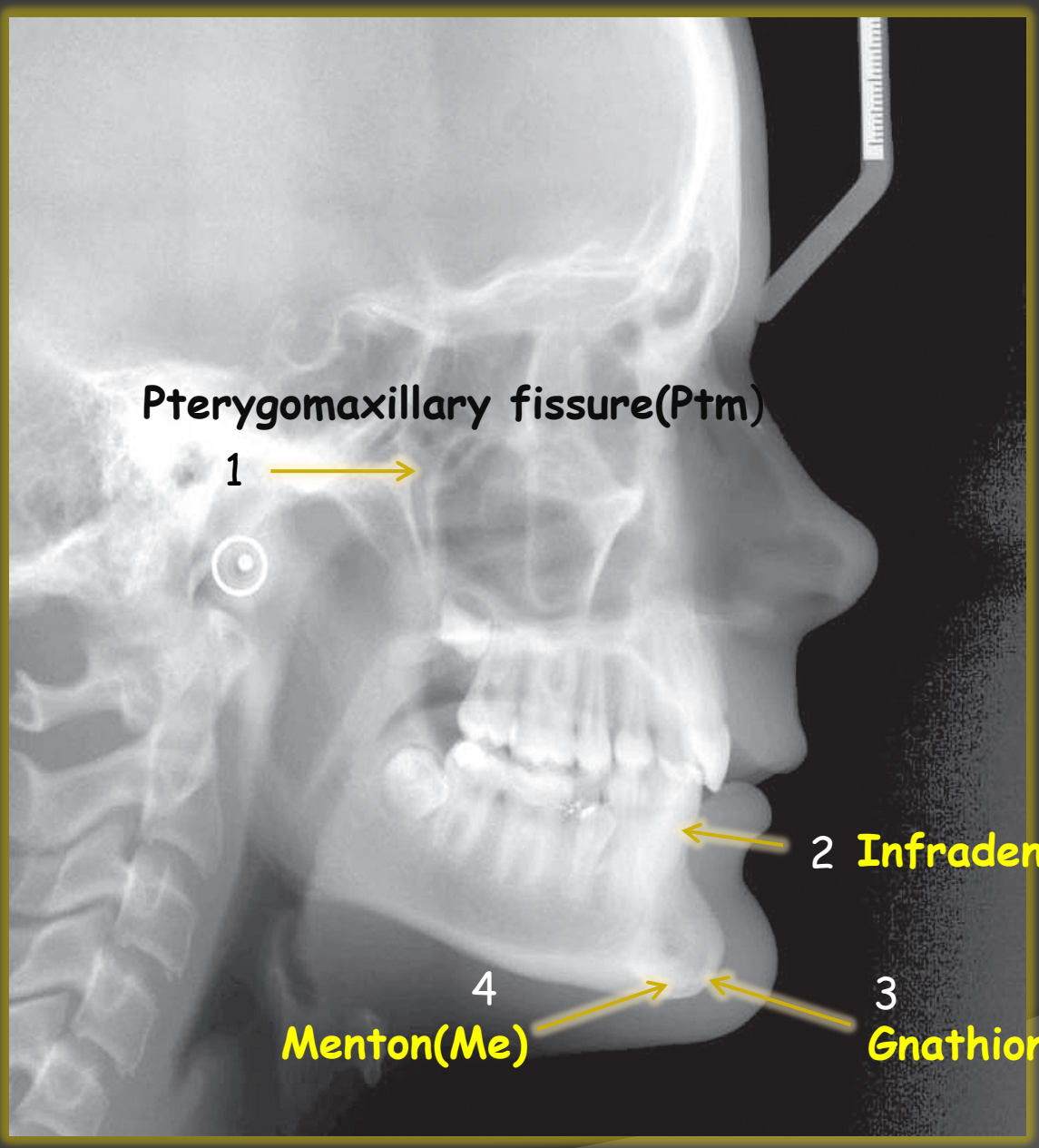


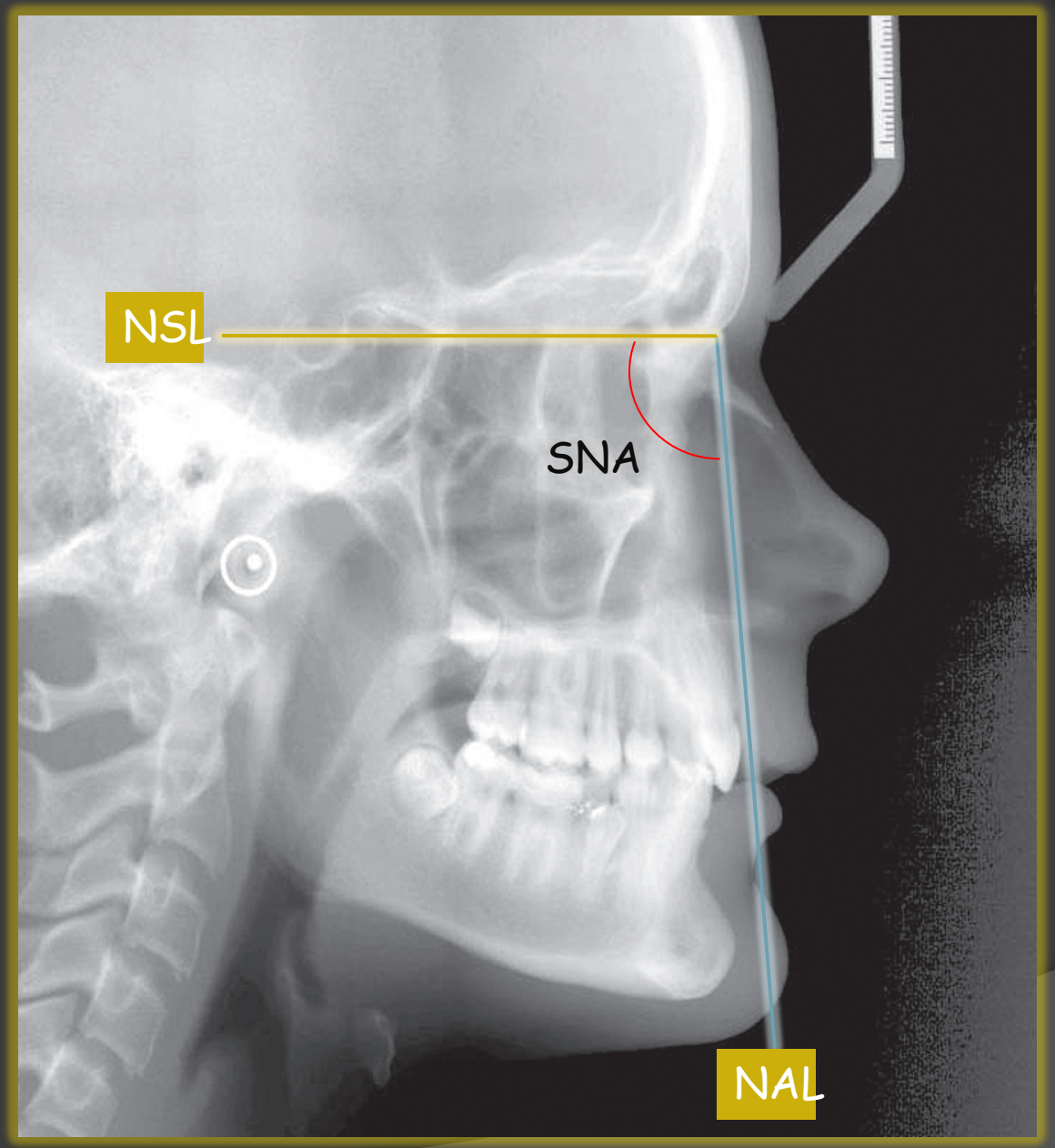


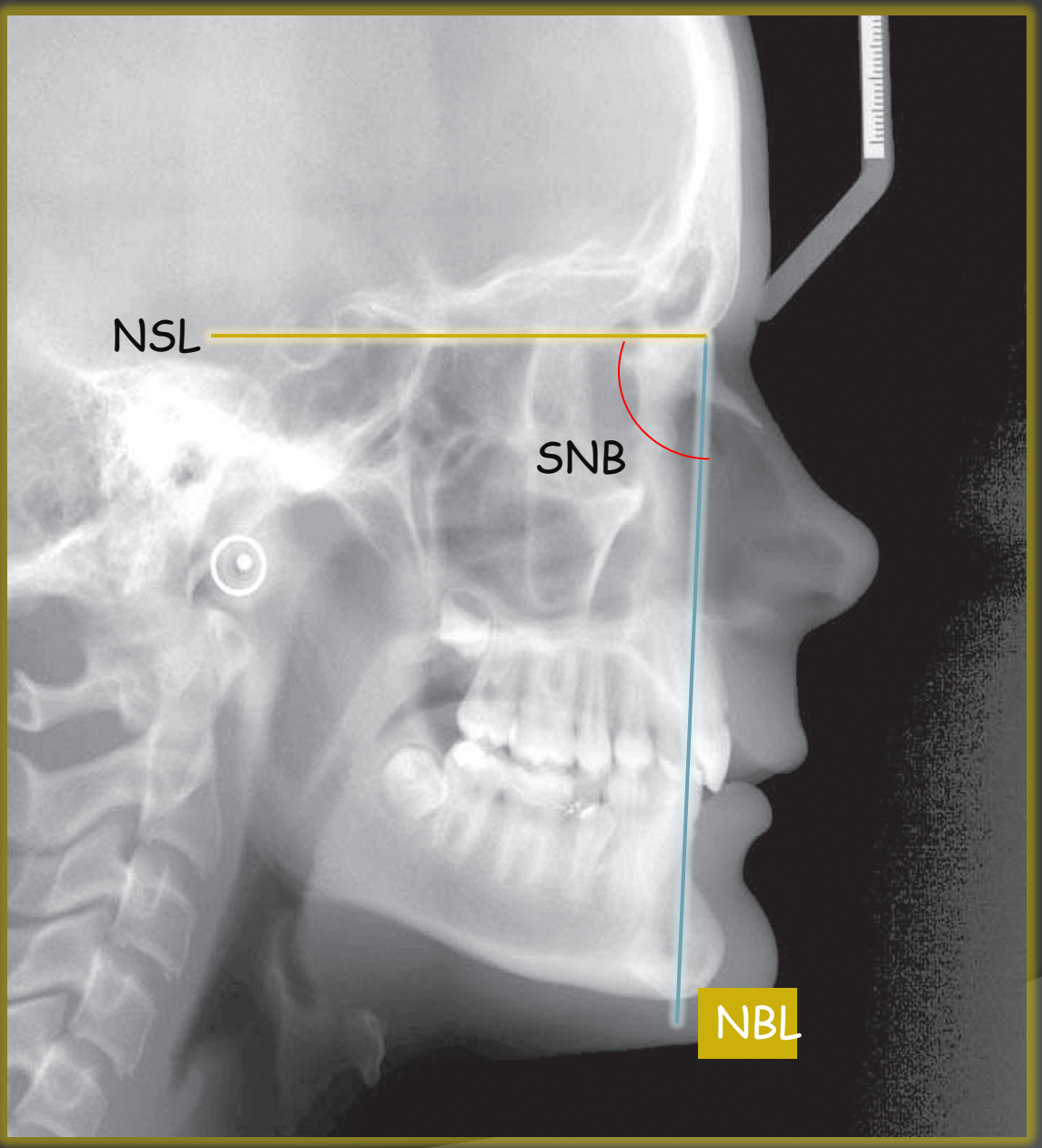

1
Sella
2
Nasion
3
ANS
Prosthion
4

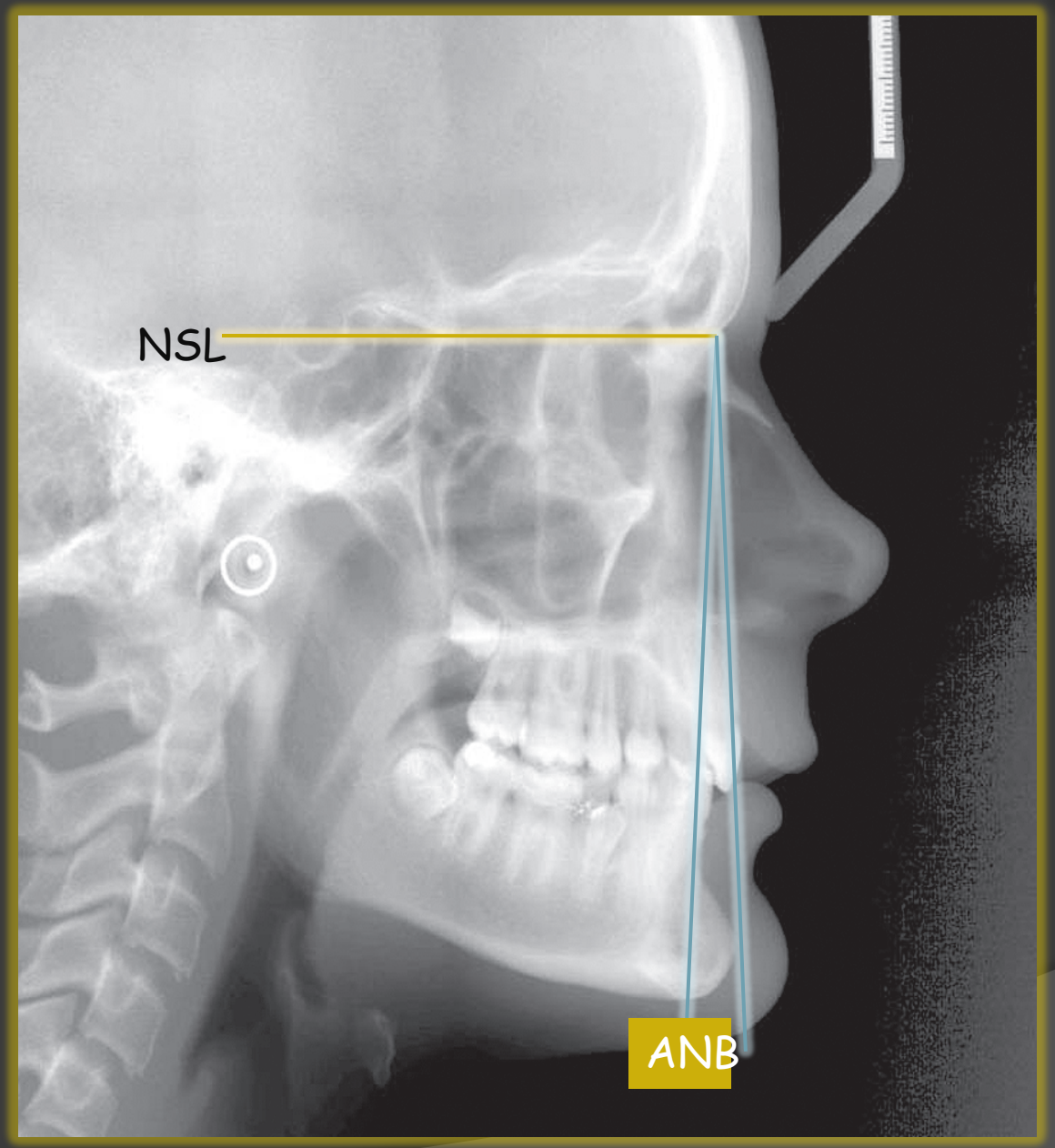

1 Incision Inferius (Ii)
2 Infradentale(Id)
3 Pogonion(Pg)
4
Incision Inferius Apex(Iia)

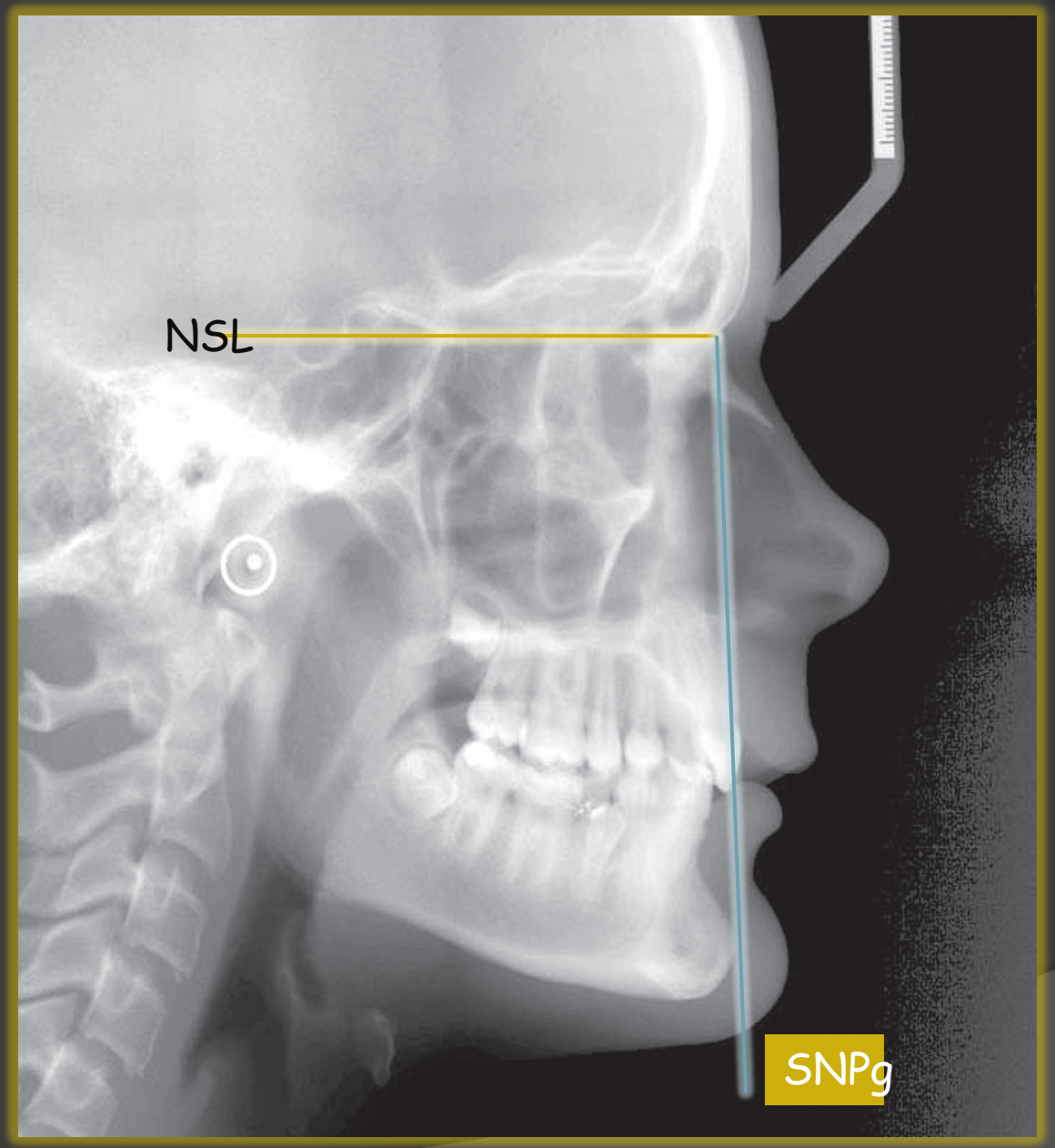

1
Incision Superius Apex(Isa)
2
Point A(Subspinale
3
Incision Superius
4
Point B(Supramentale)

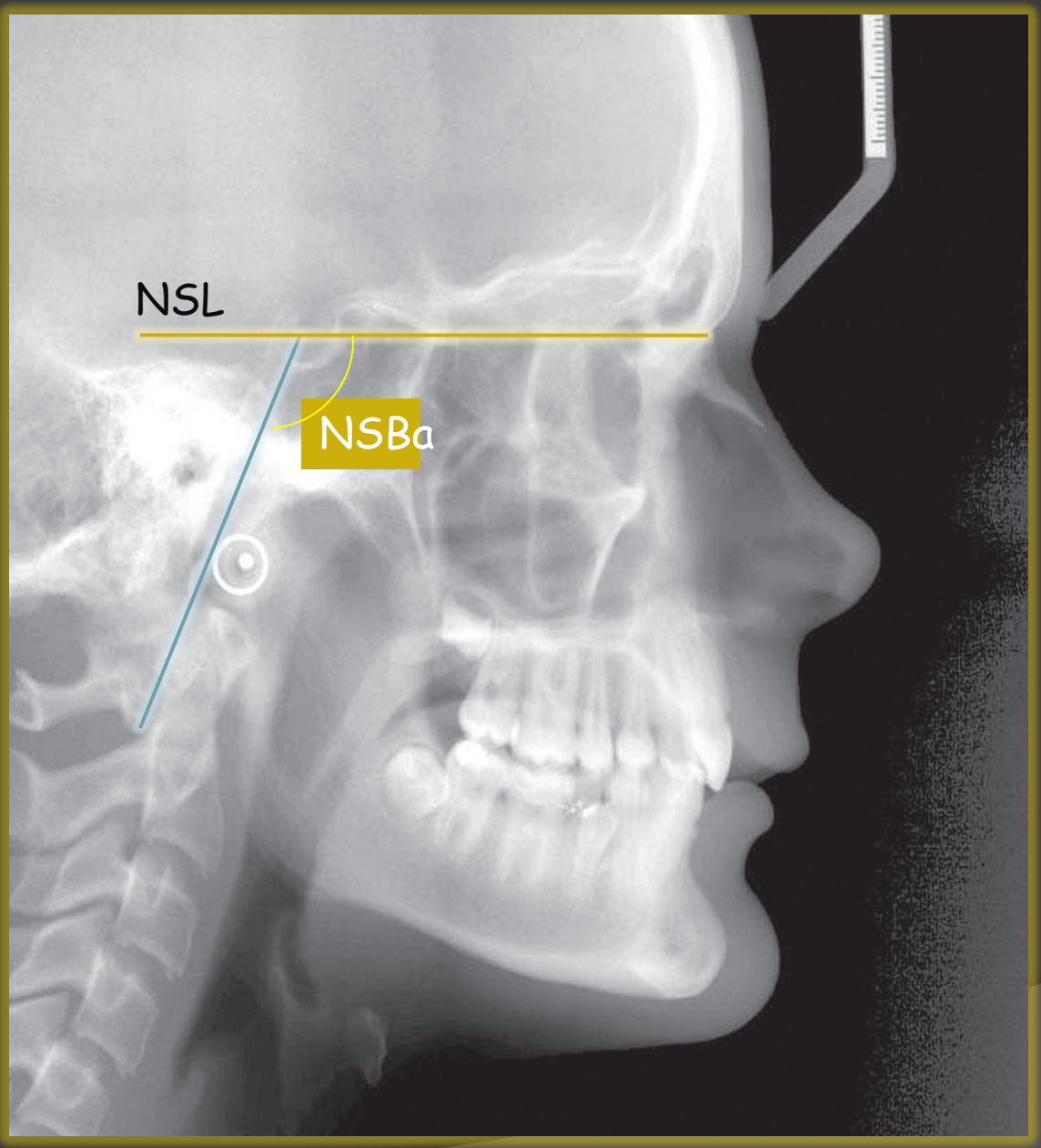

Pterygomaxillary fissure(Ptm)
1
2 Infradentale(Id)
4
Menton(Me)
3
Gnathion(Gn)

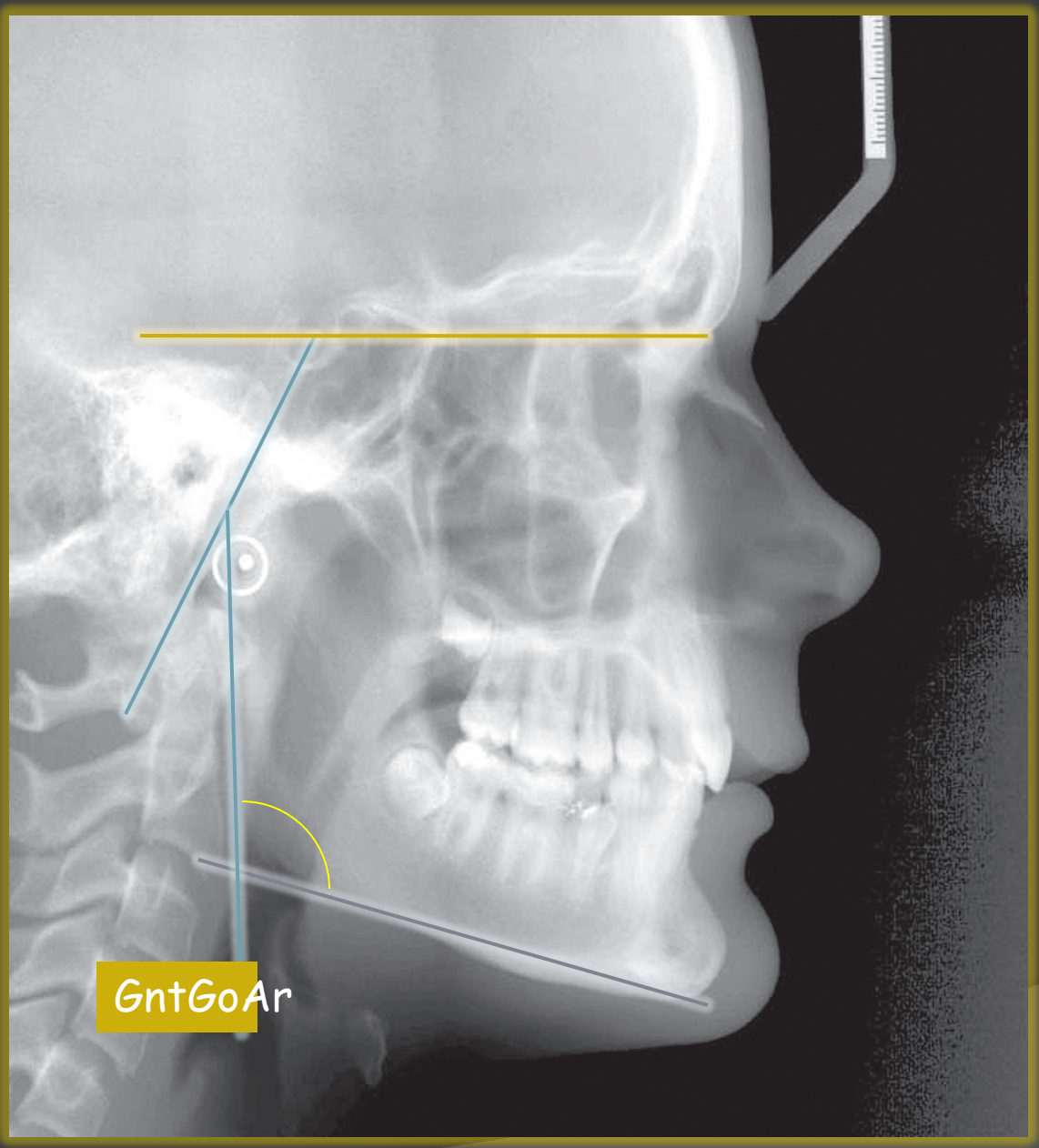

NSL
SNA
NAL

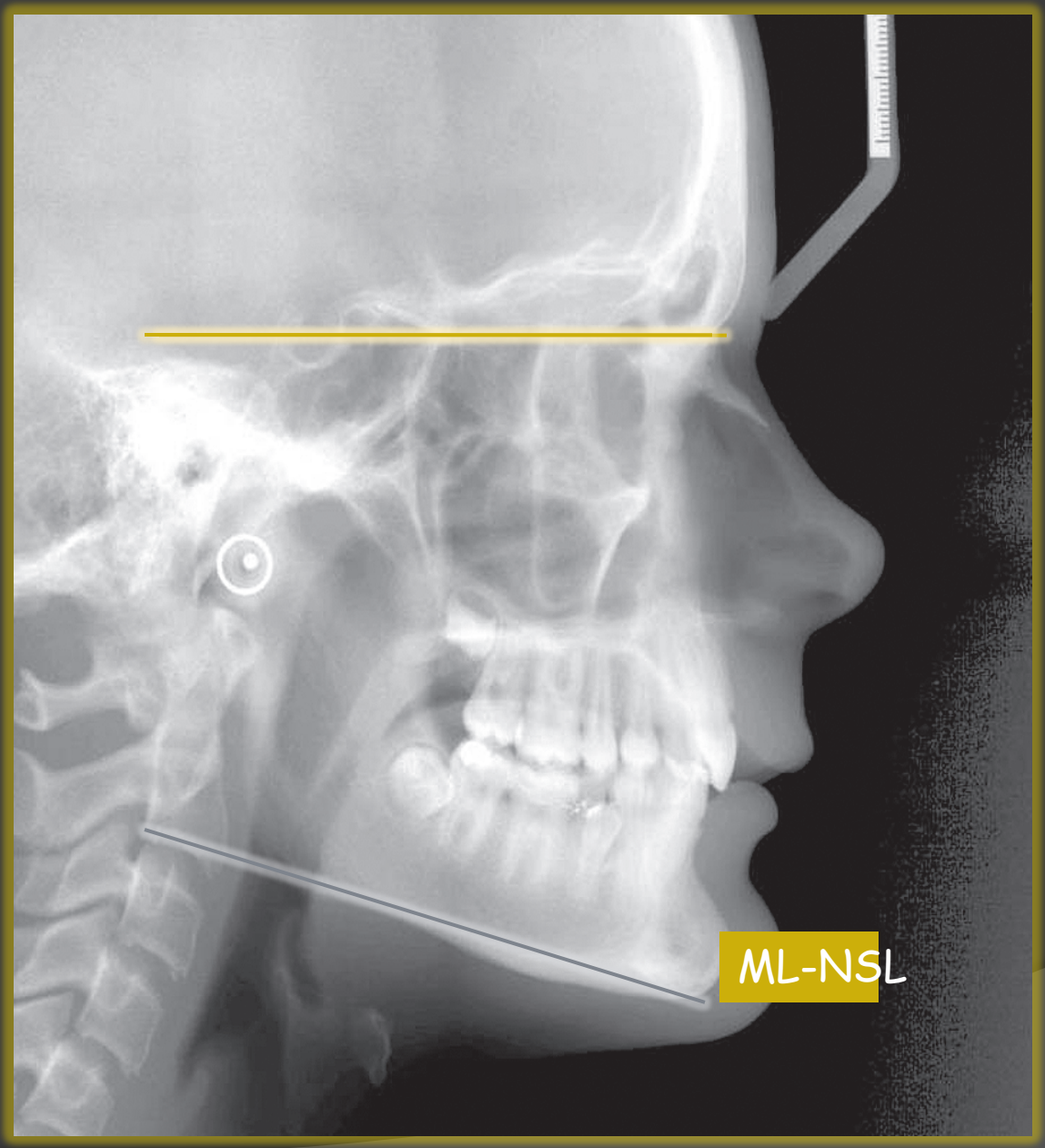

NSL
SNB
NBL

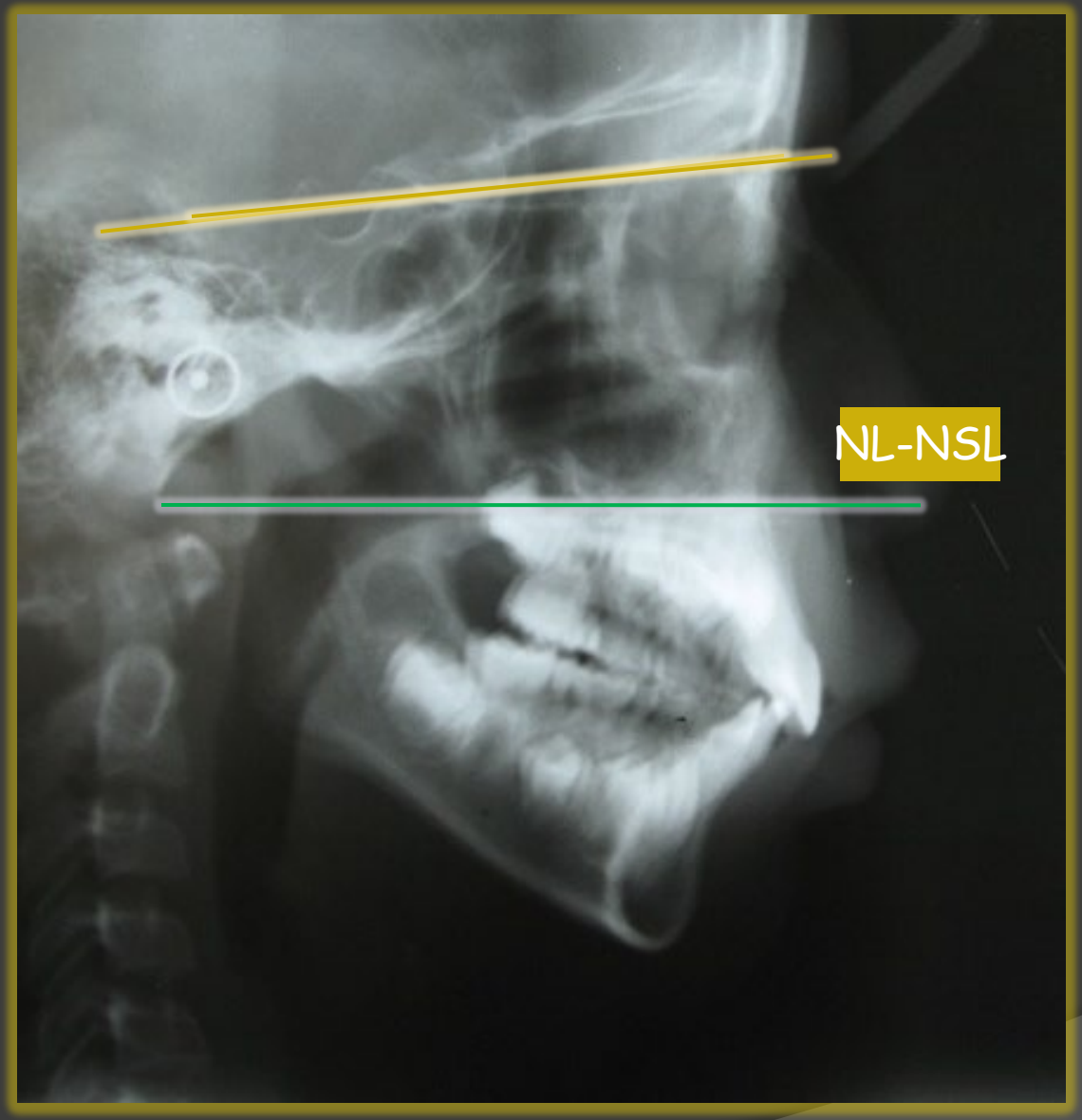

NSL
ANB

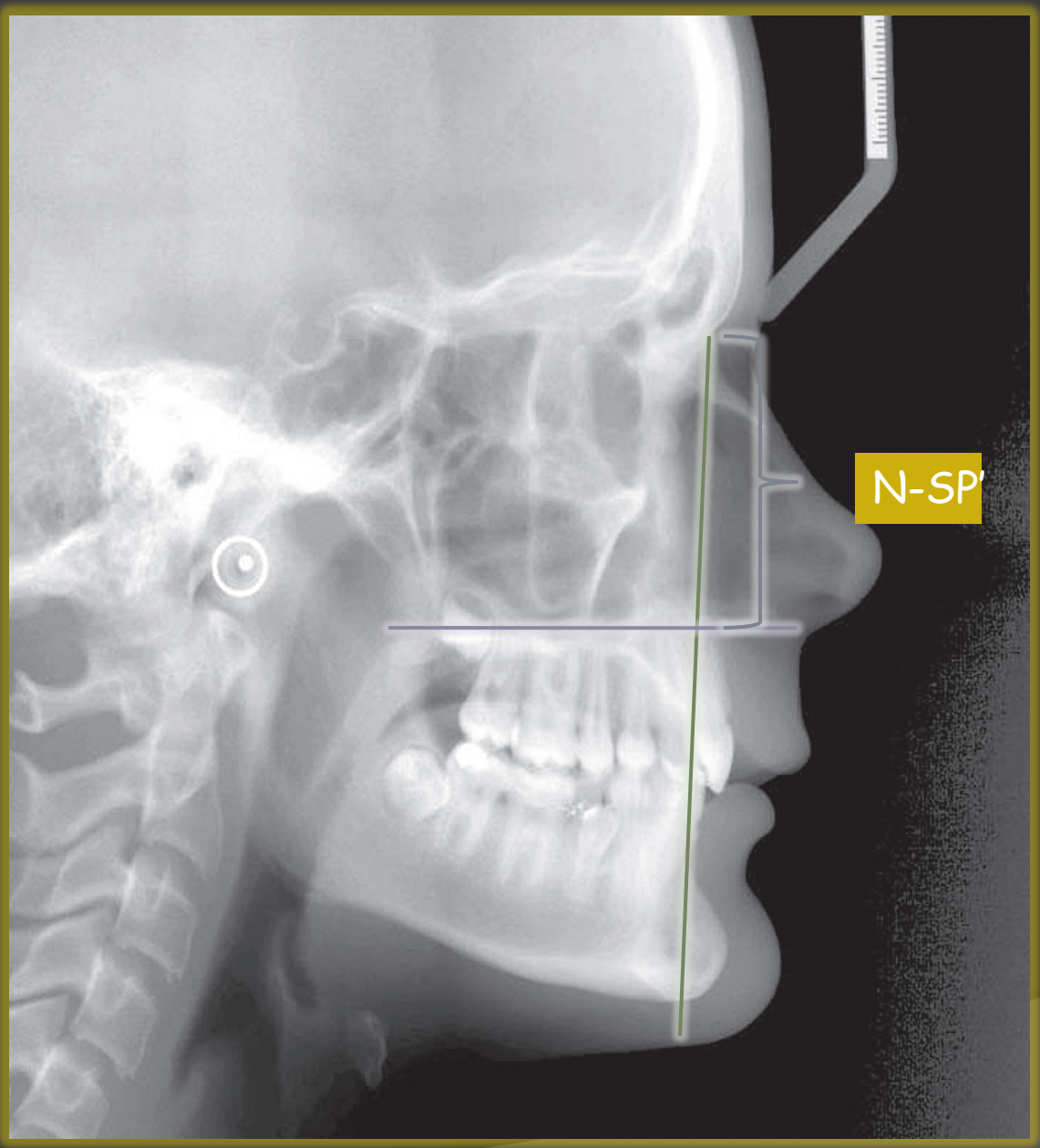

NSL
SNPg

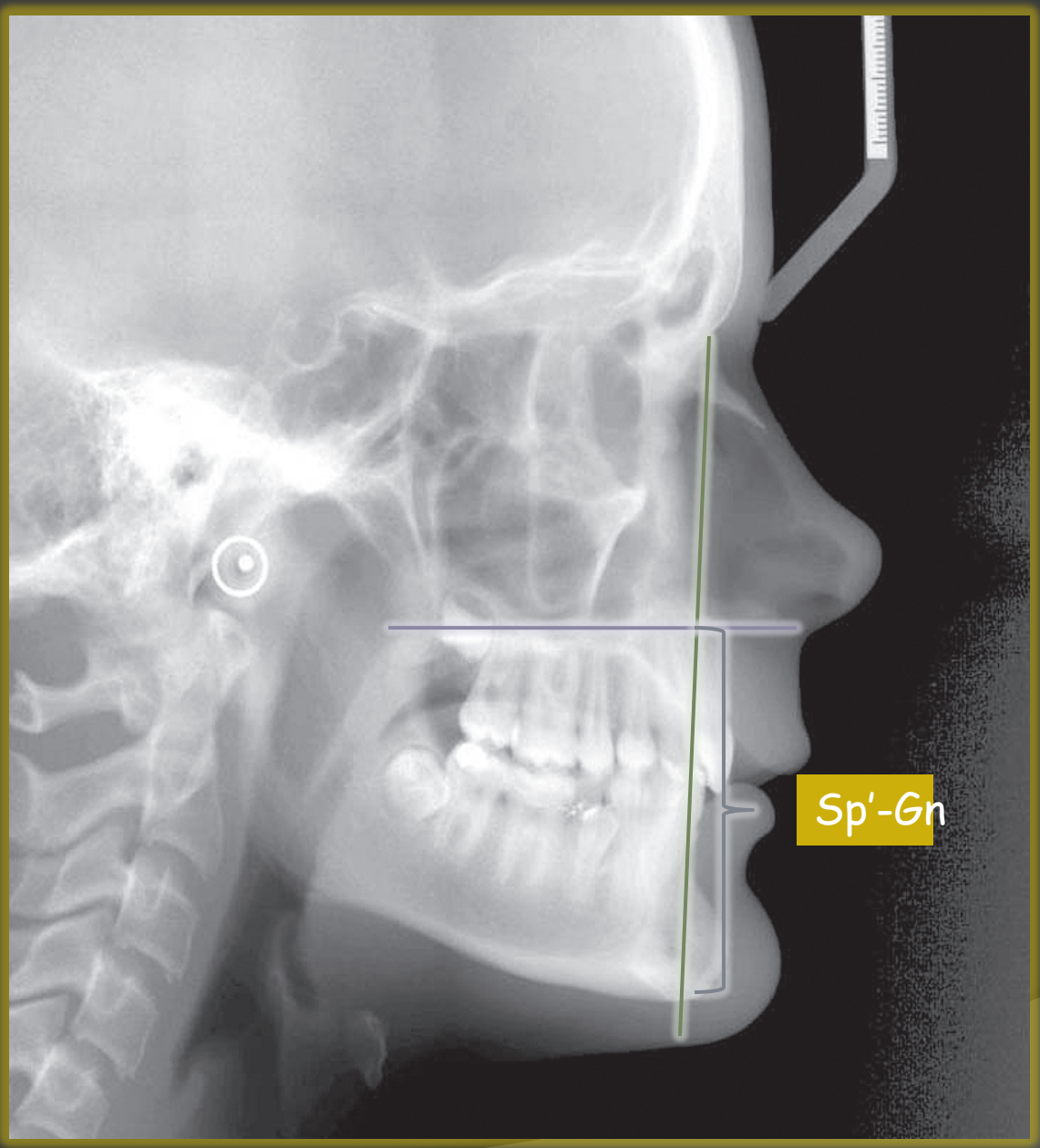

NSL
NSBa

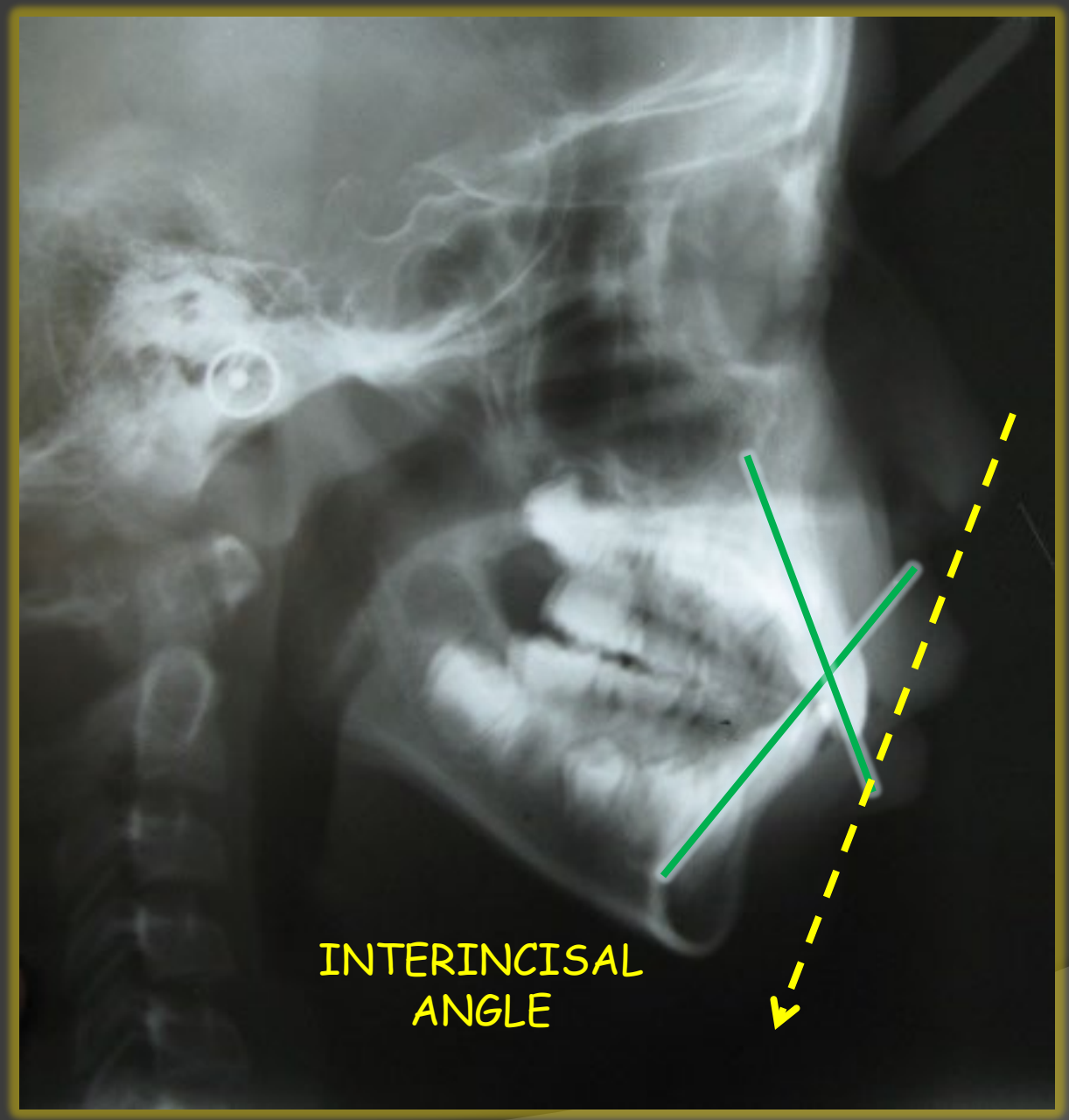

GntGoAr

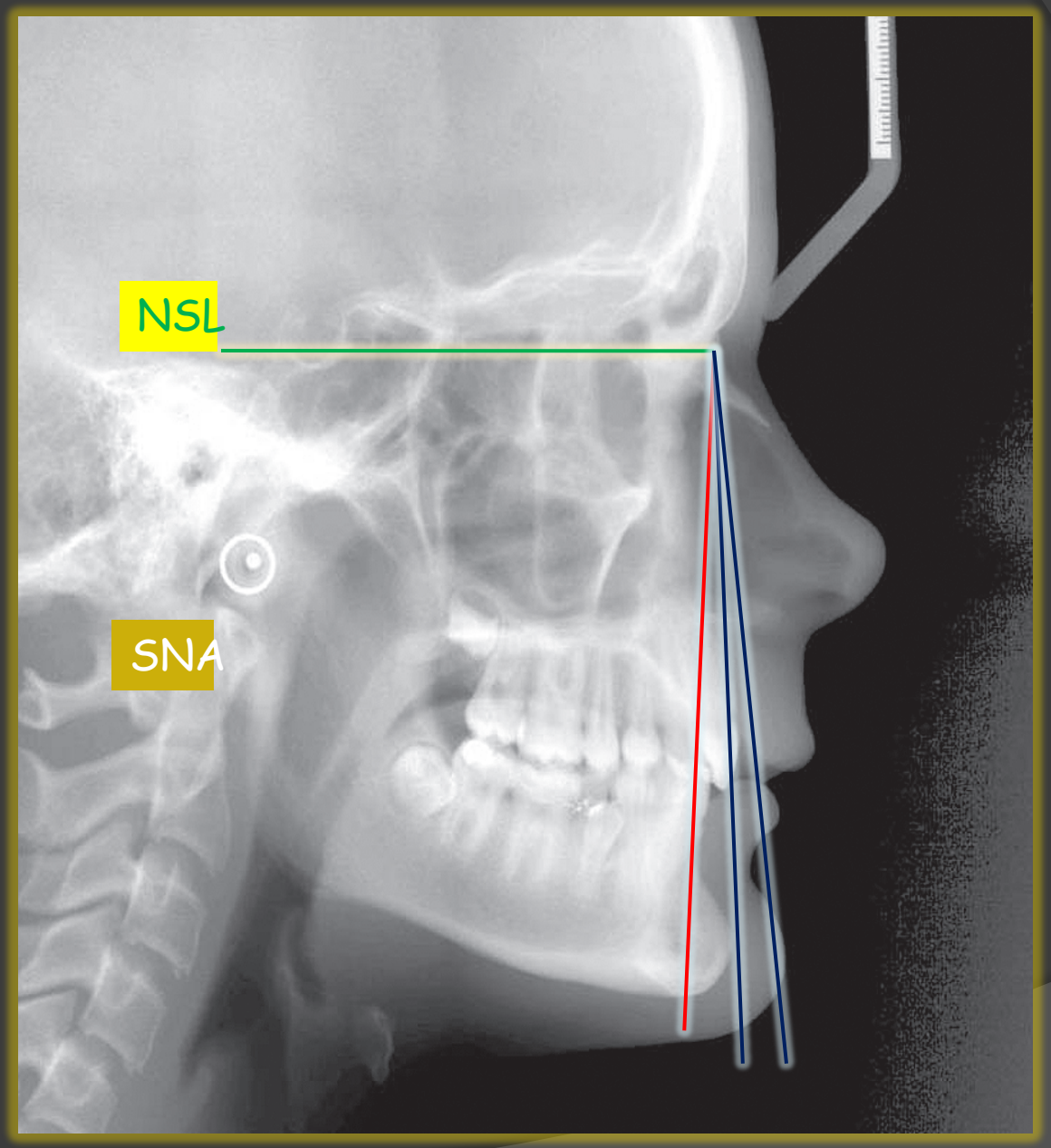

ML-NSL

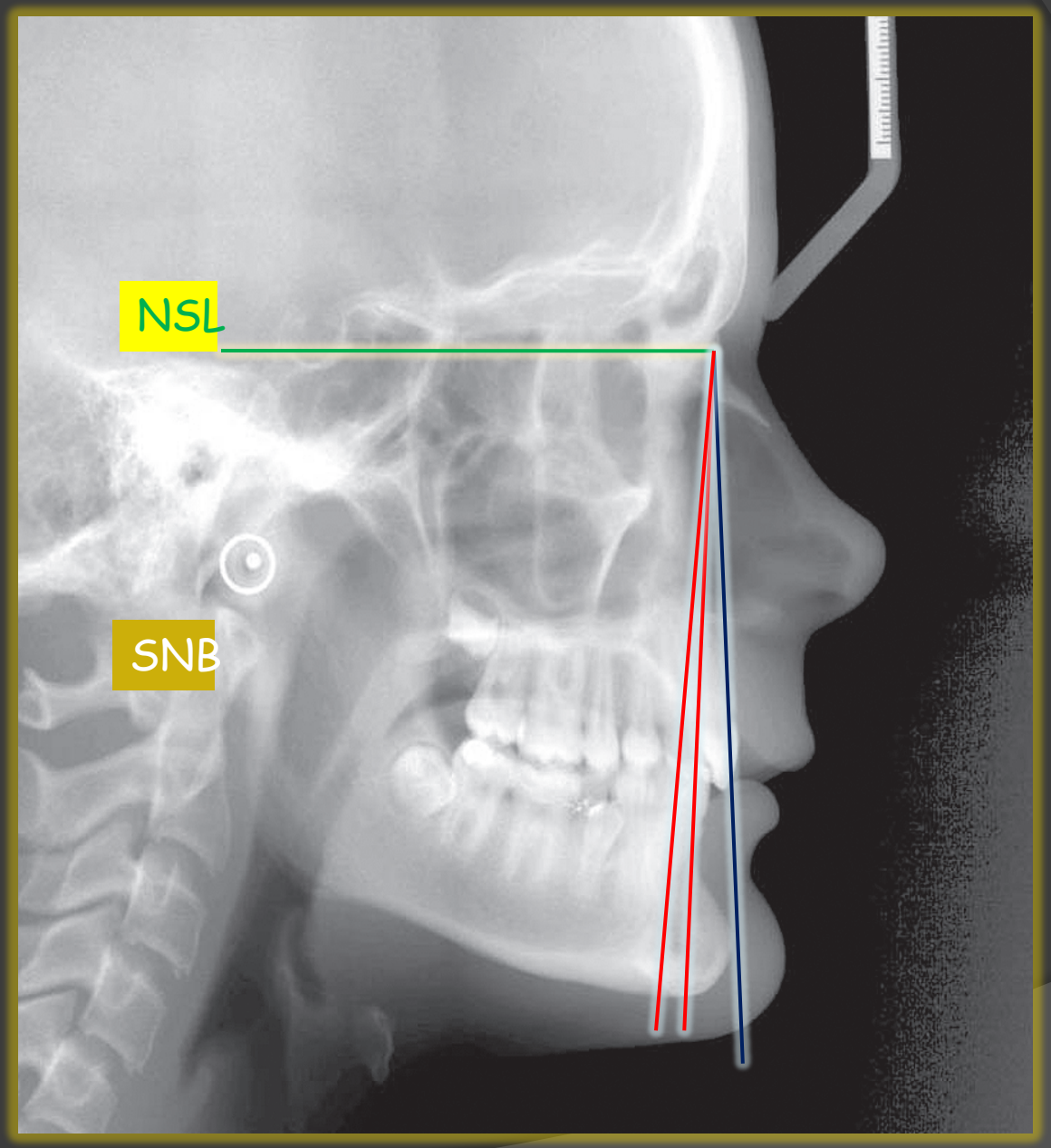

NL-NSL


N-SP'


Sp'-Gn


INTERINCISAL
ANGLE

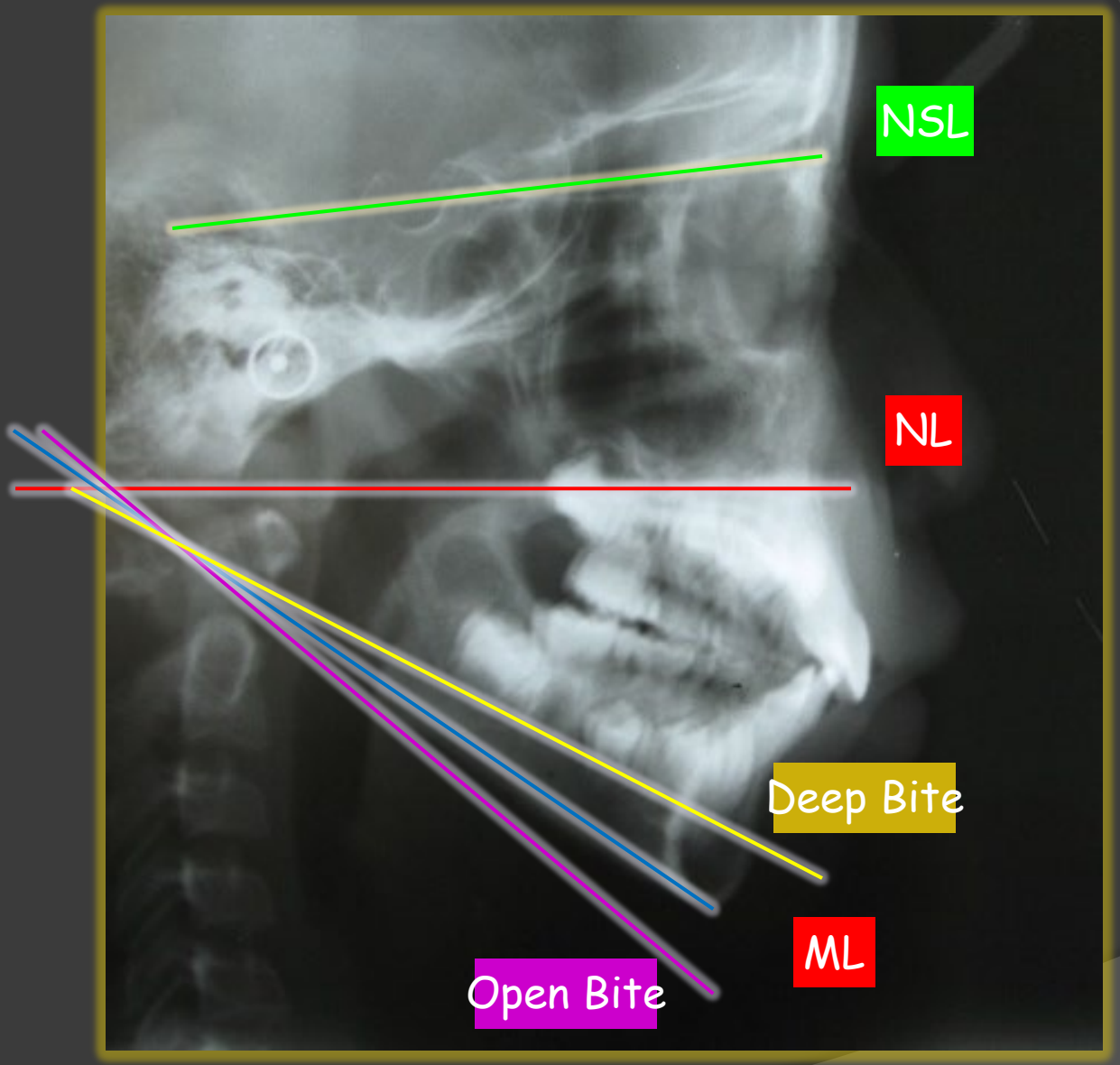

NSL
SNA


NSL
SNB

SAGITTAL

Angle	SD	Interpret
SNA	79°- 85°	Relationship of maxilla to cranial base
SNB	77°- 83°	Relationship of mandible to cranial base
ANB	0°- 4°	Relationship of mandible to maxilla

IF	Interpret
SNA > 85°	Excessive Maxilla
SNA < 79°	Deficiency Maxilla
SNB > 83°	Excessive Mandible
SNB < 77°	Deficiency Mandible
ANB > 4°	Distal Jaw Relationship (Class II)
ANB < 0°	Mesial Jaw Relationship (Class III)

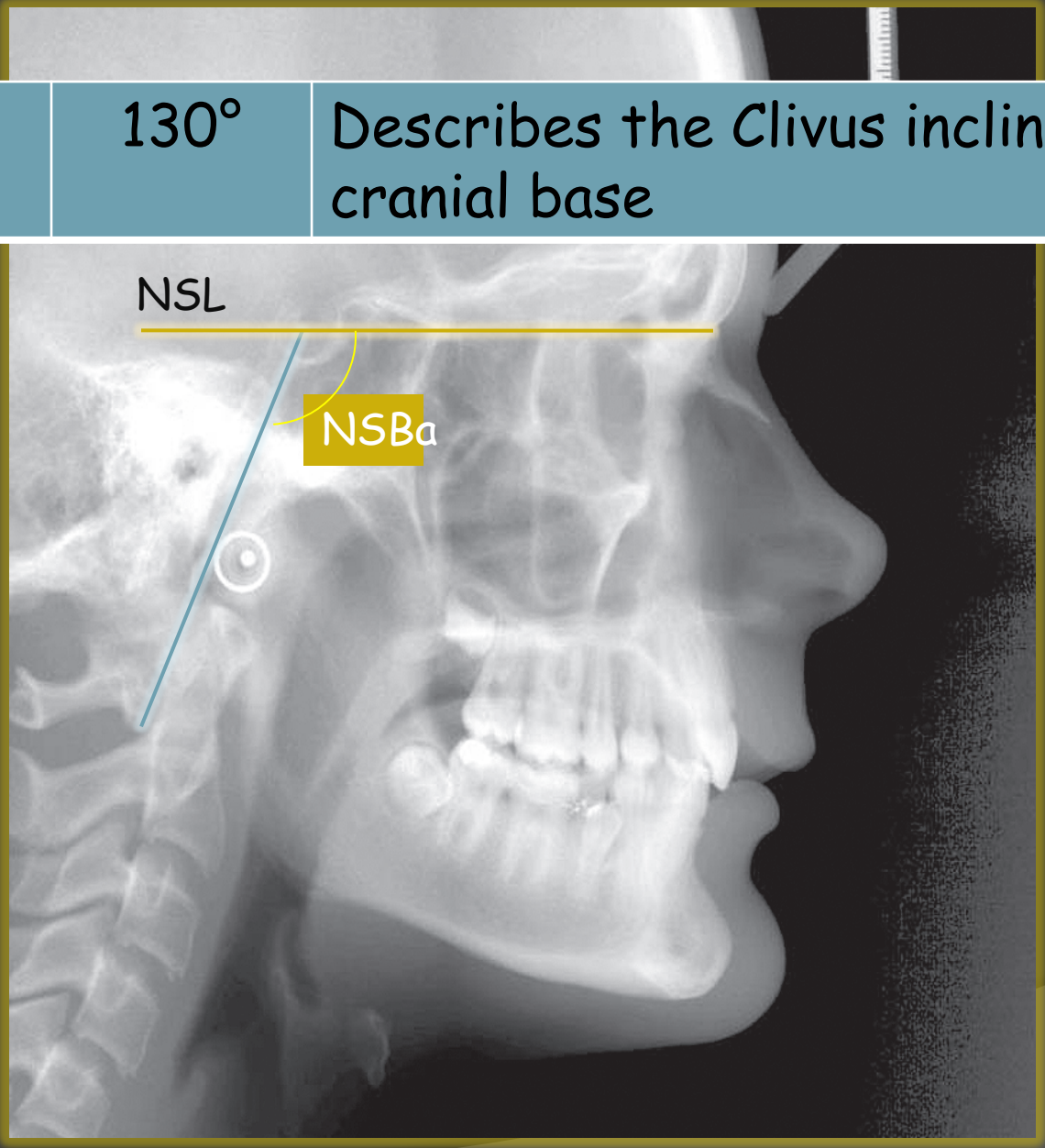

NSL
NL
Deep Bite
ML
Open Bite

VERTICAL

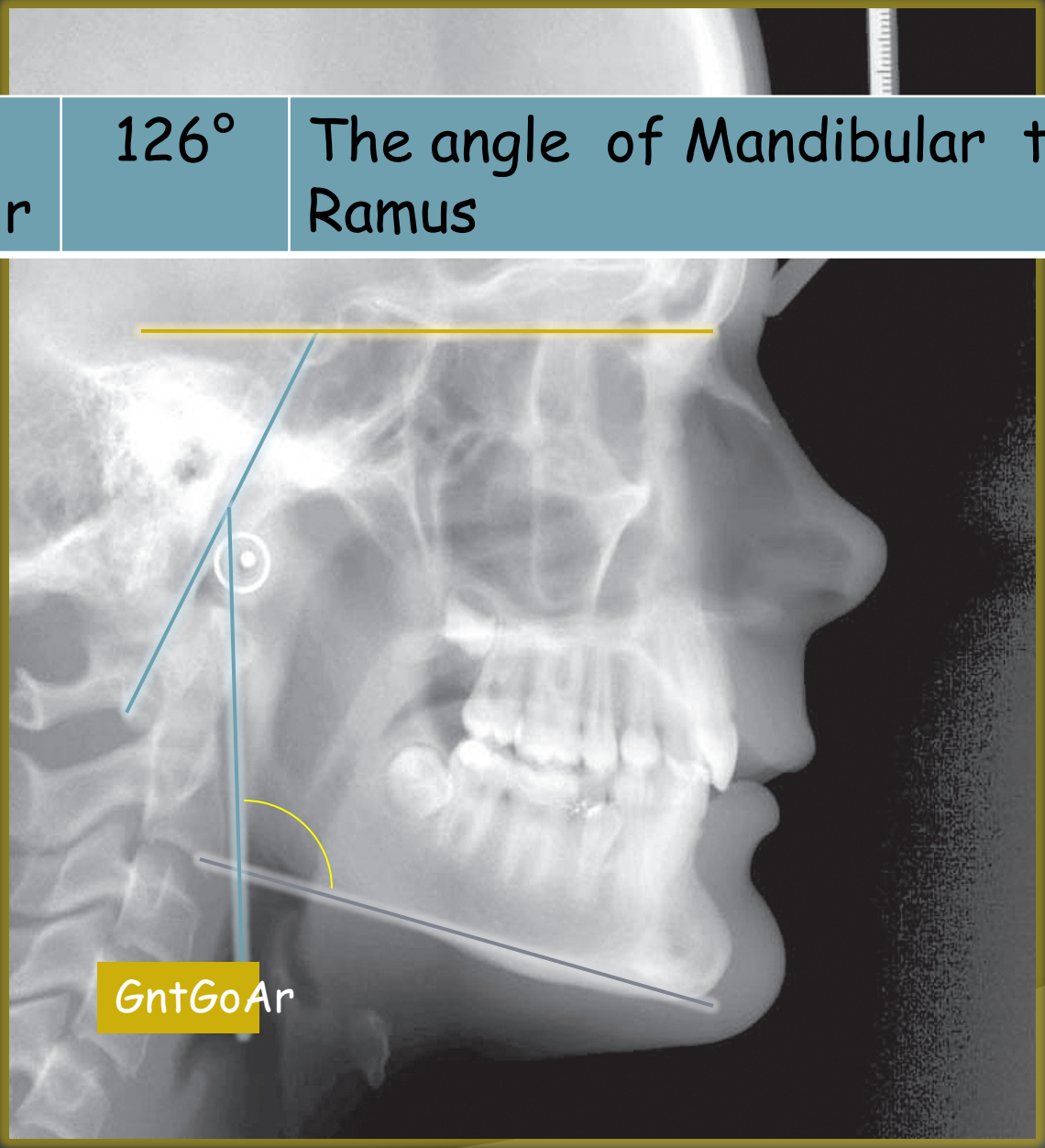
Angle	SD	Interpret
ML-NSL	32°	Relationship of mandible to cranial base
NL-NSL	8.5°	Relationship of maxillae to cranial base
ML-NL	23.5°	Relationship of mandible to maxilla

IF	Interpret
ML-NSL > 32°	Posterior rotation of mandible
ML-NSL < 32°	Anterior rotation of mandible
NL-NSL > 8.5°	High angle of Maxilla
NL-NSL < 8.5°	Low angle of Maxilla
ML-NL > 23.5°	Open Jaw Relationship (Open bite)
ML-NL < 23.5°	Close Jaw Relationship (Deep bite)

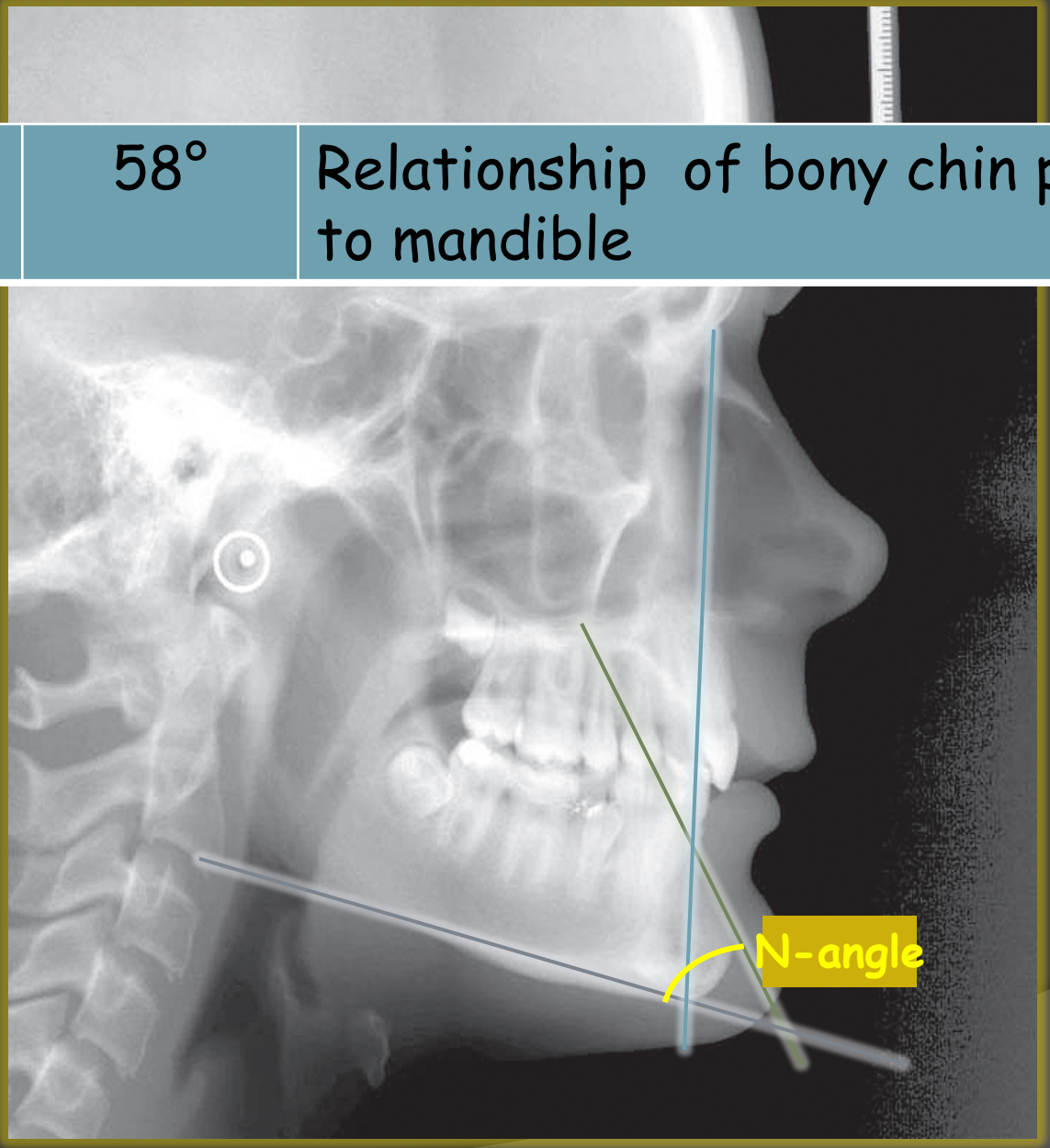
NSBa	130°	Describes the Clivus inclination to cranial base



Gn-tgo-Ar	126°	The angle of Mandibular to Ramus



Nordeval	58°	Relationship of bony chin prominance to mandible



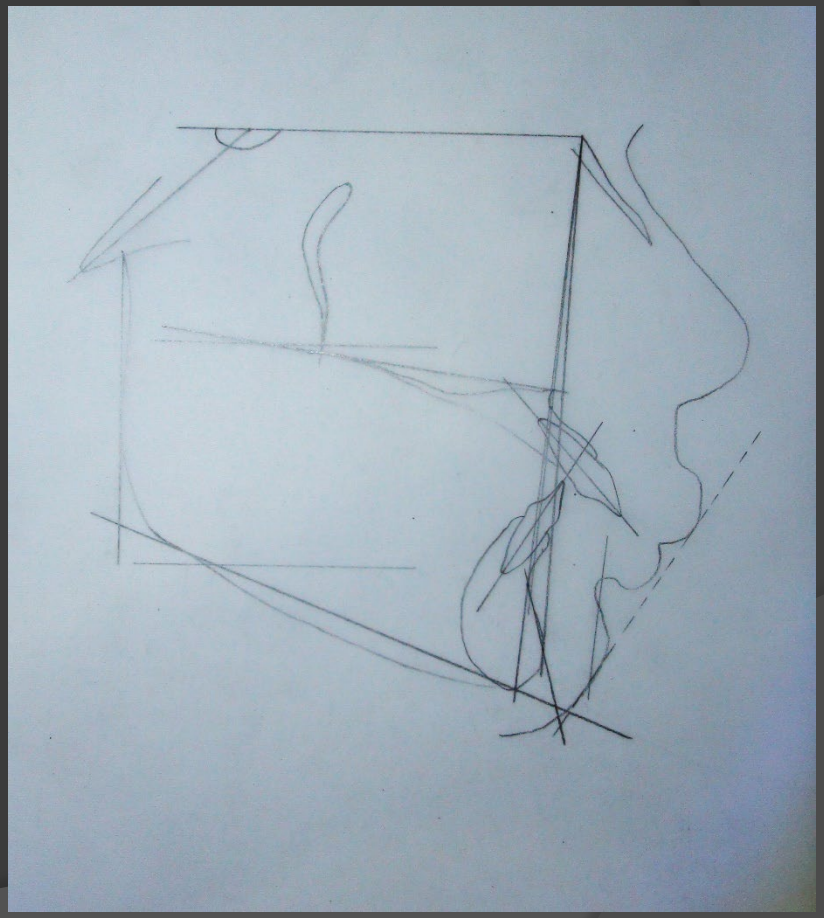
ROTATIONAL

Angle	SD	Interpret
NSBa	130°	Describes the Clivus inclination to cranial base
Gn-tgo-Ar	126°	The angle of Mandibular to Ramus
Nordeval	58°	Relationship of bony chin prominance to mandible

IF	Interpret
NSBa > 130°	Posterior rotation of mandible
NSBa < 130°	Anterior rotation of mandible
Gn-tgo-Ar > 126°	Posterior rotation of mandible
Gn-tgo-Ar < 126°	Anterior rotation of mandible
Nordeval > 58°	Retrognathic chin (Class II)
Nordeval < 58°	Prognathic chin (Class III)

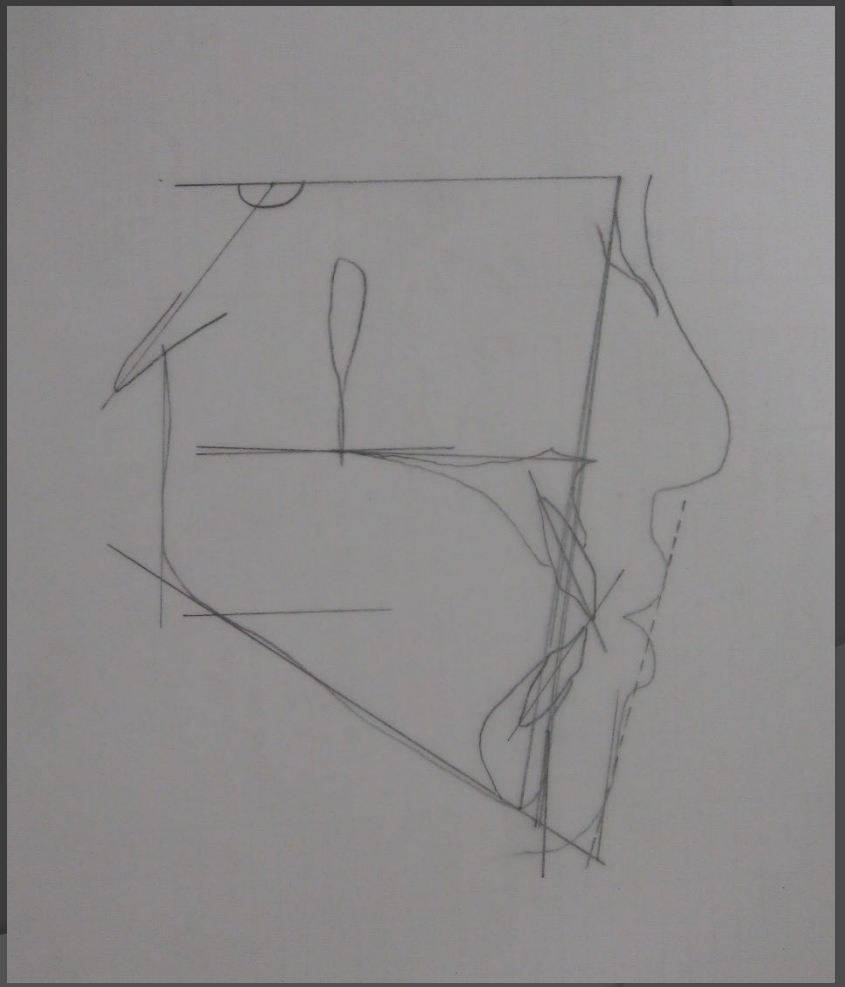
Sample Cases to try

CASE 1



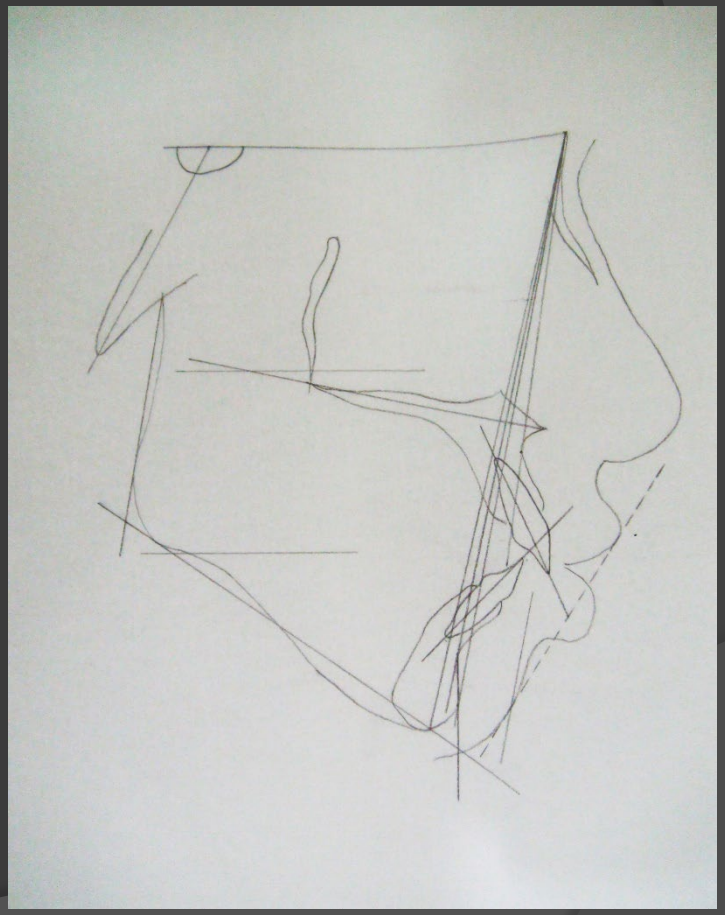
Sample Cases to try

CASE 2



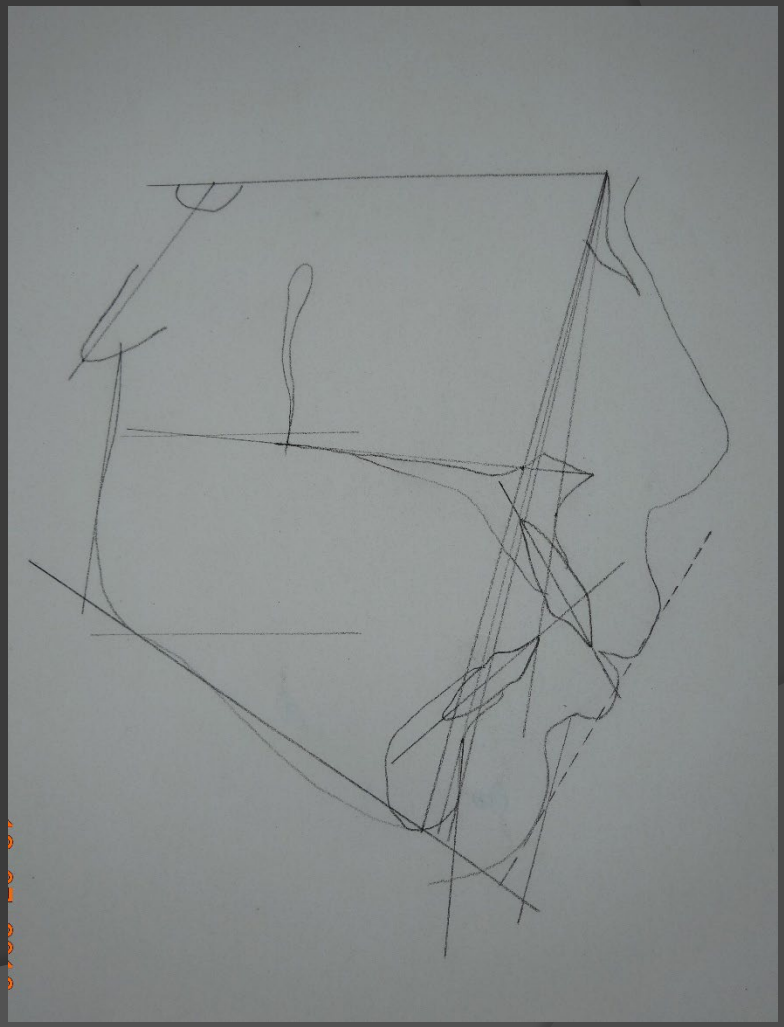
Sample Cases to try

CASE 3



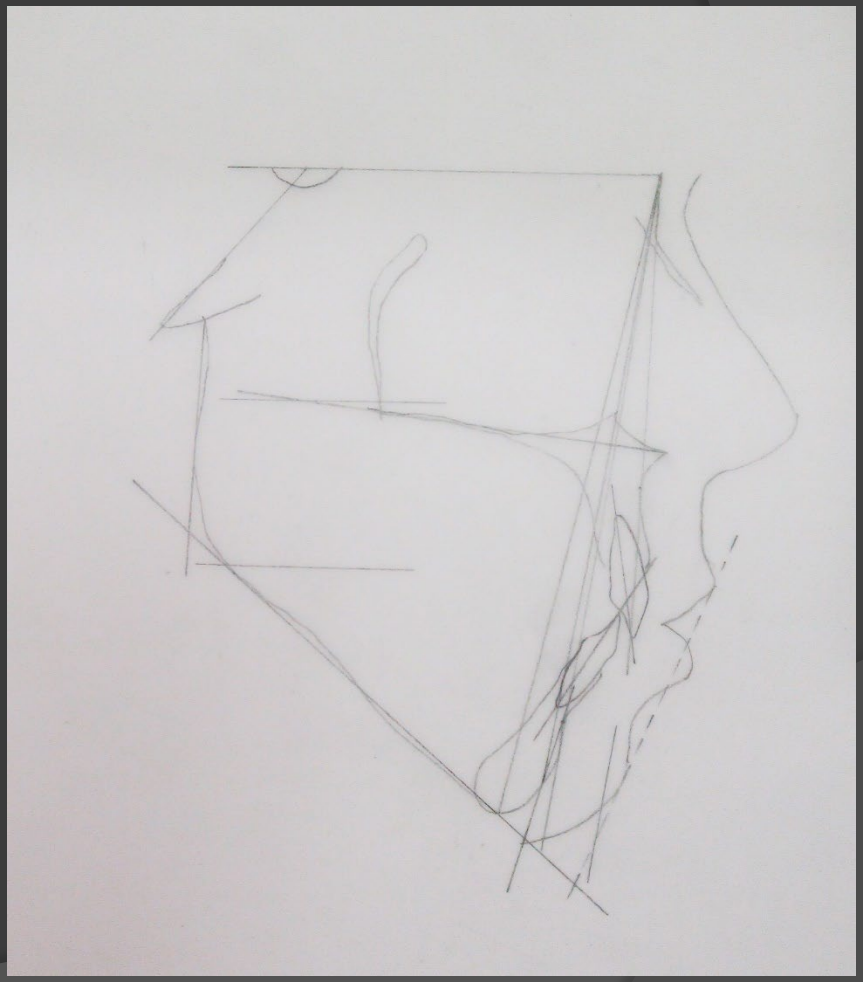
Sample Cases to try

CASE 4



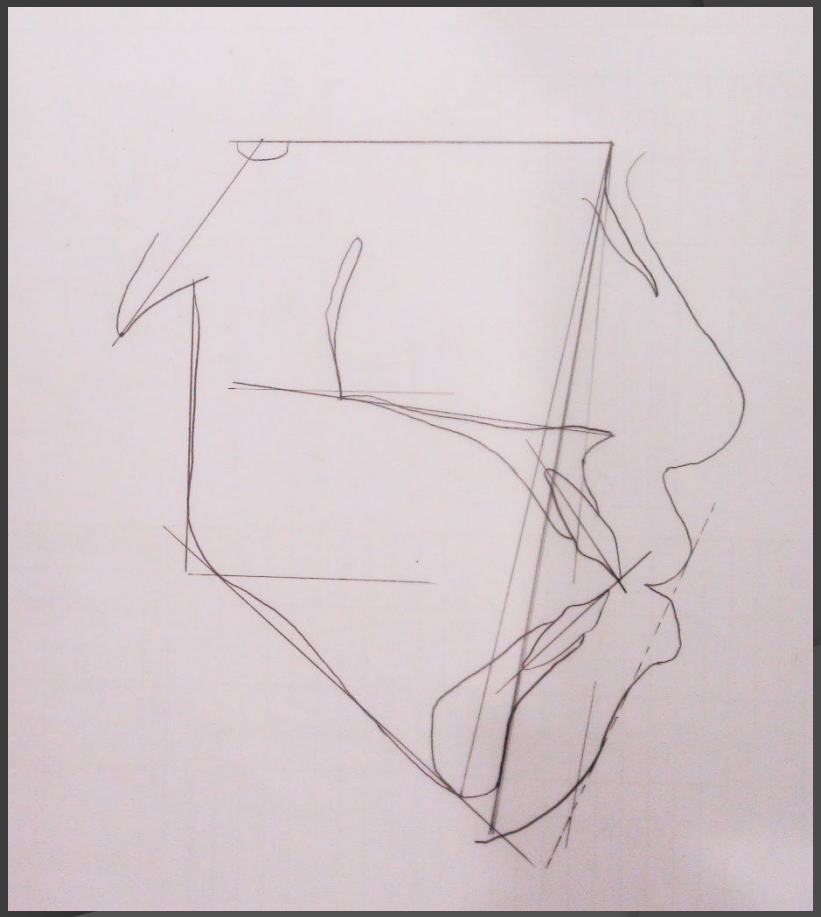
Sample Cases to try

CASE 5



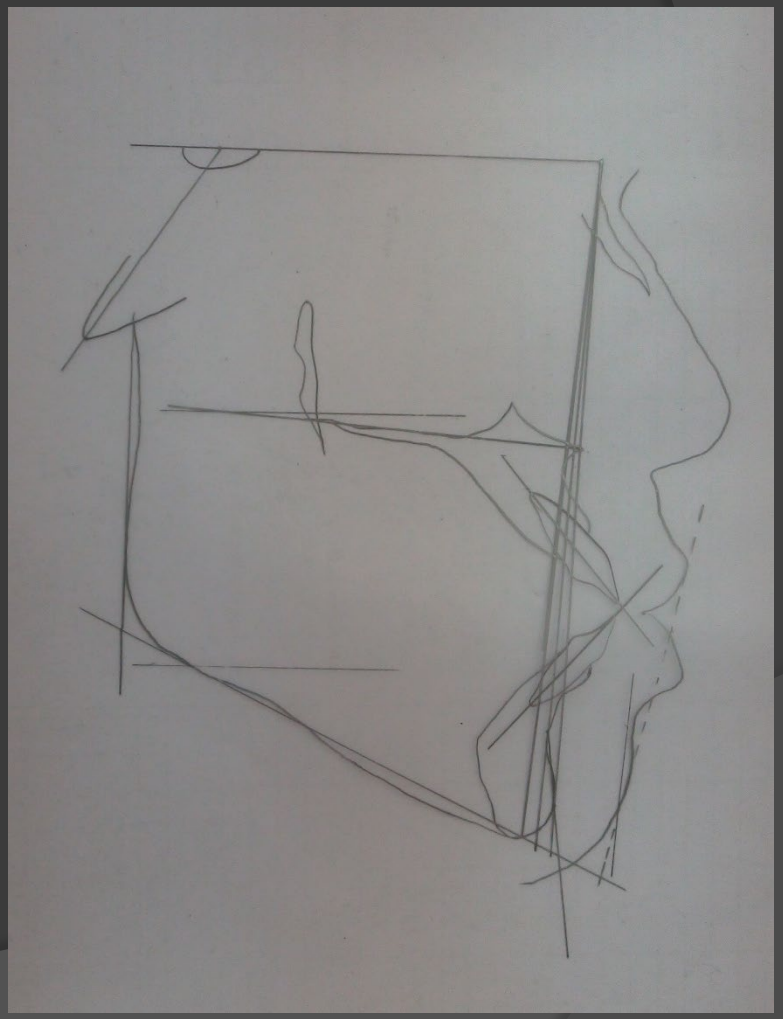
Sample Cases to try

CASE 6



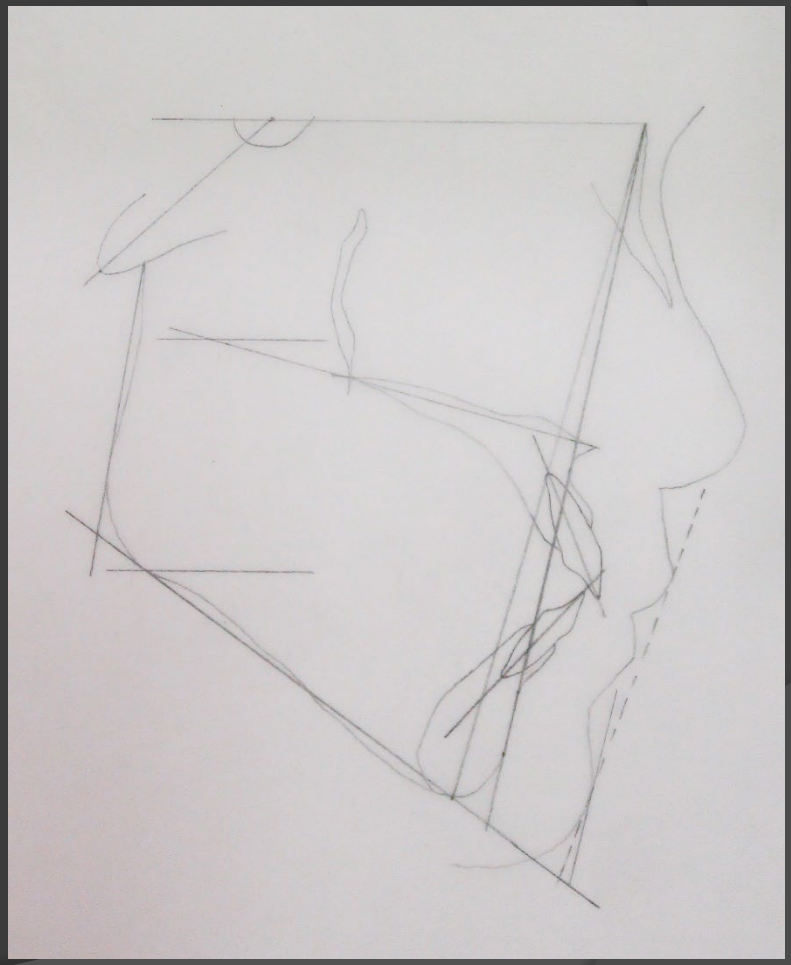
Sample Cases to try

CASE 7



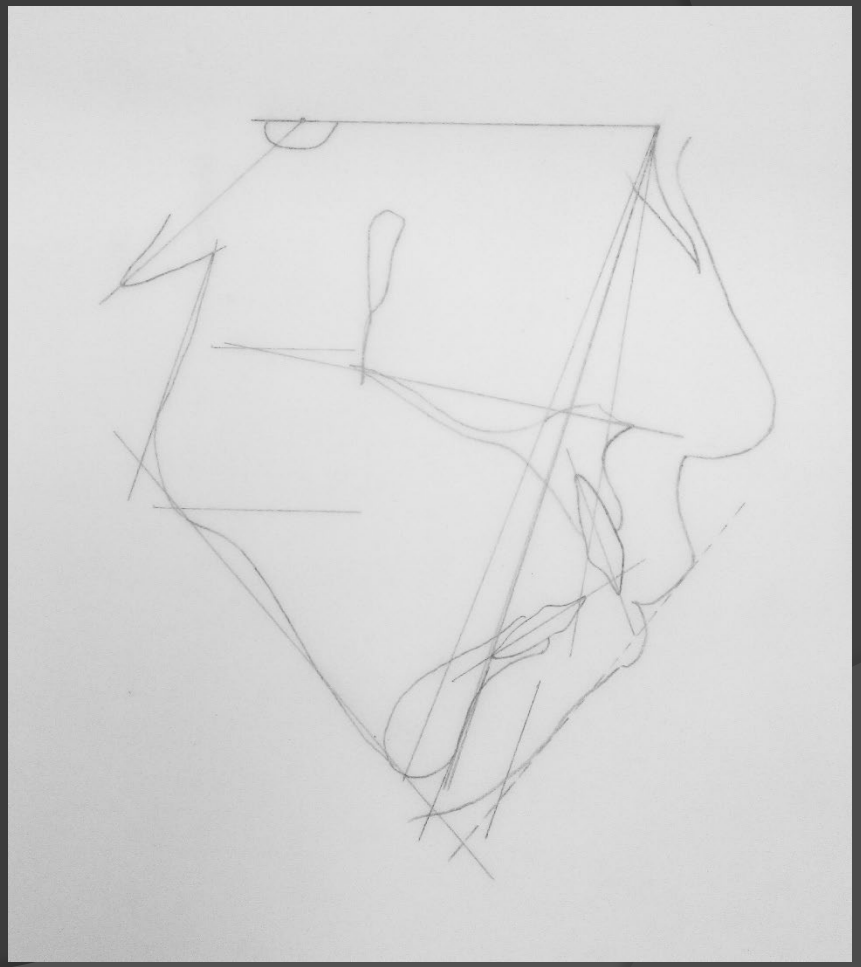
Sample Cases to try

CASE 8



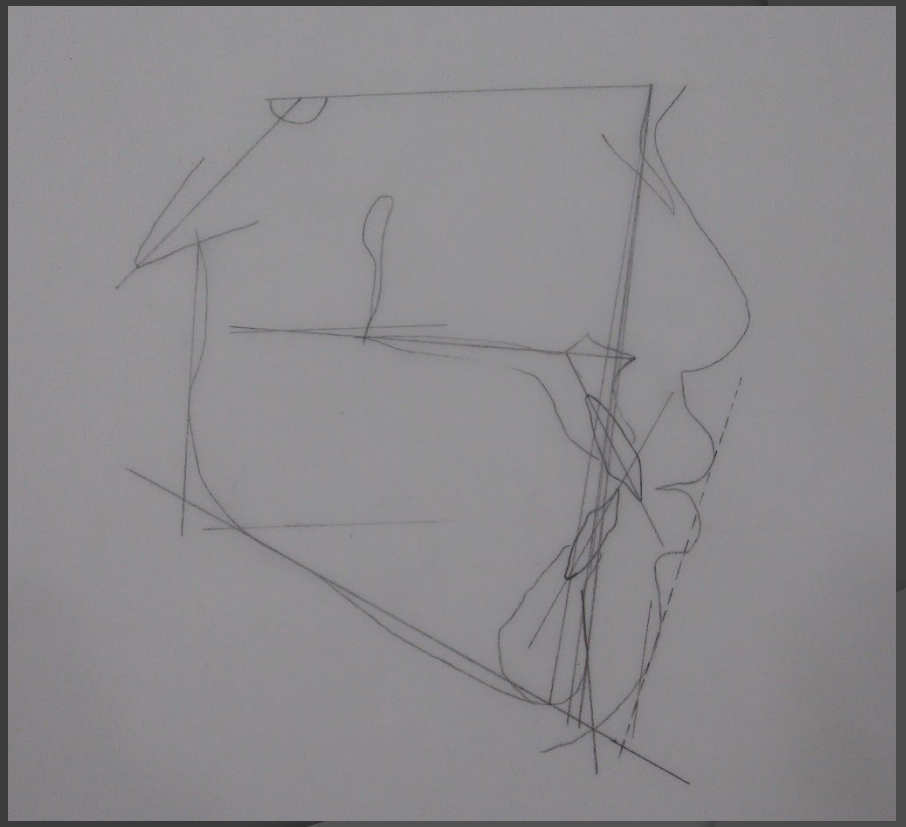
Sample Cases to try

CASE 9



Sample Cases to try

CASE 10



Benefit from the WinCeph App.

1. Saving time in Tracing the Ceph
2. Knowing all the concerned anatomical landmarks
3. Understanding all the value of the Lines and Angles


THANK YOU
FOR YOUR
ATTENTION