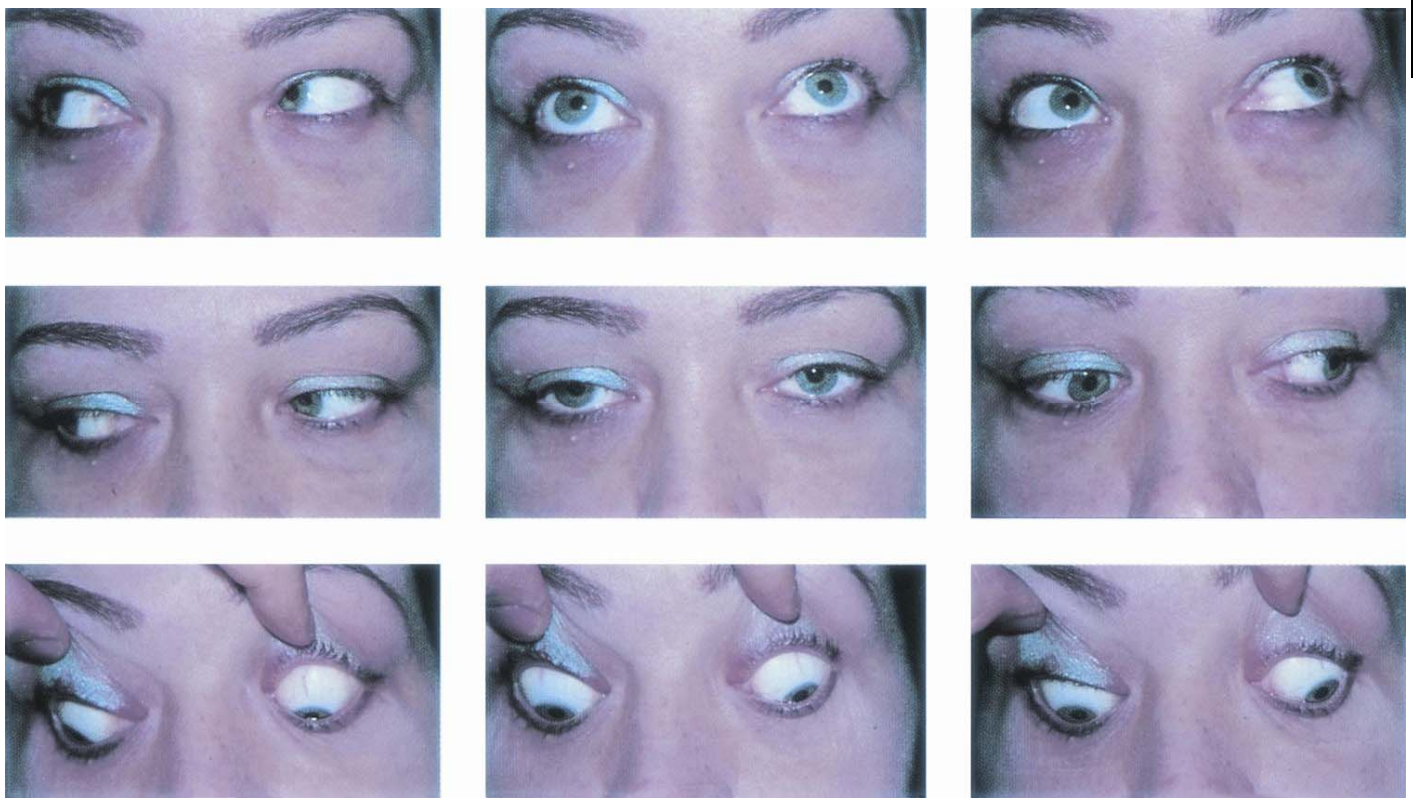
A/V Strabismus

Q

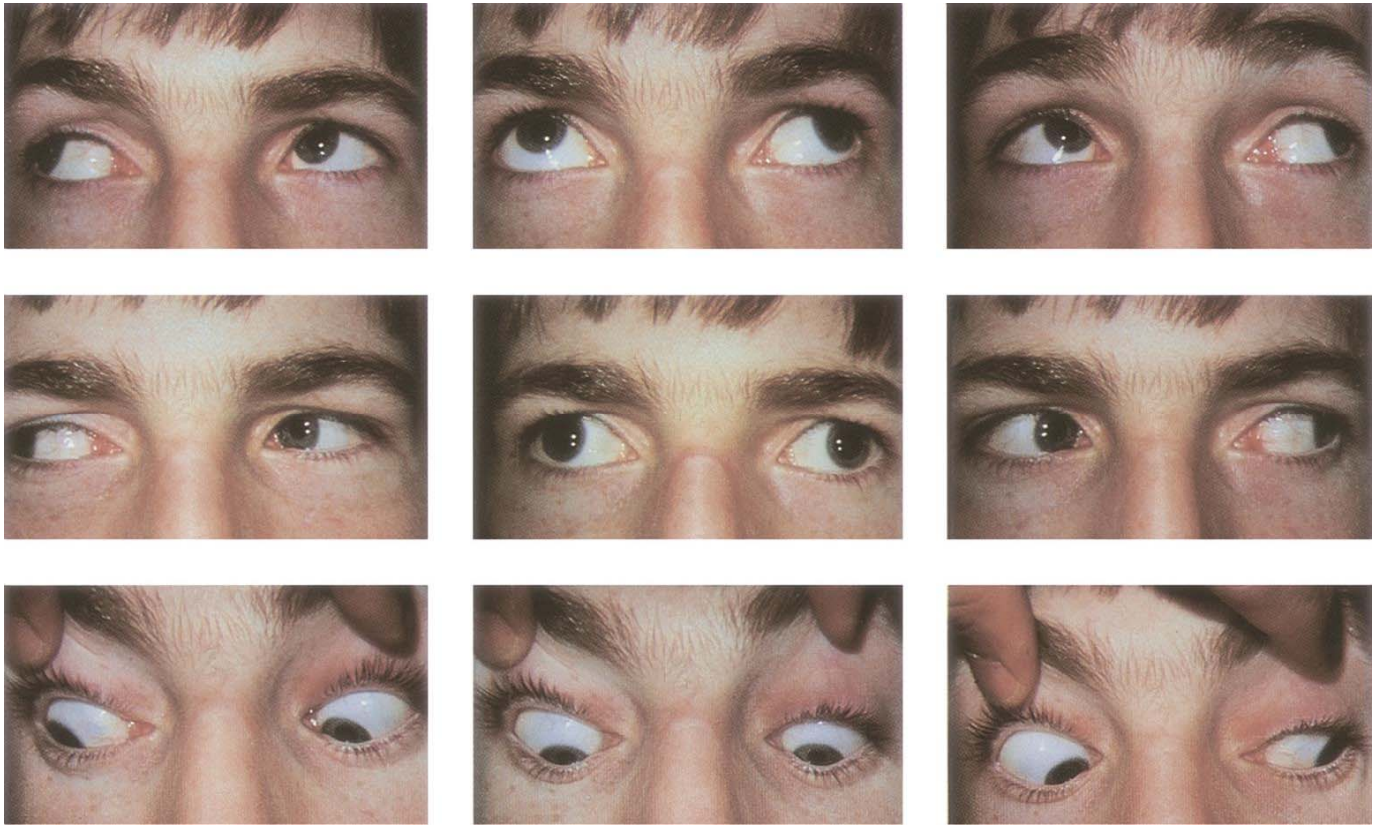
- An *A* or *V* pattern strabismus is simply one that

A/V Strabismus



A-pattern exotropia

A/V Strabismus



V-pattern exotropia

A/V Strabismus

A

- An *A* or *V* pattern strabismus is simply one that changes magnitude in up- and downgaze

A/V Strabismus

Q

- An *A* or *V* pattern strabismus is simply one that changes magnitude in up- and downgaze
  - Occurs in about % of strabismus cases

A/V Strabismus

A

- An *A* or *V* pattern strabismus is simply one that changes magnitude in up- and downgaze
  - Occurs in about 20% of strabismus cases

A/V Strabismus

Q

- An *A* or *V* pattern strabismus is simply one that changes magnitude in up- and downgaze
  - Occurs in about 20% of strabismus cases
- Can be secondary to:
  1) EOM problem dysfunction
  2) a different EOM problem dysfunction
  3) serious congenital problem w/ secondary EOM effects

A

- An *A* or *V* pattern strabismus is simply one that changes magnitude in up- and downgaze
  - Occurs in about 20% of strabismus cases
- Can be secondary to:
  1) Oblique dysfunction
  2) Horizontal or vertical rectus dysfunction
  3) Craniosynostosis

A/V Strabismus

Q

- An ***A* or *V* pattern** strabismus is simply one that changes magnitude in up- and downgaze

*Which pattern (*A *vs* V*) is associated with which oblique overaction?*
--SO overaction causes…
--IO overaction causes…

- Can be secondary to:
  1) Oblique dysfunction
  2) Horizontal or vertical rectus dysfunction
  3) Craniosynostosis

A/V Strabismus

A

- An ***A* or *V* pattern** strabismus is simply one that changes magnitude in up- and downgaze

*Which pattern (*A *vs* V*) is associated with which oblique overaction?*
--SO overaction causes…***A* pattern strabismus** *(A's are 'superior')*
--IO overaction causes…***V* pattern strabismus**

- Can be secondary to:
  1) Oblique dysfunction
  2) Horizontal or vertical rectus dysfunction
  3) Craniosynostosis

A/V Strabismus

Q

- An *A* or *V* pattern strabismus is simply one that changes magnitude in up- and downgaze
  - Occu
- Can be
  1) Obliq
  2) Horiz
  3) **Craniosynostosis**

To what does the term craniosynostosis *refer?*

A

A/V Strabismus

- An *A* or *V* pattern strabismus is simply one that changes magnitude in up- and downgaze
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To what does the term craniosynostosis *refer?*
To the premature closing of cranial suture(s)

A/V Strabismus

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To what does the term craniosynostosis *refer?*
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What results from premature suture closing?
Premature closure produces abnormal growth patterns of the skull and face. Depending upon which suture(s) closes prematurely, specific and well-recognized patterns of craniofacial malformation may result.

A/V Strabismus

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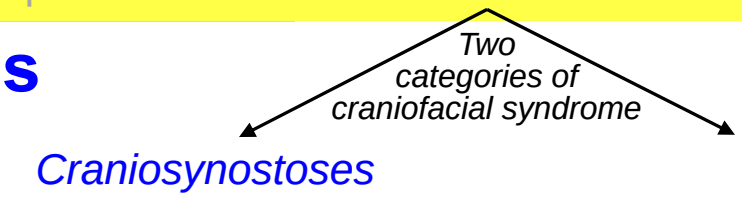

What is the other broad category of craniofacial syndrome?

A/V Strabismus

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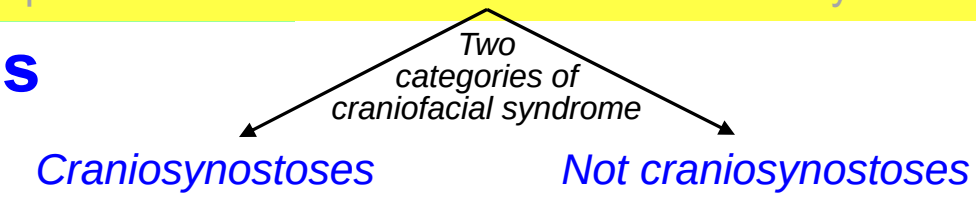

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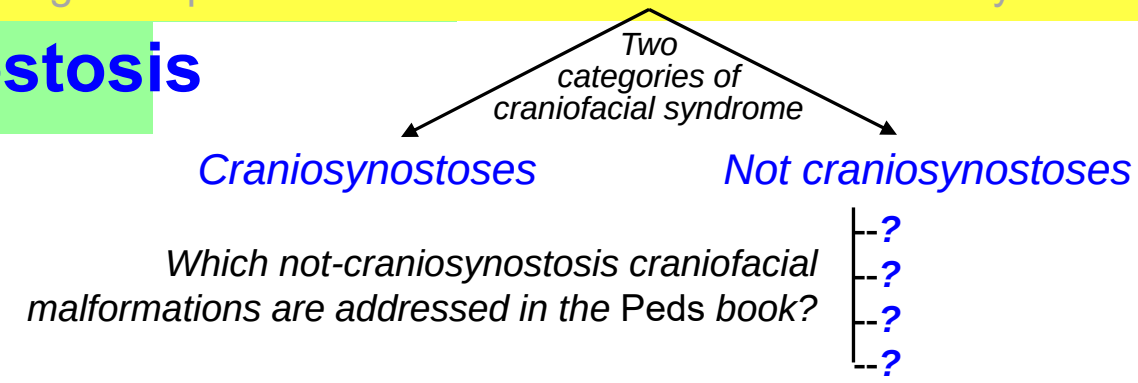

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Two categories of craniofacial syndrome

Craniosynostoses

Not craniosynostoses

Which not-craniosynostosis craniofacial malformations are addressed in the Peds *book?*

--Goldenhar
--Treacher Collins
--Pierre Robin sequence
--Fetal alcohol

A/V Strabismus

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Two categories of craniofacial syndrome

Craniosynostoses

Which craniosynostosis syndromes are addressed in the Peds *book?*

- --?
- --?
- --?
- --?

Not craniosynostoses

- --Goldenhar
- --Treacher Collins
- --Pierre Robin sequence
- --Fetal alcohol

A

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Two categories of craniofacial syndrome

Craniosynostoses
- --Crouzon
- --Apert
- --Pfeiffer
- --Saethre-Chotzen

Not craniosynostoses
- --Goldenhar
- --Treacher Collins
- --Pierre Robin sequence
- --Fetal alcohol

Which craniosynostosis syndromes are addressed in the Peds *book?*

A/V Strabismus

Q

- An *A* or *V* pattern strabismus is simply one that changes magnitude in up- and downgaze
  - Occurs in about 20% of strabismus cases
- Can be secondary to:
  1) Oblique dysfunction
  2) Horizontal or vertical rectus dysfunction
  3) **Craniosynostosis**

What strabismus pattern are craniosynostoses usually associated with?

A

A/V Strabismus

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What strabismus pattern are craniosynostoses usually associated with?
***V*-pattern XT**

A/V Strabismus

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What strabismus pattern are craniosynostoses usually associated with?
***V*-pattern XT**

What are the three most common craniosynostoses associated with V-pattern XT?
--
--
--

A/V Strabismus

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--Crouzon syndrome
--Apert syndrome
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A/V Strabismus

Q

All three craniosynostoses have similar facies. How can they be differentiated?

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  that ch
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A

A/V Strabismus

All three craniosynostoses have similar facies. How can they be differentiated?
Crouzon syndrome: Characteristic facies only

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What strabismus pattern are craniosynostoses usually associated with?
***V*-pattern XT**

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--**Crouzon syndrome**
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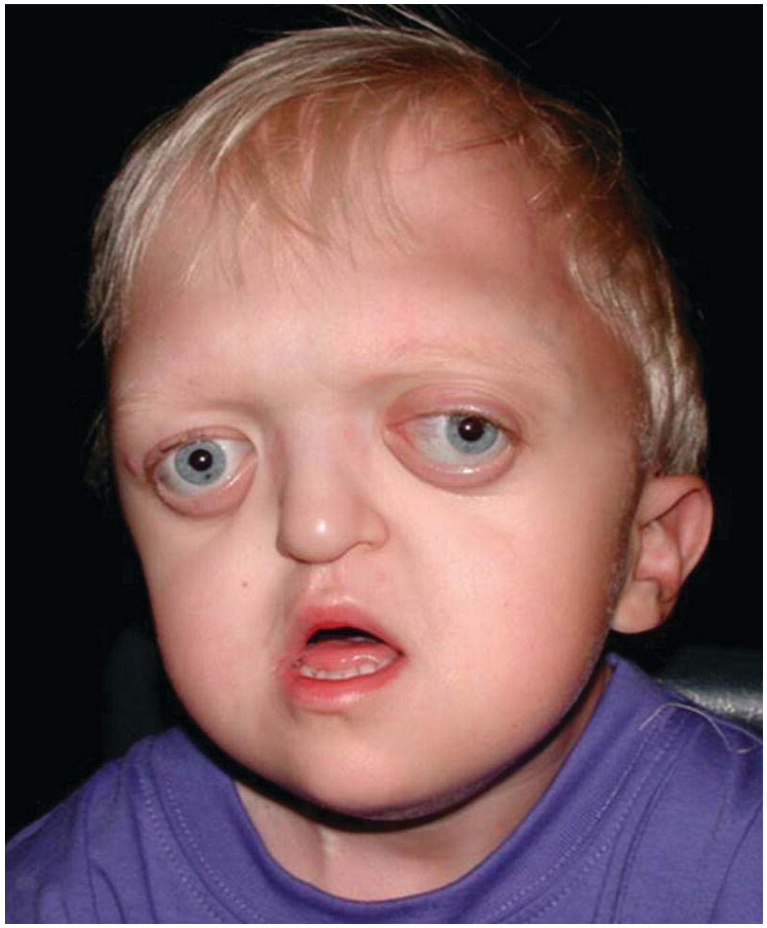

Crouzon syndrome: Characteristic facies

A/V Strabismus

Q

All three craniosynostoses have similar facies. How can they be differentiated?
Crouzon syndrome: Characteristic facies only
Apert syndrome: Facies +

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A

A/V Strabismus

All three craniosynostoses have similar facies. How can they be differentiated?
Crouzon syndrome: Characteristic facies only
Apert syndrome: Facies + **syndactyly of hands and feet**

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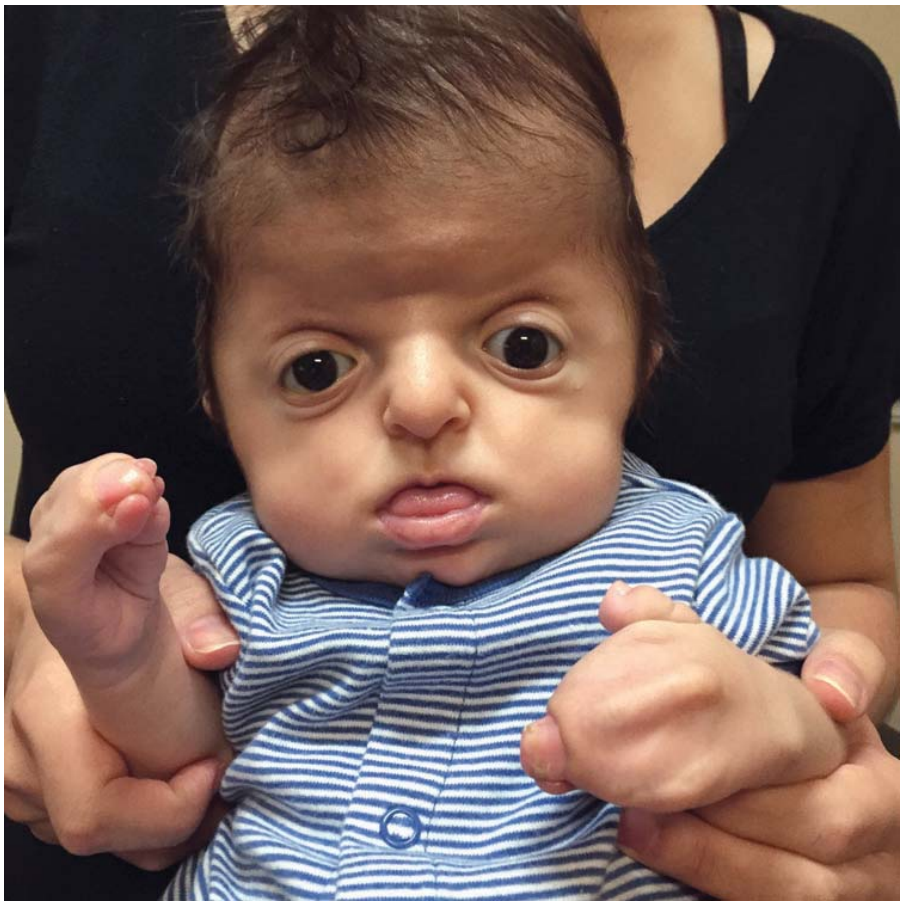

Apert syndrome: Characteristic facies and marked syndactyly

A

A/V Strabismus

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  that
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  1) Obliq
  2) Horizontal or vertical rectus dysfunction
  3) **Craniosynostosis**

All three craniosynostoses have similar facies. How can they be differentiated?
Crouzon syndrome: Characteristic facies only
Apert syndrome: Facies + **syndactyly of hands and feet**

Mnemonics:
'Patients with Apert syndrome can't get their fingers and toes **apert**' (apart)

What strabismus pattern are craniosynostoses usually associated with?
***V*-pattern XT**

What are the three most common craniosynostoses associated with V-pattern XT?
--Crouzon syndrome
--**Apert syndrome**
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A/V Strabismus

Q

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--Crouzon syndrome
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A

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All three craniosynostoses have similar facies. How can they be differentiated?
Crouzon syndrome: Characteristic facies only
Apert syndrome: Facies + **syndactyly of hands and feet**
Pfeiffer syndrome: Facies + **broad thumbs and broad big toes**

Mnemonics:
'Patients with Apert syndrome can't get their fingers and toes **apert**' (apart)

What strabismus pattern are craniosynostoses usually associated with?
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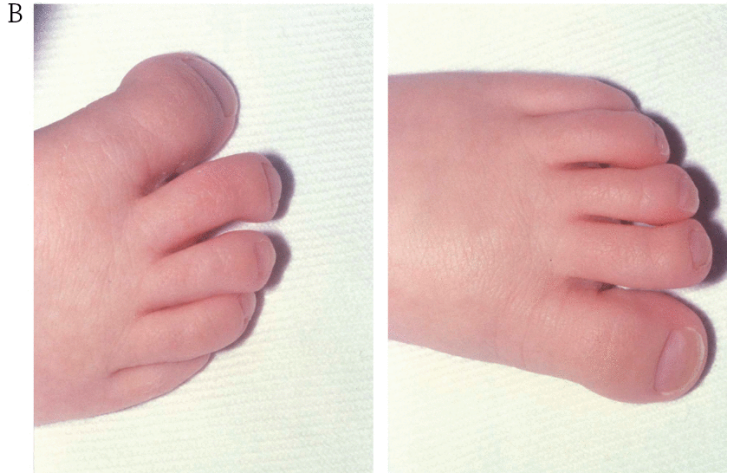

Pfeiffer syndrome: Characteristic facies, broad thumbs/great toes

A/V Strabismus

A

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  1) Obli
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Crouzon syndrome: Characteristic facies only
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Mnemonics:
'Patients with Apert syndrome can't get their fingers and toes **apert**' (apart)

'Michelle **Pfeiffer** has huge thumbs and toes' (not really)

What strabismus pattern are craniosynostoses usually associated with?
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What are the three most common craniosynostoses associated with V-pattern XT?
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cases

In addition to V-pattern XT, what other ocular abnormalities are often present in pts with craniosynostosis?
--
--
--
--
--

- gers and toes **apert**' (apart)

ction

3) **Craniosynostosis**

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In addition to V-pattern XT, what other ocular abnormalities are often present in pts with craniosynostosis?
--hypertelorism
--telecanthus
--shallow orbits
--extorsion of the orbits
--papilledema

ction

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- *In addition to V-patte*
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  --telecanthus
  --shallow orbits
  --extorsion of the orb
  --papilledema

What is the difference between hypertelorism *and* telecanthus*?*

t)

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  --extorsion of the orb
  --papilledema

What is the difference between hypertelorism *and* telecanthus*?*
Hypertelorism refers to an abnormally increased distance between the medial orbital walls; **telecanthus** refers to an abnormally increased distance between the medial canthi.

t)

3) **Craniosynostosis**

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Which manifests as an increased interpupillary distance?

t)

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Which manifests as an increased interpupillary distance?
Hypertelorism

t)

3) **Craniosynostosis**

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cases

- gers and toes **apert**' (apart)

In addition to V-pattern XT, what other ocular abnormalities are often present in pts with craniosynostosis?
--hypertelorism
--telecanthus
--shallow orbits
--extorsion of the orbit
--papilledema

What serious sequelae can result from shallow orbits?

ction

3) **Craniosynostosis**

What strabismus pattern are craniosynostoses usually associated with?
***V*-pattern XT**

What are the three most common craniosynostoses associated with V-pattern XT?
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cases

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In addition to V-pattern XT, what other ocular abnormalities are often present in pts with craniosynostosis?
--hypertelorism
--telecanthus
--shallow orbits
--extorsion of the orbit
--papilledema

What serious sequelae can result from shallow orbits?
Shallow orbits produce proptosis, which may lead to **exposure keratopathy**

ction

3) Craniosynostosis

What strabismus pattern are craniosynostoses usually associated with?
***V*-pattern XT**

What are the three most common craniosynostoses associated with V-pattern XT?
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A/V Strabismus

Q

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- 3) **Craniosynosto**

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In addition to V-pattern XT, what other ocular abnormalities are often present in pts with craniosynostosis?
--hypertelorism
--telecanthus
--shallow orbits
--extorsion of the orbits
--papilledema

What are the sequelae of orbital extorsion?

What strabismus pattern are craniosynostoses usually associated with?
***V*-pattern XT**

What are the three most common craniosynostoses associated with V-pattern XT?
--Crouzon syndrome
--Apert syndrome
--Pfeiffer syndrome

A

A/V Strabismus

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All three craniosynostoses have similar facies. How can they be differentiated?
Crouzon syndrome: Characteristic facies
Apert syndrome: Facies + **syndactyly of hands and feet**
Pfeiffer syndrome: Facies + **broad thumbs and broad big toes**

cases

- *In addition to V-pattern XT, what other ocular abnormalities are often present in pts with craniosynostosis?*
  --hypertelorism
  --telecanthus
  --shallow orbits
  --extorsion of the orbits
  --papilledema

gers and toes **apert**' (apart)

What are the sequelae of orbital extorsion?
The location of the rectus muscles are extorted as well. For example, the medial recti are located in the superonasal orbit. Thus, when the eyes adduct they also elevate, giving the impression of IO overaction (called *pseudo-IO overaction*). Orbital extorsion contributes to the overall *V*-pattern XT.

3) **Craniosynosto**

What strabismus pattern are craniosynostoses usually associated with?
***V*-pattern XT**

What are the three most common craniosynostoses associated with V-pattern XT?
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A/V Strabismus

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A-pattern strabismus is associated with another congenital condition involving abnormal closure of the skeleton housing the CNS—what is that condition?

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Spina bifida

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A/V Strabismus

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- An *A* or *V* pattern strabismus is simply one that changes magnitude in up- and downgaze
  - Occurs in about 20% of strabismus cases
- Can be secondary to:

Management of A/V pattern strabismus

--Correct EOM overaction if present

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--Focus on [ ] and [ ] positions

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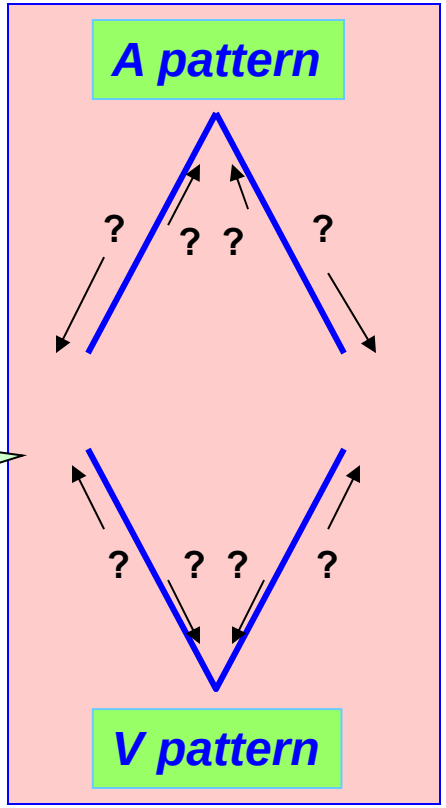
Transpose the ***M***

A

L

E



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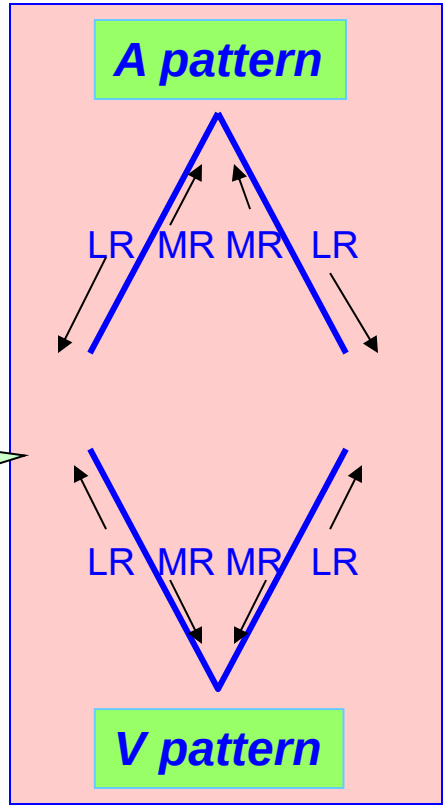
Transpose the ***M***edial recti toward the
Apex, and the
Lateral recti toward the
Empty space



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--Plan and correct the horizontal deviation **independently**