

# Treatment of the hook- nail deformity

## Vascularized nail flaps

Christian Dumontier

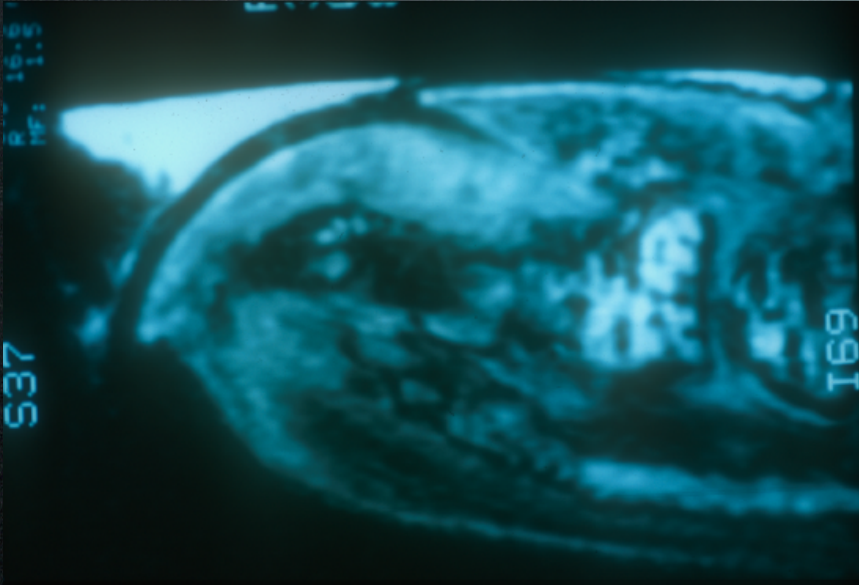
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(with help of P. Valenti)



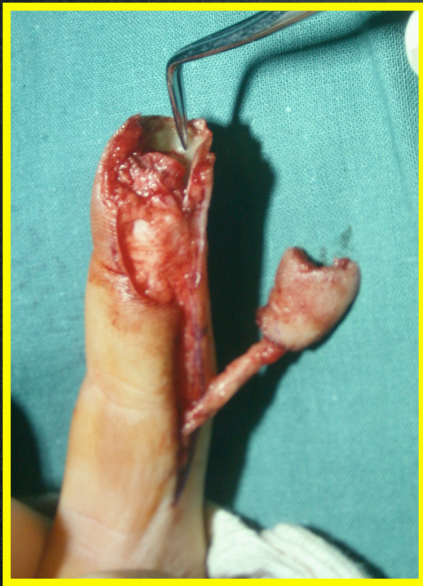


# HOOK NAIL



Nail deformity due to the curvature of the nail bed after either bone loss or pulp destruction or retraction





Prevention of hook-nail deformity necessitates the reconstruction of the nail plate supportive structures





THE ONLY POSSIBLE TREATMENT IS

SURGICAL



# Many techniques

- Nail flap recession : Dufourmentel
- Nail support with cross-finger flap: Atasoy
- Island flap : Gilbert , Tubiana
- Microvascular reconstruction : Morrison

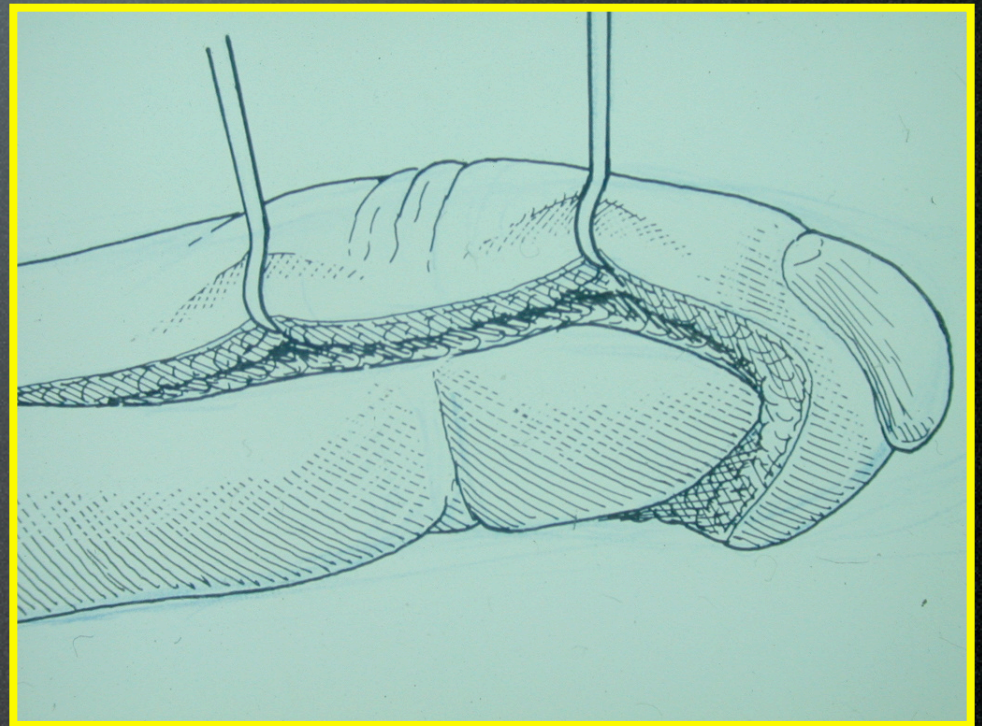
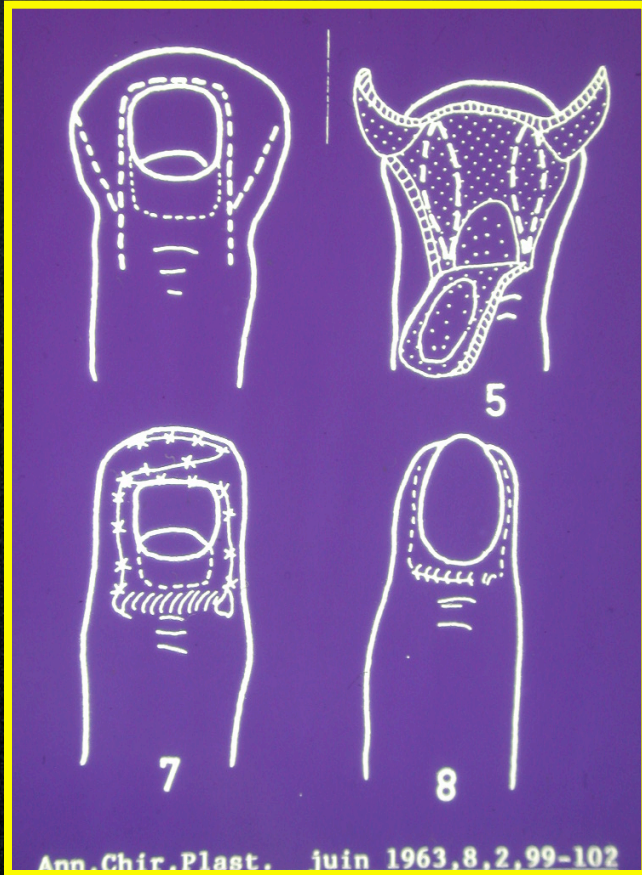


# Bone Reconstruction

- Free bone graft: Tubiana , Gilbert
- Vascularized bone: Gargollo
- Phalangeal osteotomy: Shepard



# Nail recession : Dufourmentel 1963



Variation of Foucher







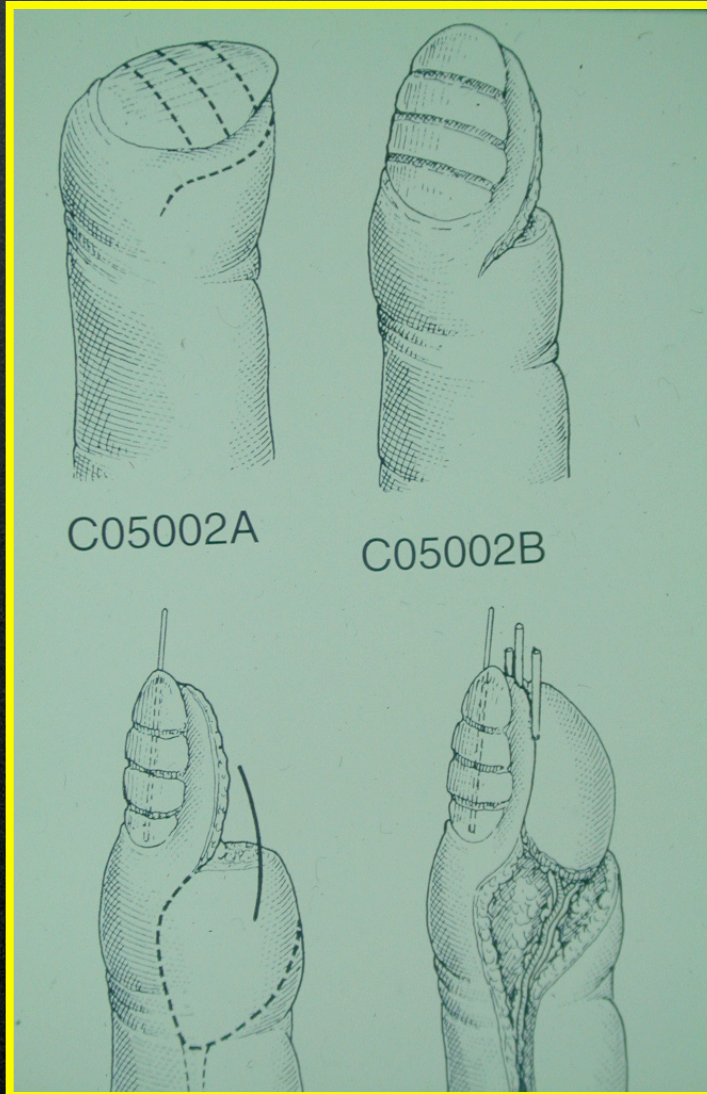




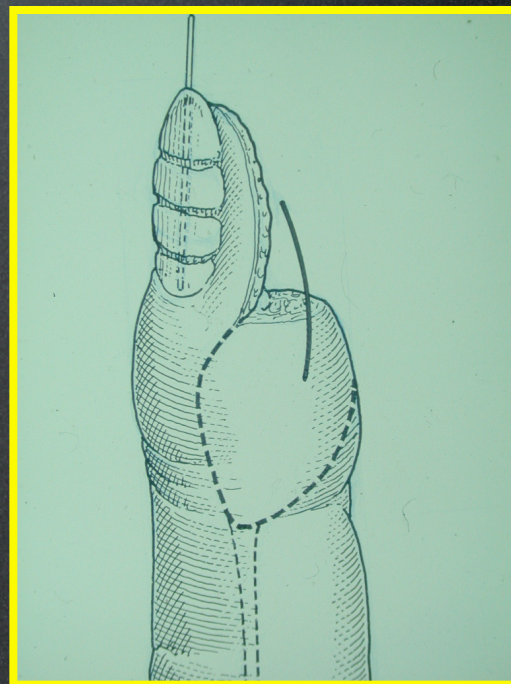
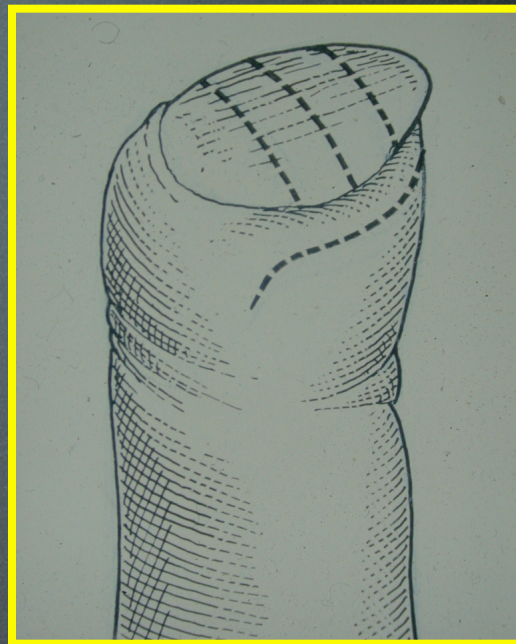




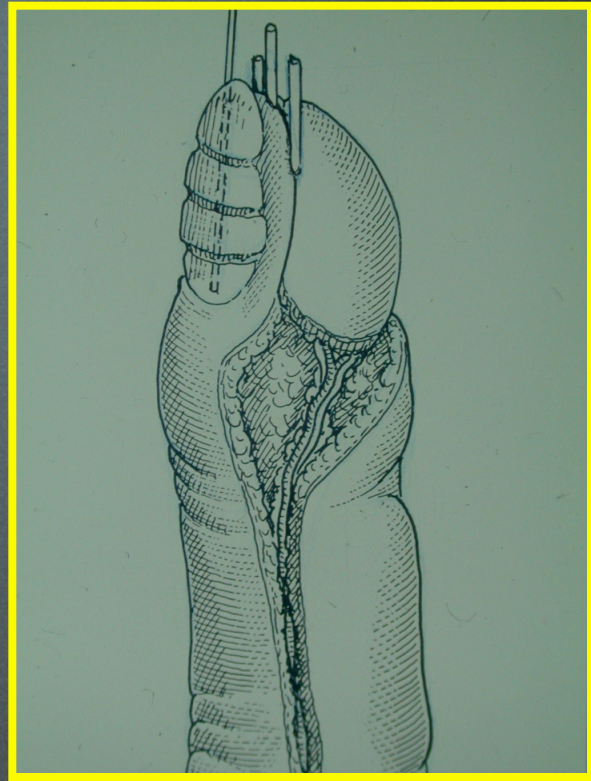
# Island flap reconstruction



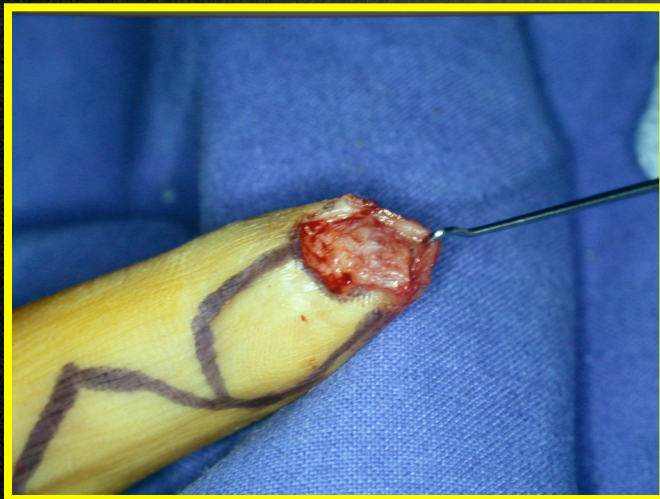


















# RESULTS

28 patients

- 1/3 excellent
- 1/3 good
- 1/3 poor

**RESULTS ARE FUNCTION OF THE BONE LOSS**



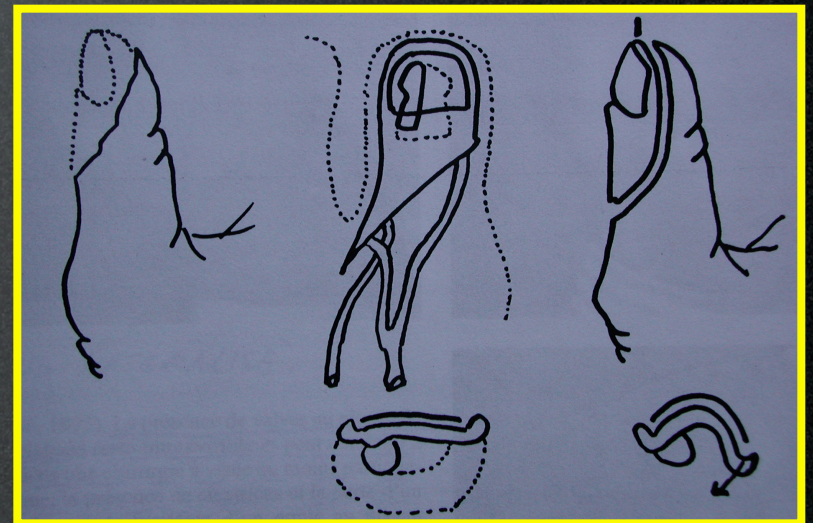
# MICROSURGICAL NAIL RECONSTRUCTION

1980 **W.A MORRISON** wrap-around flap

1980 **G. FOUCHER** wrap-around modified

1988 **KOSHIBA**

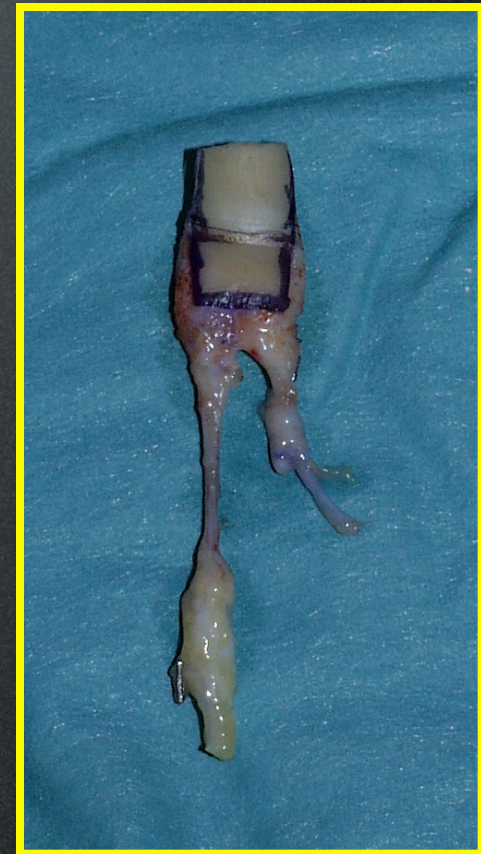
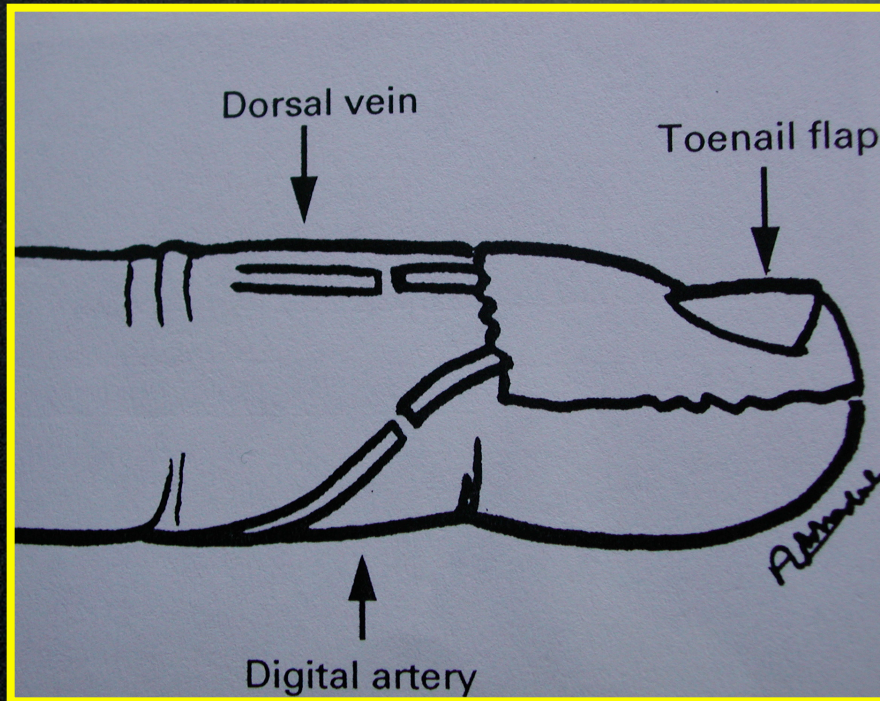
free arterialized nail flap





# MICROSURGICAL NAIL RECONSTRUCTION

1990 NAKAYAMA arterialized venous nail flap

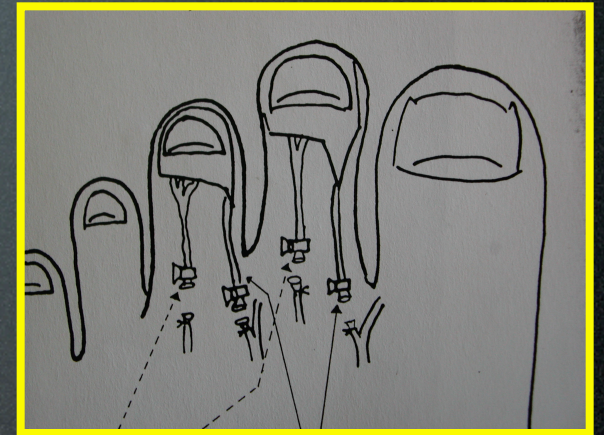




# MICROSURGICAL NAIL RECONSTRUCTION

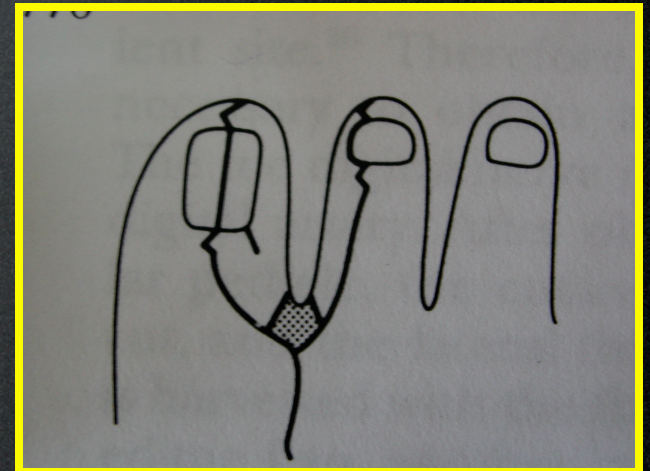
1996 ENDO

short pedicle\_arterialized nail flap



1997 HIRASE

modified twisted-toe flap transfer





# PATIENTS

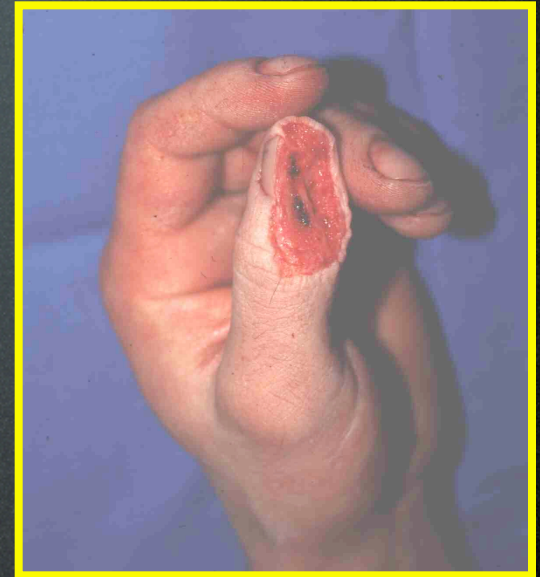
- 1994 - 2000 18 patients
- Age : aver. : 26 y.o. (2 - 60)
- 10 males / 8 females



# TIMING OF SURGERY

- Emergency 3 cases
- Secondary 15 cases

Average delay /16 months  
(6-50)













# PATIENTS: 18 CASES

Recipient site	thumb	index	middle	ring
	4	7	4	3
Donor site	big toe	2nd toe	3rd toe	
	10	6	2	



# TYPE OF FREE NAIL TRANSFER

- Vascularized nail flap 9
- Osteo onychocutaneous nail flap 7
- Arterialized venous nail flap 2



# TYPE OF VASCULAR PEDICLE

Long pedicle vasc. nail flap 7

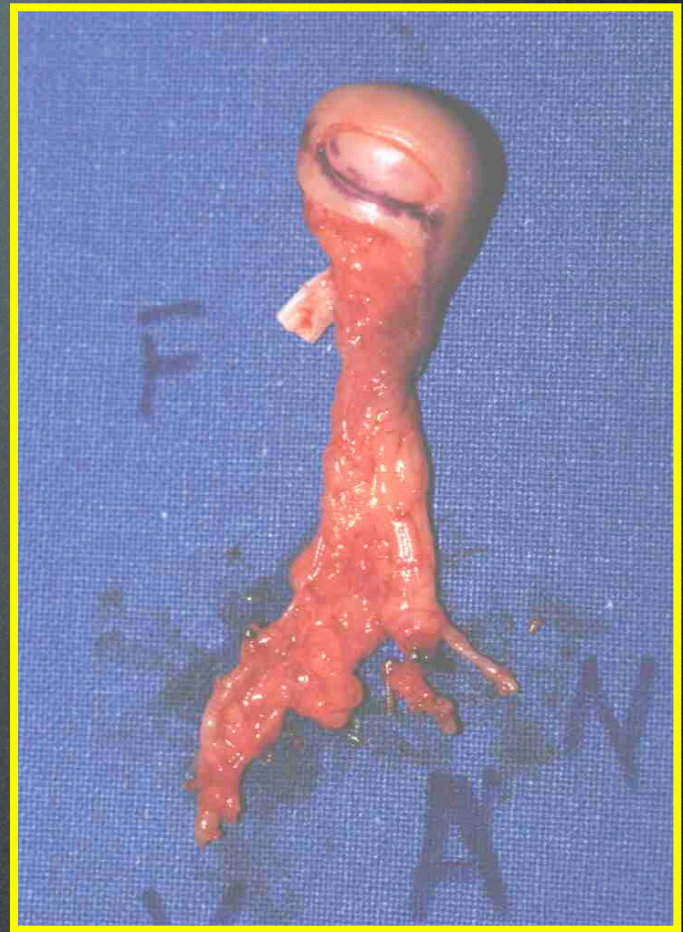
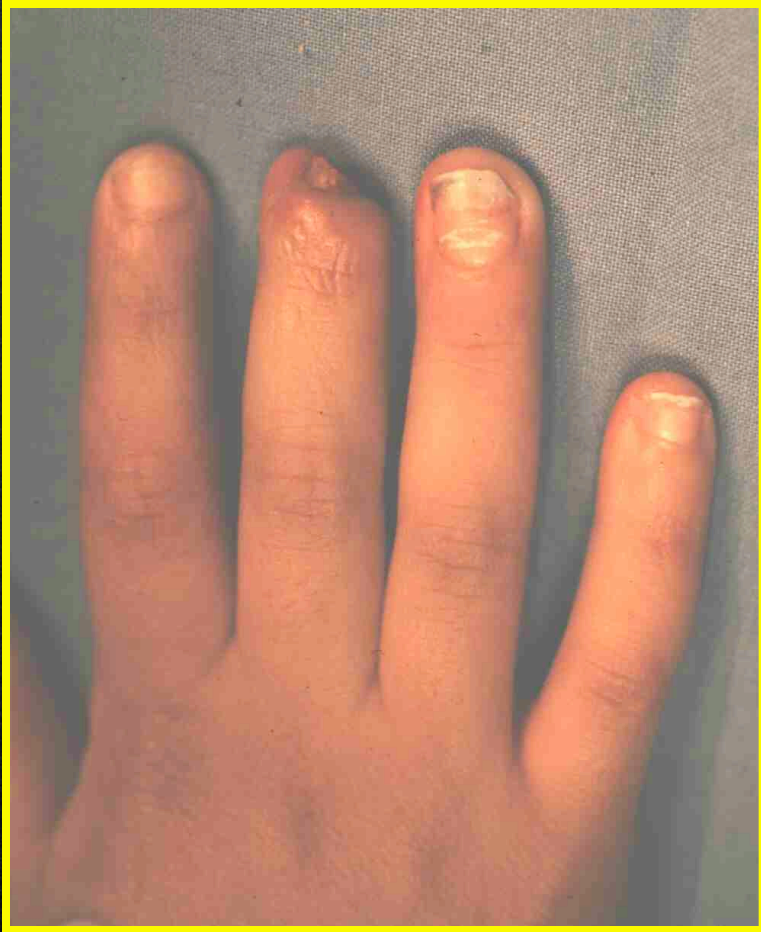
Short pedicle

vascularized nail flap 9

Arterialized venous nail flap 2





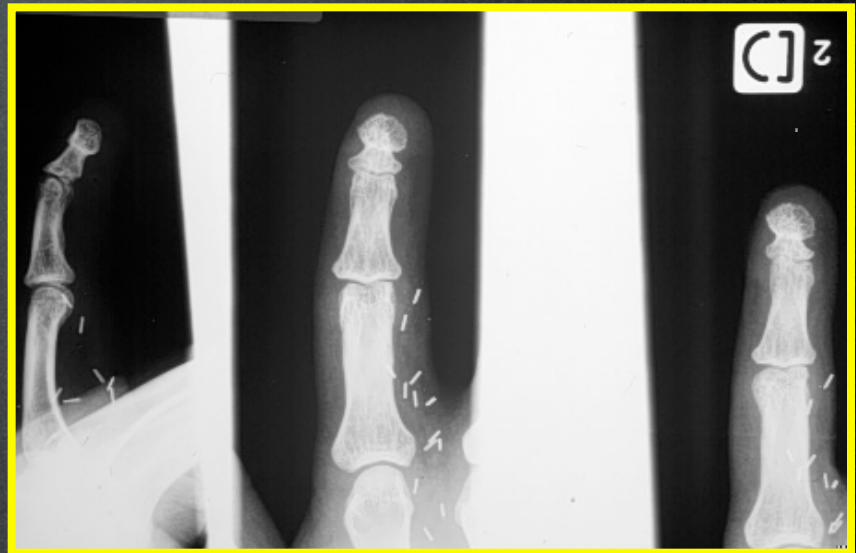


***VERY DISTAL  
AMPUTATION***





Hook-nail











**ARTERIALIZED VENOUS NAIL FLAP**











# RESULTS :18 cases

- Average follow-up 3 years (1-6)
- 16 nail flaps survived completely
- 1 complete necrosis
- 1 partial necrosis
- 90% of patients satisfied



# INDICATIONS

Are function of :

- Bone loss
- Pulp loss
- Finger or thumb
- Local vascularity