Zaidemberg’s vascularised graft. About 8 case.

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From fracture to carpal collapse

- Main bone of the carp (60%-75% of the fractures)
- Men, 15 to 30 years
- Emergency diagnosis is not always easy and still goes unnoticed (10 – 20%)
- Difficult healing
- Slow osteoarthritis evolution of the nonunion
- Important socio-professional consequences
Scaphoid fracture topography

✓ Schernberg's classification

[Classification of fractures of the carpal scaphoid. An anatomo-radiologic study of characteristics].

[Article in French]
Schernberg F.

PMID: 3253831
Scaphoïd non-union

✓ Healing failure at +6 months of the fracture
✓ Alnot’s Classification
Scaphoïd vascularization

- Palmar and dorsal
- 80% dorsal artery
- Proximal part, 100% retrograde
- 0% scapho-lunar ligament
Analyze the results of our series of vascularized grafts according to the Zaidemberg’s technique.
• **Type**: Retrospective monocentric descriptive observationnal study

• **Inclusion criteria**: Scaphoïd non-union treated by Zaidemberg’s vascularized bone graft between 2015 and 2018.

• **Primary endpoint**: Scaphoïd Bone CT scan healing

• **Secondary endpoint**: Complications
Surgical technique

- Dorso-radial approach
- Space 1,2 supra-retinacular artery location
- Opening of the 1st an 2nd compartments
- Extensor tendons are reclined, radial styloïd « deperiosting » protecting the pedicle
- Osteotomy
- Graft prelevment
✓ 8 patients
✓ Average age 26 years
✓ Topography: Zone 1(3), zone 2 (2), zone 3(3)
✓ Alnot 1 and 2a for 1 ORIF failure, 5 first procedure (proximal condensations)
✓ Alnot 2b with SNAC 1 and DISI for the 2 iliac graft révision
✓ 100% healing
✓ Average time 6 mois
✓ MWS 73% (60-75%)
✓ 2 complications
✓ SNAC 1 -> SNAC 2 et 3
✓ Styloïdectomy
✓ 1 year post op
Pre-operative imaging

-> Conventional graft failure if avascular necrosis of the proximal part of the scaphoid (peri-op bleeding)

-> MRI Gadolinium

-> Proximal part of the scaphoid vascularization 100% retrograde

-> Scaphoid proximal part non-union = Vascularized grafts
Osteoarthritis evolution

Management of scaphoid nonunions with vascularized bone graft from the distal radius: mid- to long-term follow-up
Konstantinos N. Malinos1, Zoe Daillana1, Sokratis Varitimidis1, Antonios Koutalos1

SNAC

- 50% osteoarthritis progression if SNAC
- 10% without osteoarthritis (138 patients)

Arthroscan ++

Benoit PEDEUTOUR
le 09 octobre 2013

« Résultats de 87 greffons osseux vascularisés de Zaidemberg dans la pseudarthrose du scaphoïde, étude rétrospective »

- 0% osteoarthritis progression (87 patients)
✓ Reliable traitement of scaphoïd nonunion

✓ Proximal part of the scaphoid and surgical revision

✓ SNAC !

✓ Radiologic evaluation conventionnal grafts vs. vascularized grafts