SOFT TISSUE COVERAGE
OF THE UPPER LIMB

PEDICLED MUSCLE and
FASCIO-CUTANEOUS FLAPS

AC Masquelet  Mars 2007
DIU chirurgie de la Main

Présenté par M. Beustes-Stefanelli
HISTORIC OF FLAPS

- WOOD (1863)
- TANSINI (1892)
- ESSER (1917)
- LITTNER (1953)
- Mc GREGOR (1972)
- OLIVARI (1976)
SKIN VASCULARISATION

• MICHEL SALMON
  - « Les Arteres de la Peau » (1936)
SKIN AND FLAP VASCULARISATION
ADVANCES 1980-2000

- DISTALLY-BASED FLAPS (1981)
- ANATOMY
- VENO and NEURO CUTANEOUS FLAP
- ADIPO-FASCIAL PEDICLED FLAPS
- COMPOSITE FLAPS
REPAIR OF THE UPPER LIMB

THE PAST
SOFT TISSUE COVERAGE and UPPER LIMB

- FEW INDICATIONS OF FREE FLAPS
- NUMEROUS POSSIBILITIES OF PEDICLED FLAPS
- JOINTS MOTION and TENDONS COURSE require SKIN FLAPS and FASCIO-CUTANEOUS FLAPS
PEDICLED FLAPS for the UPPER LIMB

- THE « TREE » OF THE FLAPS FOR THE UPPER LIMB
SHOULDER GIRDLE

- LATISSIMUS DORSI FLAP
- PECTORALIS FLAPS
- SCAPULAR FLAPS
- POSTERIOR ARM FLAP
ANATOMY of the SHOULDER GIRDLE
THE «KING» DONOR SITE FOR ISOLATED, ASSOCIATED AND COMPOUND FLAPS

- BONE
- SKIN
- FASCIA
- MUSCLE
LATISSIMUS DORSI: THE « KING »

VASCULARISATION
TYPE V ACCORDING
THE CLASSIFICATION
OF MATHES AND
NAHAI
LATISSIMUS DORSI : TECHNIQUE
LATISSIMUS DORSI

• ARC OF ROTATION OF THE MUSCLE
UPROOTED LEFT UPPER LIMB
TIKHOFF PROCEDURE
TIKHOFF PROCEDURE
COMPOUND DEFECT
COMPOUND TRANSFER
SCAPULAR FLAPS: ANATOMY

- POSTERIOR CIRCONFLEX ARTERY
SCAPULAR FLAPS: TECHNIQUE

- INDICATIONS:
  - REPAIR OF THE ARMPIT
PARASCAPULAR FLAP
SCAPULAR FLAP
POSTERIOR ARM FLAP

SKIN ARTERIAL BRANCH FROM VASTUS MEDIALIS
POSTERIOR ARM FLAP
PECTORALIS MUSCLES FLAPS
PECTORALIS MINOR

ARC OF ROTATION
PECTORALIS MINOR
PECTORALIS MINOR
COVERAGE OF THE ELBOW

- LATERAL ARM FLAP
- BRACHIO-RADIALIS
- POSTERIOR INTEROSSEOUS FLAP
- LATISSIMUS DORSI FLAP
- ANTECUBITAL FLAP
ANTECUBITAL FLAP
LATISSIMUS DORSI FLAP
LATISSIMUS DORSI FLAP
CHINESE FLAPS

SHANG-TI-SHEN
RU YAO SONG

• 1982

YANG KUO-FAN
LATERAL ARM FLAP: ANATOMY
LATERAL ARM FLAP: TECHNIQUE

• INDICATIONS:
  - COVERAGE OF ANTERIOR AND POSTERIOR ASPECTS OF THE ELBOW
LATERAL ARM FLAP IN EXTENSIVE ARTHROLYSIS OF THE ELBOW JOINT
COVERAGE OF HAND AND WRIST

- RADIAL and ULNAR FLAPS
- POSTERIOR INTEROSSEOUS FLAP
- DISTAL ULNAR FLAP
- ANTERIOR INTEROSSEOUS FLAP
- PRONATUS QUADRATUS FLAP
- GROIN FLAP!
RADIAL FOREARM FLAP
RADIAL FOREARM FLAP

• INDICATIONS:
  - COVERAGE OF THE DORSUM OF HAND AND FINGERS
RADIAL FOREARM FLAP

- ARC OF ROTATION IS INCREASED BY DECROSSING THE TENDONS
RADIAL FOREARM FLAP

- EXTENDED NECROSIS BY ANTIMITOTIC AGENT
- ITERATIVE EXCISION
- COVERAGE BY A «CHINESE» FLAP
- MP ARTHROLYSIS
- TWO-STAGES RECONSTRUCTION of EXTENSOR TENDONS
RADIAL FOREARM FLAP
ULNAR FOREARM FLAP

NEW INTEREST!
VERY LONG PEDICLE!
RADIAL FOREARM FLAP WITHOUT RAISING THE RADIAL ARTERY
POSTERIOR INTEROSSEOUS FLAP ANATOMY
POSTERIOR INTEROSSEOUS FLAP
SEQUELLAE OF BURNS
PIO FLAP and 1st WEB
POSTERIOR INTEROSSEOUS FLAP

- PROXIMALLY-BASED FLAP
- SMALL DEFECTS
THE POSTERIEUR INTEROSSEOUS FLAP FOR COVERING THE ELBOW
OSTEO-CUTANEOUS DEFECT ON THE ULNAR SIDE
DISTAL ULNAR FLAP

- INDICATIONS:
  ULNAR and DORSAL ASPECTS of HAND and WRIST
PRONATUS QUADRATUS FLAP

• FEW INDICATIONS
GROIN FLAP

• COVERAGE OF ELBOW, FOREARM, HAND AND WRIST
PEDICLED GROIN FLAP
SOFT TISSUE REPAIR OF THE UPPER LIMB

• CONCLUSIONS:
  - LATISSIMUS DORSI and GROIN FLAP CAN BE USED IN THE MAJORITY OF THE DEFECTS