

AMPUTATIONS IN CHILDREN

Part -1

Freih Odeh Abu Hassan
F.R.C.S(Eng), F.R.C.S(Tr. & Orth.)

Professor of Orthopedics
Jordan University Hospital - Amman

Professor Freih Abuhassan -
University of Jordan

AMPUTATIONS IN CHILDREN

1-Congenital
2-Acquired
Trauma
Tumour
Infection

Congenital amputation

Absence of a fetal limb or fetal part at birth.

*** Amniotic band synd.**

*** Faulty gene 30%**

*** Environmental**

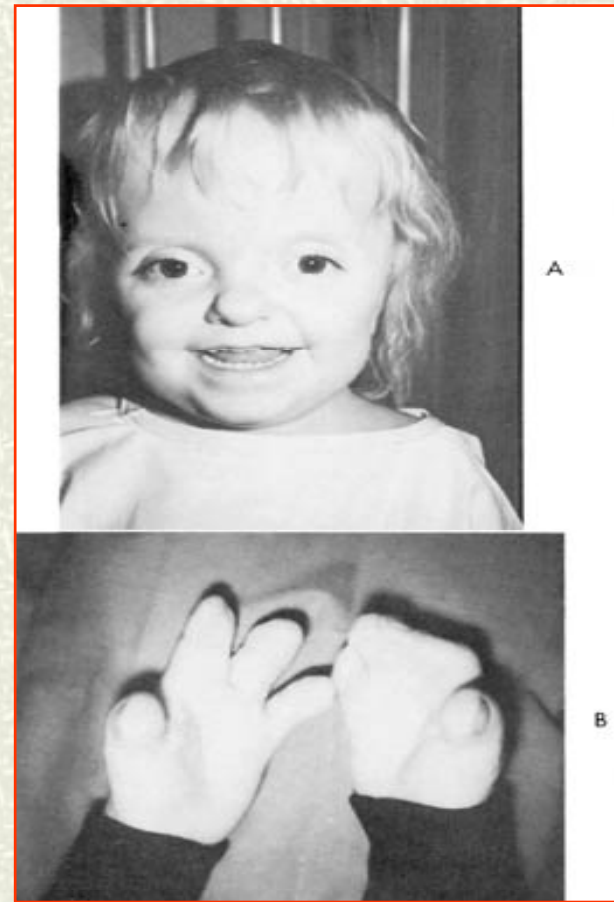
(Teratogenic agents)

*** Syndromatic**

*** Unknown 60%**

1-Thalidomide tragedy - 1960s

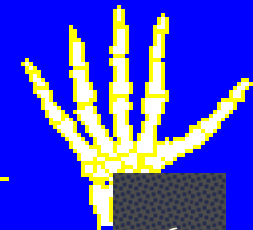
2-Chernobyl disaster in Russia



Classification

Swanson A.B. JHS vol.1 no.1 p8-22

- I Failure of formation of parts
- II Failure of Differentiation
- III Duplication
- IV Overgrowth
- V Undergrowth
- VI Congenital constriction band syndrome
- VII Generalised skeletal abnormality



Congenital

Failure of formation

- **Amelia, Phocomelia**
- **Transverse arrest**
- **Longitudinal arrest**
- **Central arrest**

Amelia

Complete absence of a limb beyond a certain point → leaving a stump.

Phocomelia

only a mid-portion of a limb is missing, as when the hands or feet are attached directly to the trunk.



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Failure of formation

Thalidomide syndrome

Phocomelia

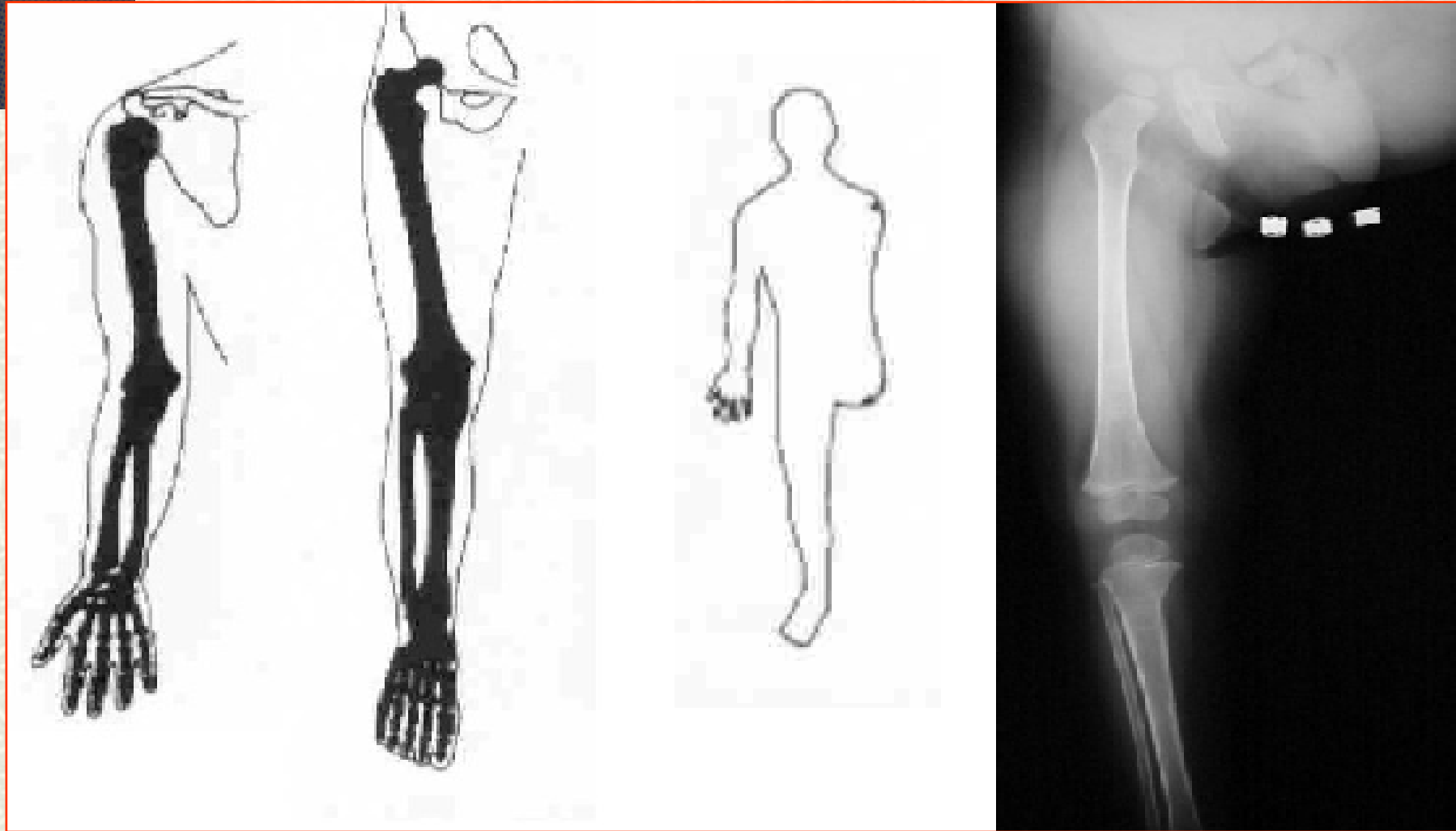


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Amelia



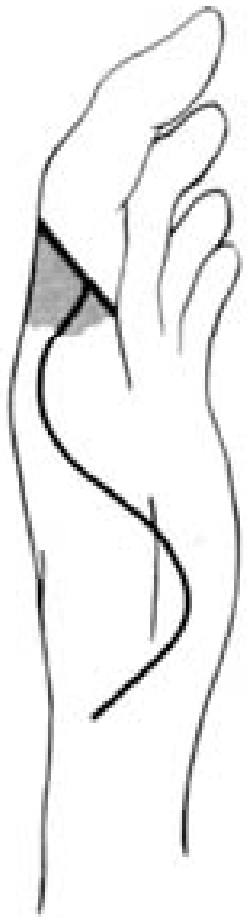


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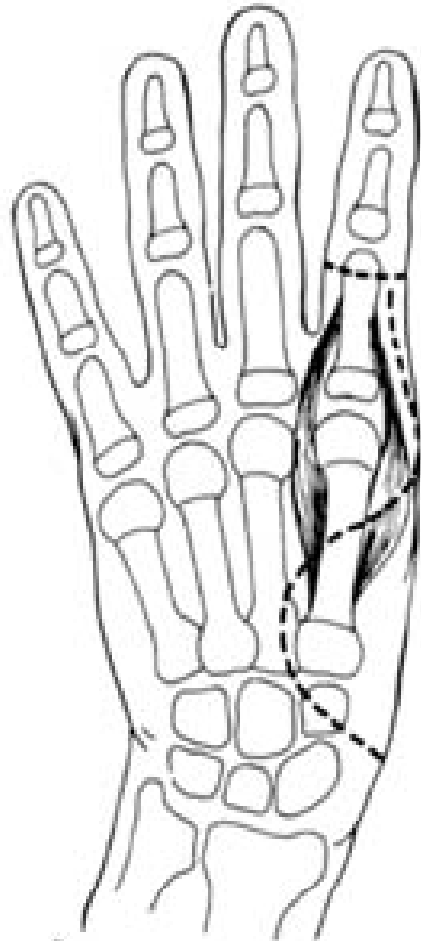
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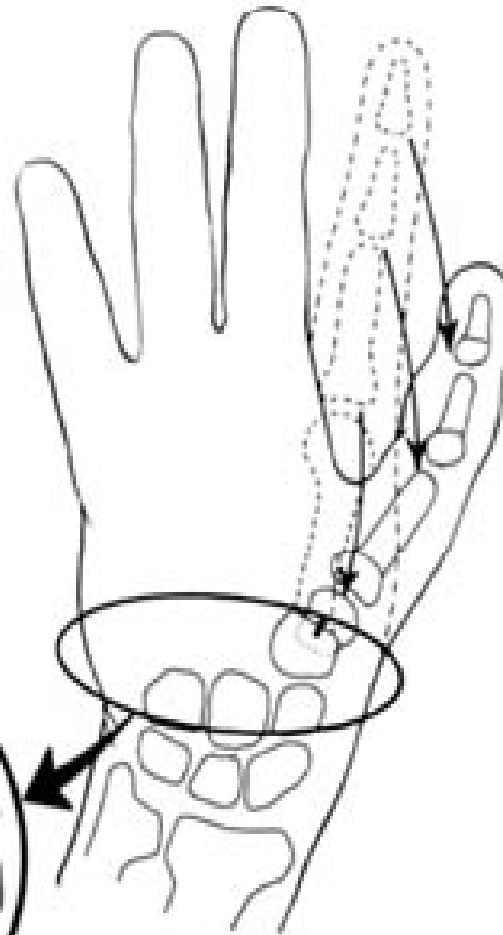
Amelia



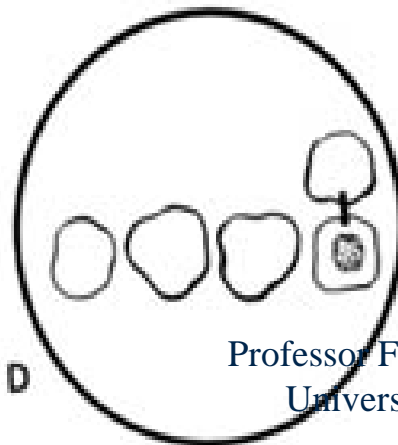
A



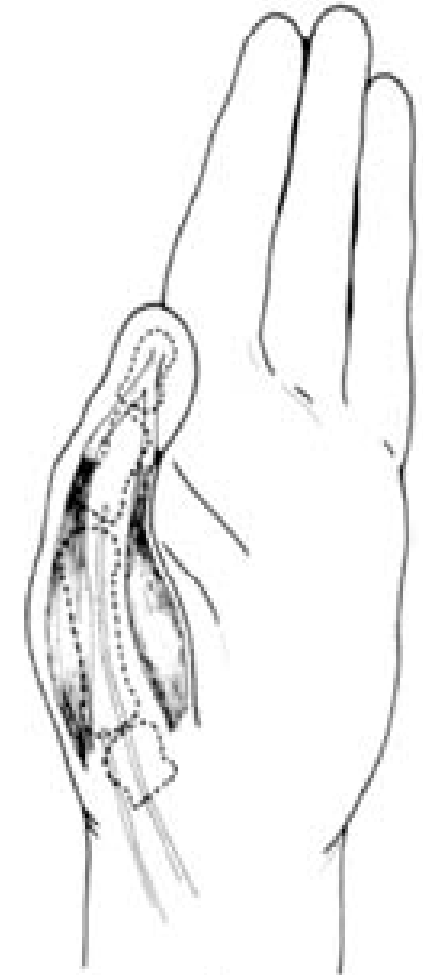
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C



D



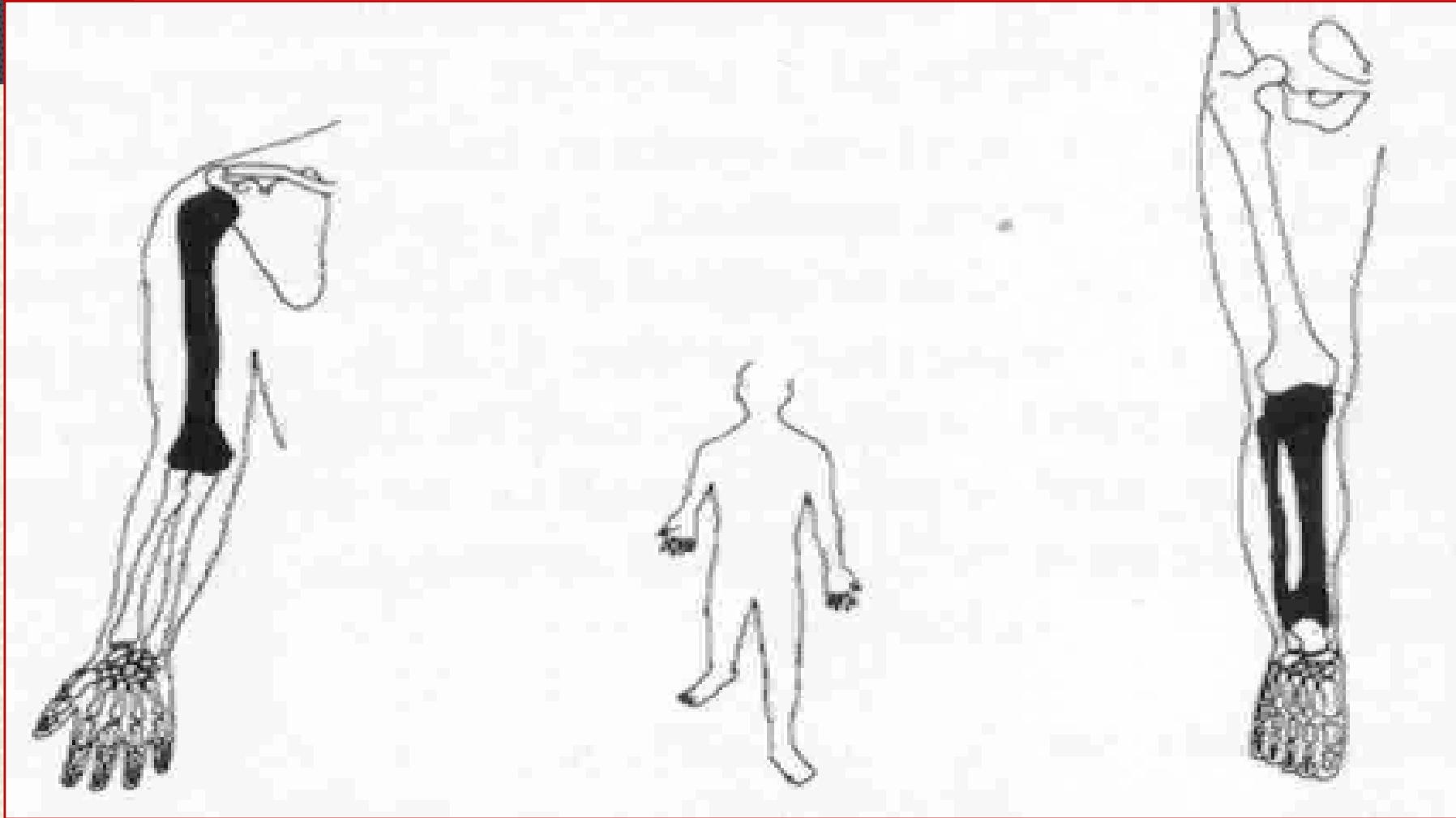
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Phocomelia





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Failure of formation

Proximal Focal Femoral Def.

(PFFD)

=Deficiency of prox. end of femur

=Flexion, abduction exter. rotation



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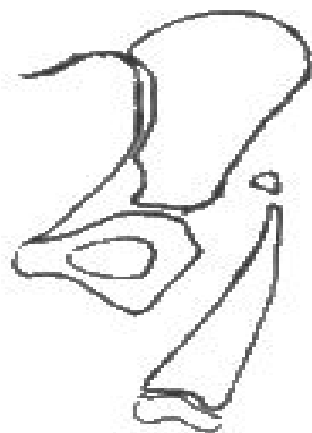
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Type A



Type B



Type C



Type D





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Figure 15. (A) Patient with rotationplasty. Note that the foot is turned 180 degrees in relation to the femur. (B, C) Rotationplasty prosthesis. Note that the ankle functions as a knee joint. The patient functions as a below-the-knee amputee with the foot below the knee stump.

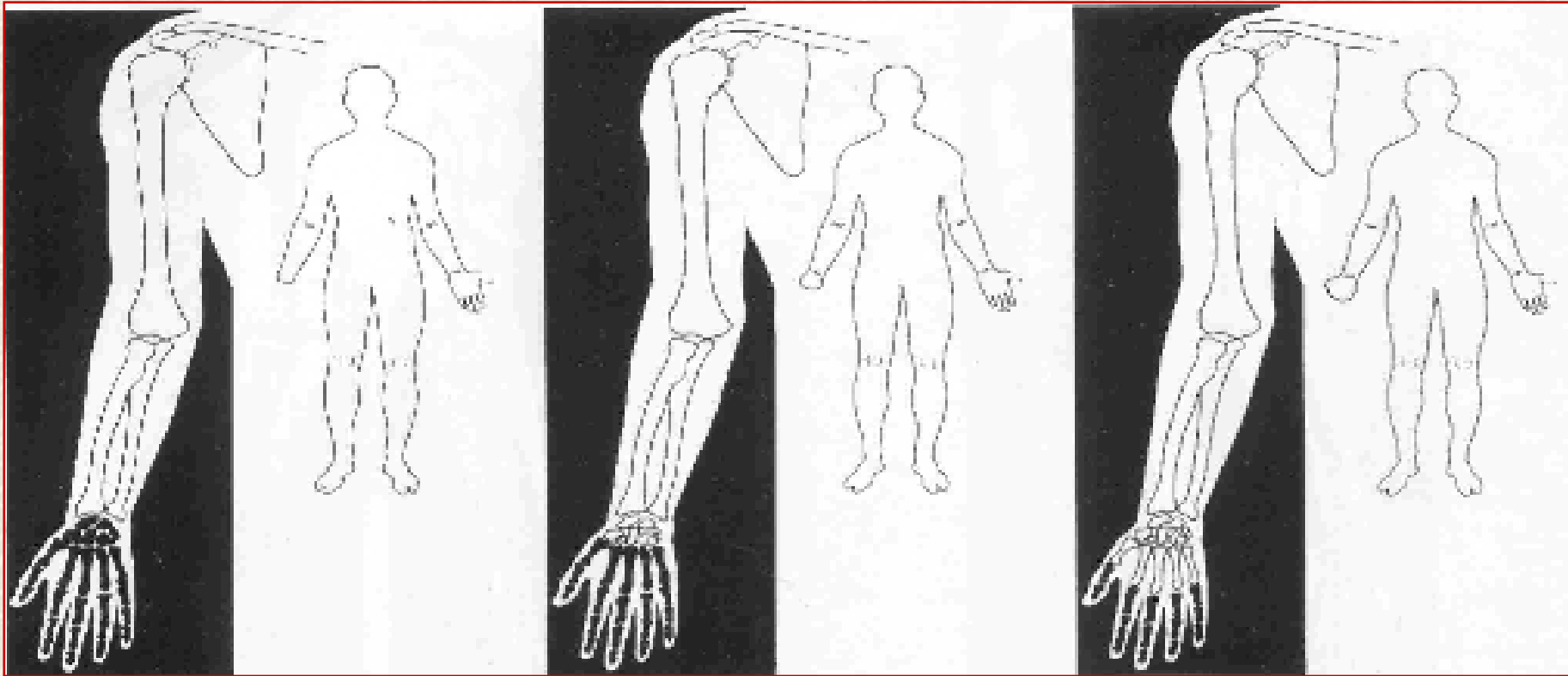


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Failure of formation

Transverse arrest





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Transvere arrest

- * 3-6m: Static prosthesis
- * 18 m : Splitt Hook prosthesis
- * 3-5 Y: Myoelectrical prosthesis
- * ? Krukenberg in blind child

Terminal BEA

MISSING ONE
HAND



- most common Cong.Amput.
- use of a passive device at 3-6 m.
(fit when they sit)

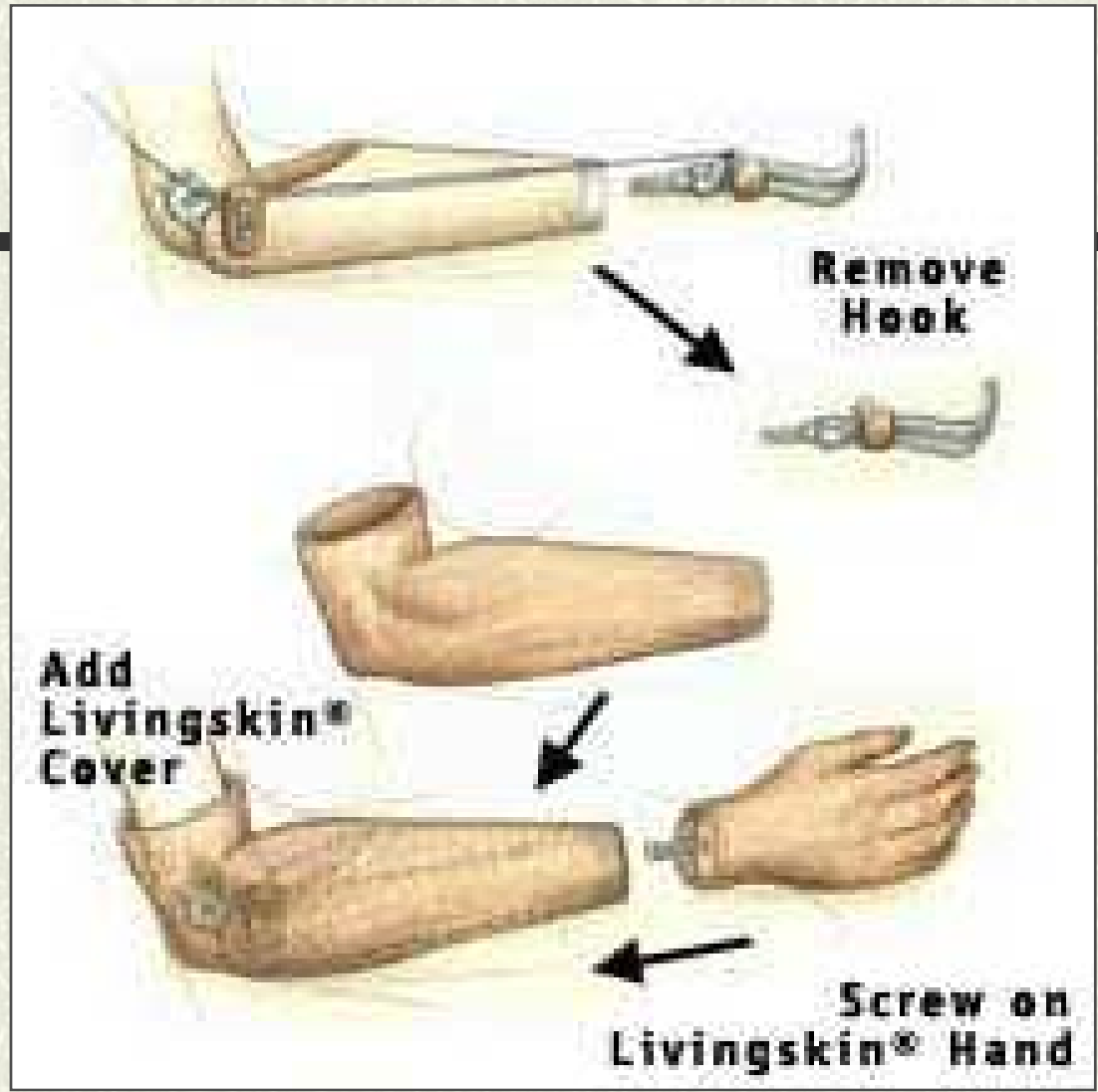
**MISSING BOTH
HANDS**
(any age)



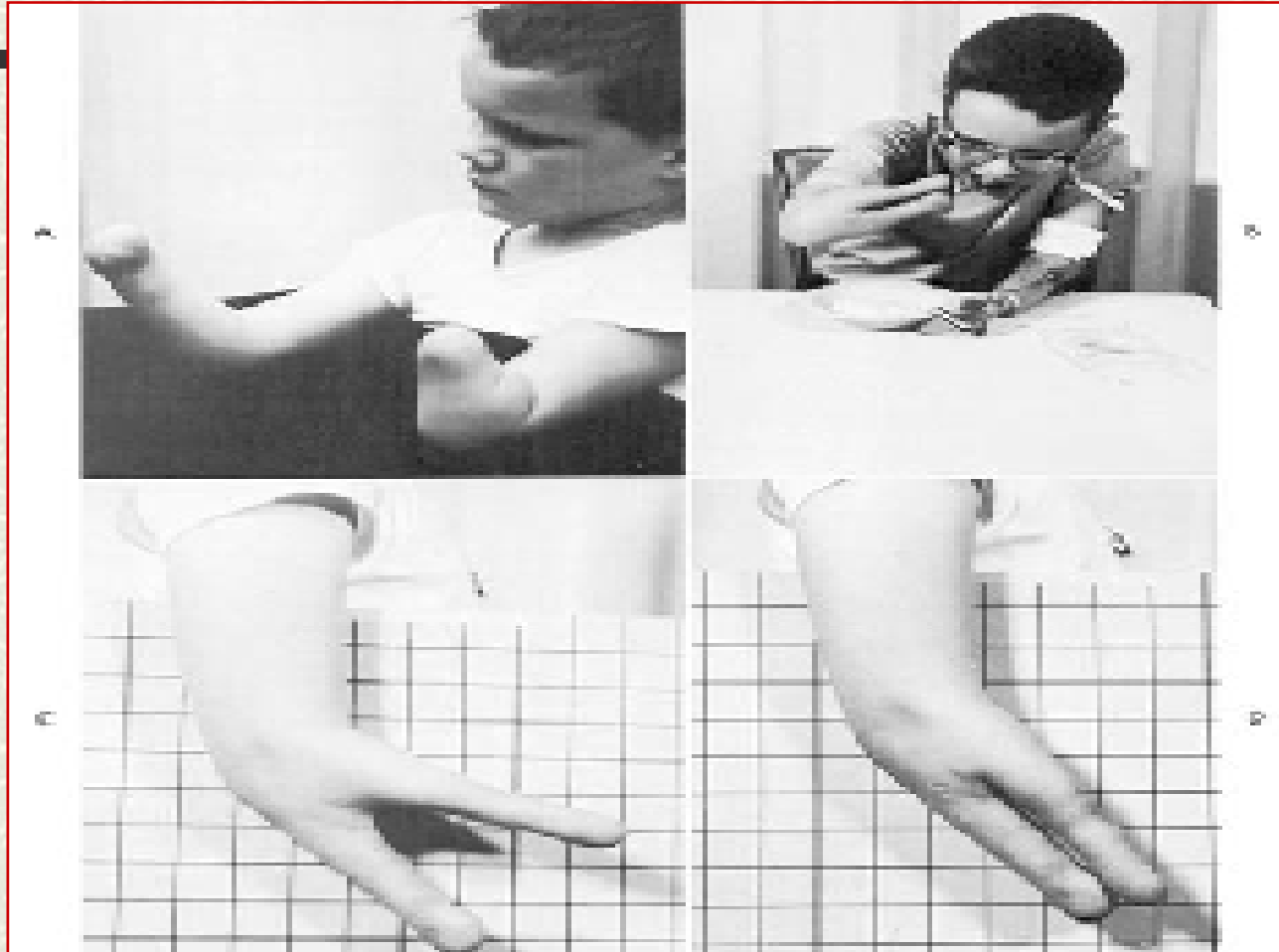
He will probably want & accept hooks, or whatever can help him hold things better.

>18M

A child with high arm amp. from birth often learns to use his feet almost as well as his hands.



Krukenberg in blind child





Myoelectrical prosthesis, > 3Y

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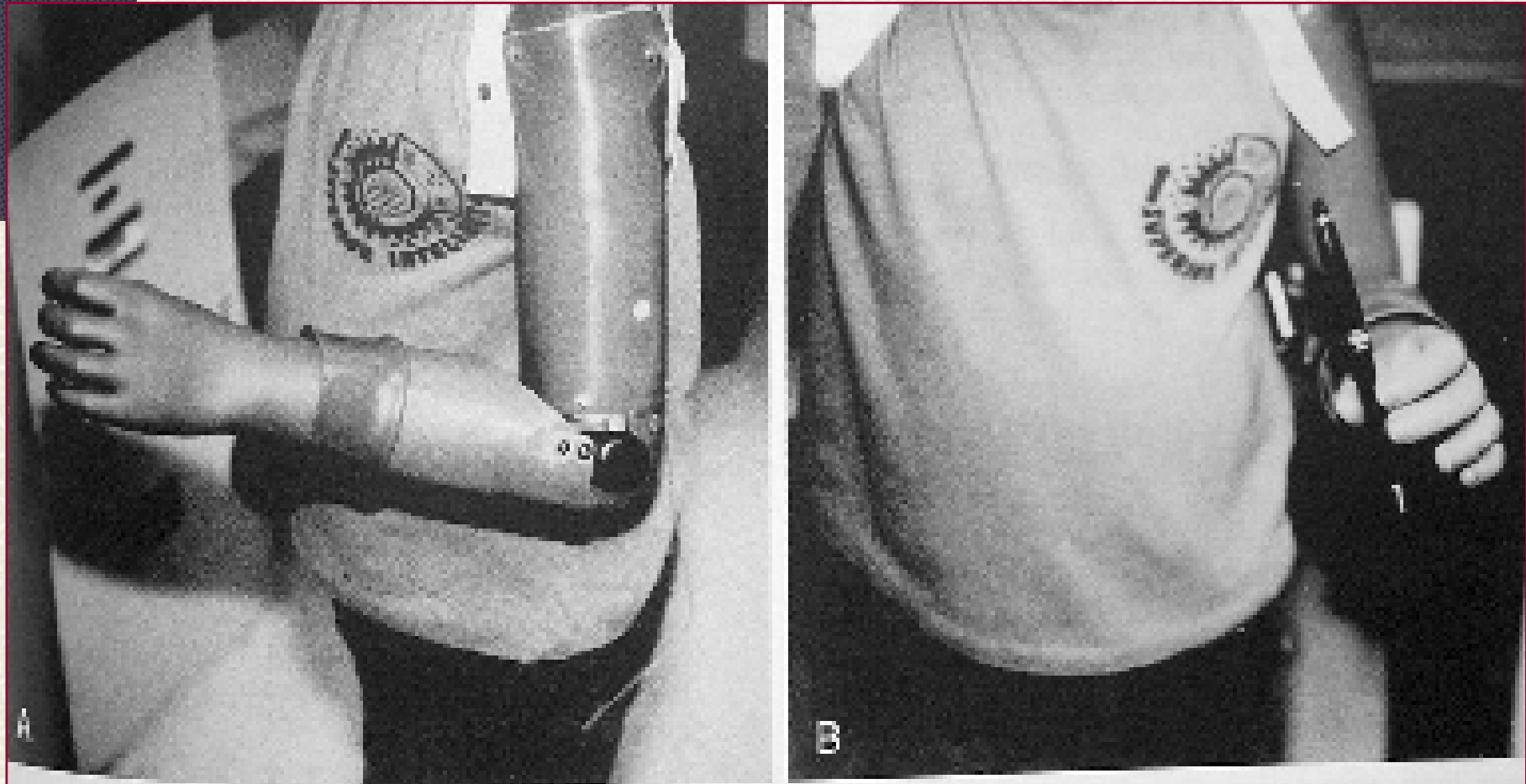


Figure 17. (A, B) Patient with an above-elbow myoelectric prosthesis.

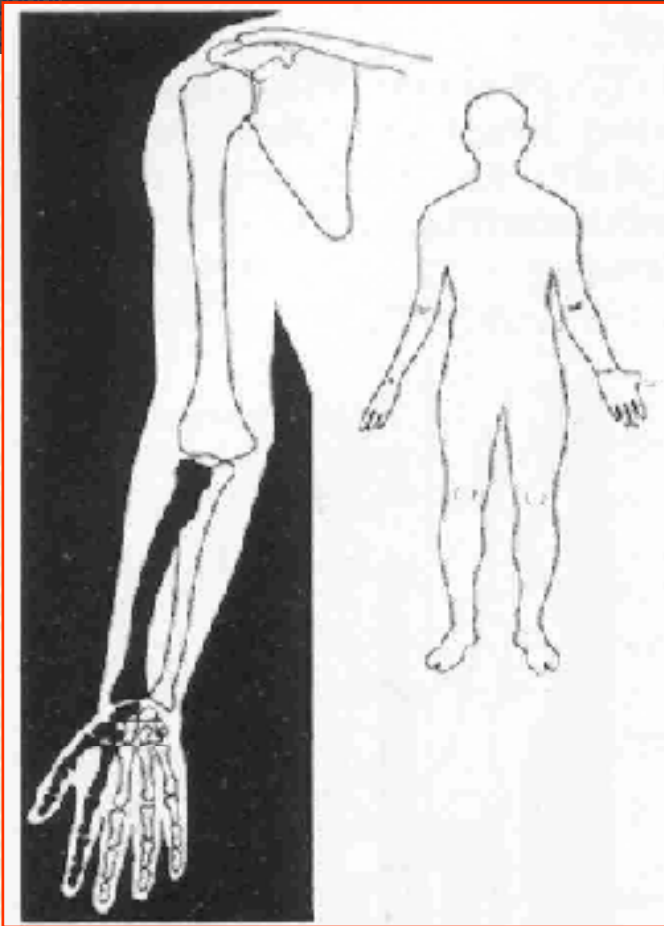
Failure of formation

Longitudinal arrest



Bilat. Fibular hemimelia underwent Chopart amp. And prosthesis

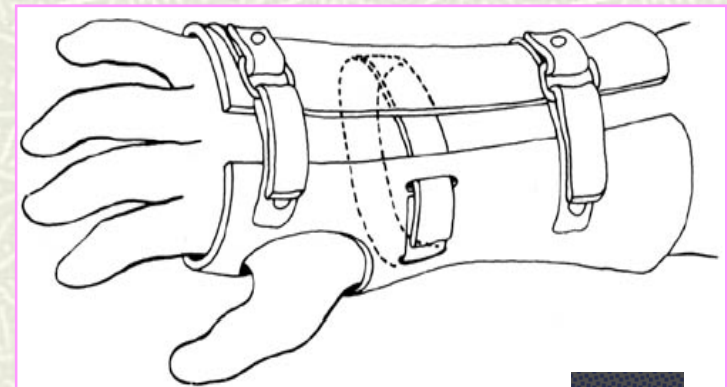
Longitudinal arrest



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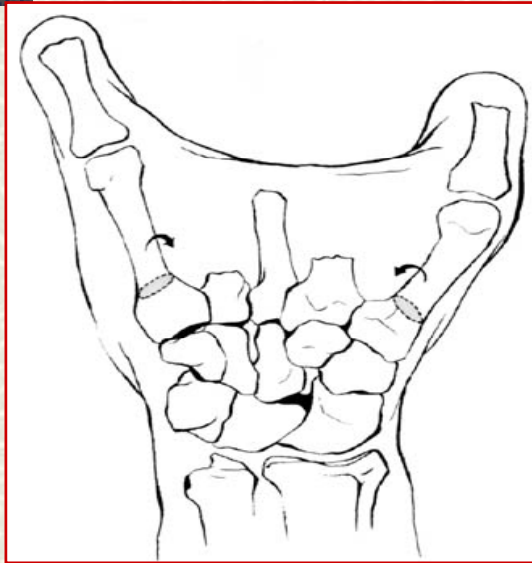
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Failure of formation

Central arrest



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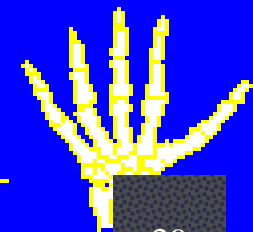
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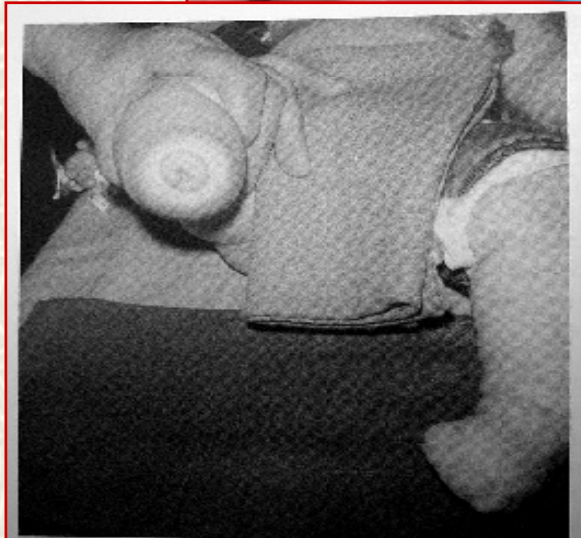
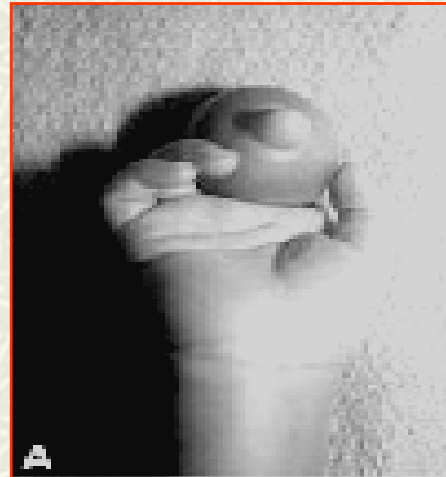
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VI: Congenital constriction band syndrome

- Focal area of necrosis
- Annular band forms as a result
- May result in intrauterine gangrene or amputation
- Associated with syndactyly
- Aetiology controversial
 - Extrinsic or Intrinsic



Constriction band syndrome



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