W HOSPITAL

HAND & MICROSURGERY, ORTHOPEDIC SURGERY

# 2022 ANNUAL REPORT 연보

W병원

# 2022 ANNUAL REPORT 연보

## 01 미션비전 및 의료진 소개

본원 의료진 소개

## 02 진료통계

원무통계, 응급실 통계, 수술통계, 영상의학 통계,
진단검사의학과 통계, 작업치료 통계, 물리치료 통계

## 03 학술 및 연구활동

학술 발표, 의료진 학회 참석 및 발표, 컨퍼런스 스케줄



# Always!

## W병원이 늘 함께 하겠습니다

**MISSION**

**예쁜 손, 편한 발, 튼튼한 관절을 위한**
**특화된 근골격계 전문병원으로서의 위상 구현**

**VISION**

### 01_환자 중심의 진료

W병원은 정확한 진단, 맞춤진료, 기능적 심미적 측면을 통합한 의료 서비스로
환자에게 희망과 감동을 선물한다.

### 02_연구 및 교육하는 의료진

W병원은 다양한 임상 경험을 바탕으로 미래지향적 연구와
교육을 할 수 있는 역량있는 의료진을 갖춘다.

### 03_소통과 나눔

W병원은 환자와의 소통, 직원간의 화합, 지역사회에 봉사와
나눔을 실천하는 문화 공간이 되게 한다.

## ORTHOPEDIC & TRAUMA CENTER

회전근개파열, 오십견
# 어깨·팔꿈치

전문분야

어깨, 팔꿈치, 수부, 소아정형외과

정형외과 전문의 | 의학박사
수부외과 세부전문의
**의무원장 서재성**

전문분야

어깨, 견관절, 관절내시경

정형외과 전문의 | 의학박사
**원장 박성혁**

전문분야

어깨 통증, 정형외과적 외상, 류마티스 질환

정형외과 전문의
**원장 신동주**

## 외과

전문분야

복강경, 간, 담도, 췌장 질환

외과 전문의
**의무원장 유용운**

## ORTHOPEDIC & TRAUMA CENTER

# 무릎·고관절
# 발·발목관절

전문분야

골절 및 무릎관절

정형외과 전문의 | 의학박사
**명예원장 인주철**

전문분야

외상, 인공관절치환술, 골연장술, 관절내시경, 사지변형, 소아정형외과

정형외과 전문의 | 의학박사
**원장 김성중**

전문분야

무릎인공관절, 관절경

정형외과 전문의
**원장 김상희**

전문분야

골절 및 외상, 족부족관절 내시경, 발의 통증 및 변형, 관절염

정형외과 전문의
**부장 이상현**

## HAND & RECONSTRUCTIVE MICROSURGERY CENTER

수지접합, 손목, 손 저림
# 손·손목관절

전문분야

손 발의 선천성 다름, 손 저림, 신경수술, 힘줄, 인대수술, 소아수부 및 족부외과

수부외과 세부전문의
성형외과 전문의 | 의학박사
**병원장 우상현**

전문분야

손의 통증 및 저림, 상하지 외상, 미세접합수술, 수부재건, 소아정형외과

수부외과 세부전문의
정형외과 전문의 | 의학박사
**원장 김영우**

전문분야

관절내시경, 수부재건, 미세접합수술, 손의 통증 및 저림, 소아정형외과

수부외과 세부전문의
정형외과 전문의
**원장 천호준**

전문분야

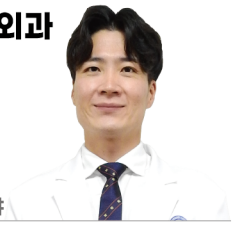
스포츠 손상, 골절 및 외상, 미세접합수술, 관절내시경

수부외과 세부전문의
정형외과 전문의
**원장 강동호**

## SPINE & REHABILITATION & PAIN MEDICINE CENTER

스포츠재활, 척추 비수술적 처치
# 척추재활
# 통증의학센터

## 신경외과



전문분야

척추질환, 척추내시경, 노인성 척추질환, 골다공성 압박골절 및 척추골절, 비수술적 척추시술

신경외과 전문의
**부장 이경민**

## 신경과

전문분야

손 발 저림, 손 떨림, 근육질환
당뇨병성 말초 신경염, 말초신경질환

신경과 전문의
**부장 이효은**

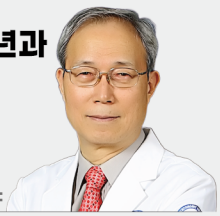
## 마취통증의학과

전문분야

소아신생아 마취, 통증치료, 팔마취, 각종 부위마취

마취통증의학과 전문의
**원장 이영희**

## 소아 청소년과



전문분야

소아심장, 초음파

소아청소년과 전문의

**의무원장 전진곤**

## 영상의학과

전문분야

초음파, 근골격계영상의학, 소화기영상의학

영상의학과 전문의

**부장 이지현**

전문분야

초음파, 근골격계영상의학, 소화기영상의학

영상의학과 전문의

**부장 이종훈**

전문분야

초음파, 근골격계영상의학, 소화기영상의학

영상의학과 전문의

**부장 황재도**

## 진단검사 의학과

전문분야

진단검사의학일반, 임상화학, 검사정보학, 정도관리학

진단검사의학과 전문의

**원장 이태수**

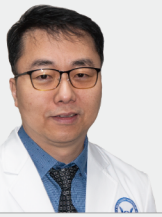
전문분야

무릎인공관절, 관절경

정형외과 전문의

**과장 김민극**

## 응급실



전문분야

골절, 응급의학

응급의학과 전문의

**원장 설동환**

전문분야

골절, 응급의학

전문의 / 응급실 전담의

**원장 이재열**

전문분야

골절, 응급의학

응급의학과 전문의

**부장 이민지**

전문분야

골절, 응급의학

응급실 전담의

**과장 우수경**

전문분야

수부화상재선, 연부조직재건술, 미세수술, 수부재건, 흉터성형, 치료성형

수부외과 세부전문의
성형외과 전문의

**원장 남현재**

전문분야

발가락을 이용한 손가락 재건술, 관절내시경, 미세접합수술, 수지접합

수부외과 세부전문의
정형외과 전문의

**원장 유명재**

전문분야

미세수술, 수부재건, 수지접합, 골절 및 외상, 흉터성형, 치료성형

수부외과 세부전문의
성형외과 전문의

**부장 최진희**

전문분야

미세수술, 수부재건, 수지접합, 골절 및 외상, 관절내시경(어깨/손목/팔꿈치)

수부외과 세부전문의
정형외과 전문의

**부장 김병진**

전문분야

미세재건수술, 림프부종, 선천성 다름, 성형수술(흉터성형, 치료성형)

수부외과 세부전문의
성형외과 전문의

**과장 우수진**

전문분야

척추 비수술적 처치, 소아신생아 마취, 통증치료, 팔마취, 신경차단

마취통증의학과 전문의

**원장 서보병**

전문분야

척추 비수술적 처치, 소아신생아 마취, 통증치료, 팔마취, 신경차단

마취통증의학과 전문의

**부장 김민지**

## 내과

전문분야

내분비계질환 및 소화기계질환

내과 전문의 | 의학박사

**원장 안재희**

전문분야

심장초음파, 고혈압, 당뇨

내과 전문의

**과장 박정현**

전문분야

미세재건수술, 수부접합술, 골절 및 외상, 화상, 성형수술(흉터성형, 치료성형)

성형외과 전문의

**과장 박광현**

# 2022 ANNUAL REPORT
# Worthwhile Results

## SECTION. 01
## 진료통계

W
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REPORT

WORTHWHILE
RESULTS

- 원무통계
- 응급실 통계
- 수술 통계
- 영상의학 통계
- 재활치료 통계
- 진단검사의학 통계

**외래환자 통계(전년대비)**

| 진료과 | 실인원 | 연인원 |
|---|---|---|
| 수부외과 | 29,538(+896 / 3%) | 138,023(+2,850 / 2%) |
| 정형외과 | 24,269(+2,489 / 11%) | 83,626(+8,585 / 11%) |
| 응급실 | 15,997(+1,860 / 13%) | 17,074(+1,629 / 11%) |
| 내과 | 24,250(+9,258 / 62%) | 38,346(+16,458 / 75%) |
| 기타 | 17,163(+5,500 / 47%) | 21,824(+5,193 / 31%) |
| **합계** | **111,217(+20,003 / 22%)** | **298,893(+34,715 / 13%)** |

*코로나 검사 28,937명

**신환 · 구환 통계(전년대비)**

| 신환자수 | 구환자수 | 합계 |
|---|---|---|
| 53,522(+10,106 / 47%) | 245,371(+24,609 / 11%) | **298,893(+34,715 / 13%)** |

**초진 · 재진 통계(전년대비)**

| 초진 | 재진 | 합계 |
|---|---|---|
| 97,565(+17,802 / 22%) | 201,328(+16,913 / 9%) | **298,893(+34,715 / 13%)** |

**지역별 외래환자 통계**

| 합계 | 대구 | 경북 | 서울 | 부산 | 울산 | 대전 | 인천 | 광주 | 경기 |
|---|---|---|---|---|---|---|---|---|---|
| | 211,271 | 49,928 | 998 | 1,114 | 1,922 | 258 | 223 | 250 | 1,344 |
| **298,893** | **경남** | **충북** | **충남** | **전북** | **전남** | **강원** | **제주** | **세종** | **기타** |
| | 11,791 | 419 | 487 | 279 | 350 | 264 | 225 | 94 | 17,676 |

*대구 70%, 경북 17%, 대구경북 외 지역 13%

**입원환자 통계(전년대비)**

| | 실인원(입원) | 연인원(재원) |
|---|---|---|
| 수부외과 | 8,405(+325 / 4%) | 47,726(-759 / -2%) |
| 정형외과 | 4,866(+377 / 8%) | 38,598(+243 / 1%) |
| 기타 | 285(+18 / 7%) | 1,348(-238 / -15%) |
| **합계** | **13,556(+720 / 6%)** | **87,672(-754 / -1%)** |

*평균 재원일수 6.5(-0.4 / -6%)

**수술건수 통계(전년대비)**

| 수부외과 | 정형외과 | 성형외과 | 신경외과 | 합계 |
|---|---|---|---|---|
| **12,644(+583 / 5%)** | **5,290(+412 / 8%)** | **1(-1 / -50%)** | **189(+38 /25%)** | **18,124(+1,032 / 6%)** |

**주요지표(전년대비)**

| 일평균 외래환자수(명) (외래진료일수 306일 기준) | 외래 신환율(%) | 외래 초진율(%) | 일평균 재원 환자수(명) | 병상가동율(%) | 일평균 수술건수(건) |
|---|---|---|---|---|---|
| **976(+56)** | **17.9(+1.5)** | **32.6(+2.4)** | **240(-2)** | **92.0(-0.8)** | **49.6(+2.8)** |

## 응급실 입·퇴원 환자 수

| 입원 | 퇴원 | 합계 |
|---|---|---|
| 3,819(+470 / 14%) | 13,255(+1,159 / 10%) | **17,074(+1,629 / 11%)** |

## 손상별 환자 수

| amputation | crushing inj. | fracture | laceration | skin defect | degloving | burn | pain | others | 합계 |
|---|---|---|---|---|---|---|---|---|---|
| 684 | 970 | 3,735 | 6,739 | 434 | 4 | 36 | 2,966 | 1,506 | **17,074** |

## 지역별 응급환자 수

| 대구 | 경북 | 서울 | 부산 | 울산 | 대전 | 인천 | 광주 | 경기 | 합계 |
|---|---|---|---|---|---|---|---|---|---|
| 12,361 | 2,506 | 82 | 62 | 56 | 18 | 19 | 15 | 81 | **17,074** |
| **경남** | **충북** | **충남** | **전북** | **전남** | **강원** | **제주** | **세종** | **기타** | |
| 627 | 16 | 22 | 18 | 20 | 17 | 8 | 1 | 1,145 | |

*대구 72%, 경북 14%, 대구경북 외 지역 14%

## 남녀별 내원 환자 수

| 남 | 여 | 합계 |
|---|---|---|
| 11,082(+892 / 9%) | 5,992(+737 / 14%) | **17,074(+1,629 / +11%)** |

## 연령별 내원 환자 수

| 0~9세 | 10~19세 | 20~29세 | 30~39세 | 40~49세 | 50~59세 | 60~69세 | 70~79세 | 80세~ | 합계 |
|---|---|---|---|---|---|---|---|---|---|
| 1,720 | 1,561 | 2,490 | 2,260 | 2,310 | 2,873 | 2,419 | 916 | 525 | **17,074** |

## 요일별 내원 환자 수

| 월요일 | 화요일 | 수요일 | 목요일 | 금요일 | 토요일 | 일요일 | 합계 |
|---|---|---|---|---|---|---|---|
| 2,181 | 2,007 | 1,981 | 1,936 | 2,068 | 3,100 | 3,801 | **17,074** |

*토, 일요일, 주말 내원 환자수: 6,901명(40%)

## 시간대별 환자 수

| 0~4시 | 4~8시 | 8~12시 | 12~16시 | 16~20시 | 20~24시 | 합계 |
|---|---|---|---|---|---|---|
| 1,124 | 581 | 3,332 | 3,933 | 4,572 | 3,532 | **17,074** |

## 공휴일별 내원 환자 수

| 신정연휴 | 구정연휴 | 삼일절 | 대통령선거 | 어린이날 | 지방선거 | 합계 |
|---|---|---|---|---|---|---|
| 69 | 224 | 62 | 45 | 66 | 66 | **1,223** |
| 현충일 | 광복절 | 추석연휴 | 개천절 | 한글날 | 성탄절 | |
| 82 | 78 | 331 | 80 | 64 | 56 | |

## 마취종류별

| | |
|---|---|
| Brachial plexus block | 10,674 |
| General anesthesia | 713 |
| Spinal anesthesia | 3,121 |
| Lower extremity nerve block | 1,373 |
| Local anesthesia | 1,354 |
| MAC (W.A) | 1,146 |
| **합계** | **18,381** |

## 수술 종류별

### 1. CONGENITAL DEFORMITY

| | |
|---|---|
| Duplicated thumb | 130 |
| Z-deformity | 26 |
| Syndactyly(foot) | 23 |
| Syndactyly(hand) | 59 |
| Polysyndactyly(foot) | 179 |
| Apert syndrome | 0 |
| Cleft hand | 3 |
| Constriction band syndrome | 9 |
| Hypoplastic thumb | 5 |
| **합계** | **434** |

### 2. DISEASE

#### 1) BONE & JOINT

| | | |
|---|---|---|
| ARTHRITIS | DIP and PIP joint | 114 |
| | 1st CMC joint | 23 |
| | Wrist | 8 |
| | 소계 | 145 |
| CONTRACTURE | Dupuytren's contracture | 47 |
| | Scar contracture | 113 |
| | Others(joint) | 0 |
| | 소계 | 160 |
| **합계** | | **305** |

#### 2) TENDON

| | |
|---|---|
| Trigger finger | 750 |
| DeQuervain's disease | 92 |
| Lat/Med. epicondylitis | 59 |
| TB tenosynovitis | 12 |
| Other tenosynovitis | 88 |
| **합계** | **1,001** |

#### 3) NERVE COMPRESSION

| | |
|---|---|
| Carpal tunnel syndrome | 912 |
| Recurred CTS | 5 |
| Cubital tunnel syndrome | 115 |
| Recurred CuTS | 1 |
| **합계** | **1,033** |

#### 4) TUMOR

| | | |
|---|---|---|
| SOFT TISSUE TUMOR | Lipoma | 55 |
| | Ganglion | 322 |
| | Giant cell tumor | 38 |
| | Glomus tumor | 33 |
| | 소계 | 448 |
| BONE & CARTILAGE TUMOR | Enchondroma | 11 |
| | Osteochondroma | 10 |
| | Others | 89 |
| | 소계 | 110 |
| **합계** | | **558** |

### 3. TRAUMA

#### 1) REPLANTATION

| | | |
|---|---|---|
| LEVEL에 따른 분류 | Zone I | 18 |
| | Phalanx | 190 |
| | Metacarpal | 1 |
| | Wrist | 2 |
| | Above wrist | 2 |
| | Others(lower ext.) | 1 |
| | 합계 | 214 |
| 연령에 따른 분류 | 소아(<15 세) | 2 |
| | 청장년(16~59 세) | 136 |
| | 고령(>60 세) | 45 |
| | 합계 | 183 |

#### 2) REVASCULARIZATION(Incomplete amputation case)

| | | |
|---|---|---|
| LEVEL에 따른 분류 | Zone I | 6 |
| | Phalanx | 190 |
| | Metacarpal | 2 |
| | Wrist | 1 |
| | Above wrist | 6 |
| | Others(lower ext.) | 6 |
| | 합계 | 211 |
| 연령에 따른 분류 | 소아(<15 세) | 4 |
| | 청장년(16~59 세) | 115 |
| | 고령(>60 세) | 46 |
| | 합계 | 165 |

### 3) REVISION AMPUTATION

| | |
|---|---|
| Phalanx | 307 |
| Metacarpal | 5 |
| Wrist | 3 |
| Forearm | 3 |
| Elbow | 1 |
| Upper arm | 1 |
| Above Knee | 1 |
| Below Knee | 2 |
| Foot | 4 |
| Toe | 53 |
| **합계** | **380** |

### 4) FLAP

| | | |
|---|---|---|
| LOCAL FLAP | V-Y advancedment flap | 191 |
| | Rotational flap | 50 |
| | Turn-over fascial flap | 0 |
| | Muscle flap | 1 |
| | Others(fillet flap etc.) | 323 |
| | 소계 | 565 |
| REGIONAL FLAP | Groin flap | 4 |
| | Thenar flap | 10 |
| | Cross finger flap | 28 |
| | Others | 5 |
| | 소계 | 47 |
| ISLAND FLAP | Radial forearm flap | 4 |
| | Reversed or digital island flap | 88 |
| | PIA flap | 4 |
| | Propellar flap | 1 |
| | 소계 | 97 |
| FREE FLAP | ALT flap | 44 |
| | RASP | 11 |
| | Toe pulp flap | 6 |
| | Venous flap | 2 |
| | Vascularized bone graft | 1 |
| | Other (PIA, SCIP, FFMT, etc.) | 24 |
| | 소계 | 88 |
| **합계** | | **797** |

### 5) TOE TRANSFER

| | | |
|---|---|---|
| TYPE | Great toe transfer | 13 |
| | Second toe transfer | 3 |
| | Vascularized toe joint transfer | 0 |
| | 소계 | 16 |
| OPERATION TIMING | Primary toe transfer | 6 |
| | Elective toe transfer | 10 |
| | 소계 | 16 |

### 6) FRACTURE

| | |
|---|---|
| Phalanx | 1,414 |
| Metacarpal | 350 |
| Carpal | 39 |
| Radius/Ulnar | 949 |
| Humerus | 192 |
| Clavicle | 141 |
| Femur | 138 |
| Tibia | 229 |
| Patella | 56 |
| Fibula | 383 |
| Calcaneous | 76 |
| Metatarsal | 229 |
| Toe | 251 |
| **합계** | **4.447** |

### 7) TENDON LACERATION OR REPAIR

| | |
|---|---|
| Hand | 827 |
| Wrist | 99 |
| Forearm | 48 |
| Arm | 3 |
| **합계** | **977** |

### 8) MUSCLE LACERATION OR REPAIR

| | |
|---|---|
| Hand | 78 |
| Forearm | 89 |
| Arm | 2 |
| **합계** | **169** |

### 9) NERVE LACERATION OR REPAIR

| | |
|---|---|
| Digit | 274 |
| Hand | 56 |
| Wrist | 33 |
| Forearm | 6 |
| Arm | 2 |
| **합계** | **371** |

### 10) BITE INJURY

| | |
|---|---|
| Dog bite | 37 |
| Human bite | 1 |
| Snake bite | 0 |
| Others | 5 |
| **합계** | **43** |

## 4. ARTHROSCOPY

### 1) SHOULDER & ELBOW

| | |
|---|---|
| Rotator cuff rupture (Bankart 포함) | 639 |
| Contracture | 2 |
| ECRB release | 7 |
| OA | 8 |
| **합계** | **656** |

### 2) WRIST

| | |
|---|---|
| TFCC injury | 71 |
| Scaphoid nonuion | 34 |
| **합계** | **105** |

### 3) KNEE

| | |
|---|---|
| ACL reconstruction | 131 |
| Meniscus injury | 169 |
| Plica syndrome | 51 |
| **합계** | **351** |

### 4) ANKLE

| | |
|---|---|
| OLT | 10 |
| Impinge | 6 |
| OA | 22 |
| Instability | 64 |
| **합계** | **102** |

## 5. JOINT REPLACEMENT ARTHROPLASTY

| | |
|---|---|
| TKR | 216 |
| THR | 36 |
| HTO | 110 |
| RTSA | 42 |
| **합계** | **404** |

## 6. ANKLE & FOOT

| | | |
|---|---|---|
| Hallux valgus | | 126 |
| Bunionette | | 15 |
| Ankle instability | | 38 |
| Flat foot & Cavus deformity | | 7 |
| Achilles rupture | | 118 |
| Tarsal tunnel syndrome | | 1 |
| Accessory navicular syndrome | | 1 |
| Morton's neuroma | Supramalleolar osteotomy | 6 |
| Arthritis | Ankle fusion | 13 |
| **합계** | | **325** |

## 영상의학 통계

### 영상의학통계

| 2022년(전년대비증감) | | |
|---|---|---|
| 일반촬영 | | 200,868(+10,886 / 6%) |
| CT | | 11,031(+1,061 / 11%) |
| 초음파(SONO) | | 37,844(+2,953 / 8%) |
| MRI | MRI 1호기 | 13,225(+1,380 / 12%) |
| | MRI 2호기 | 3,133(+288 / 10%) |
| | MRI 소계 | 16,358(+1,668 / 11%) |
| 골밀도검사(BMD) | | 1,352(-263 / -16%) |

## 작업치료 통계

### 작업치료환자

| 2022년(전년대비증감) | |
|---|---|
| 작업치료 | 5,730(-1,238 / -18%) |
| 수지기능검사 | 3,253(+174 / 6%) |
| 2 Point 검사 | 977(+164 / 20%) |
| 족저압검사 | 2,035(-135 / -6%) |
| 관절가동범위검사 | 5,600(-186 / -3%) |

## 진단검사의학과 통계

### 임상병리검사

| 2022년(전년대비증감) | | |
|---|---|---|
| 혈액검사 | 일반화학 | 465,543(+23,101 / 5%) |
| | 진단혈액 | 367,613(+11,946 / 3%) |
| | 진단면역 | 77,157(+5,378 / 7%) |
| | 수혈의학 | 64,006(+4,647 / 8%) |
| | 요경검 | 27,343(+1,652 / 6%) |
| | 소계 | 1,001,662 (+46,724 / 5%) |
| 종합검증/판독 | | 6,232(+640 / 11%) |
| 기능검사 | NCV | 15,466(+3,648 / 31%) |
| | EMG | 2,072(+885 / 75%) |
| | EMG(체간) | 1,937(+1,683 / 663%) |
| | DITI | 1,630(+333 / 26%) |
| | DITI(Cold) | 1,699(+207 / 14%) |
| | 심전도 | 10,013(+795 / 9%) |
| | 폐기능검사 | 541(2022년 추가) |
| | 협심증검사 | 1,761(2022년 추가) |
| | 소계 | 35,119(+9,853 / 39%) |
| COVID19 PCR | 코로나19(개별) | 30,455(+2,673 / 10%) |
| | 코로나19(취합) | 16,062(+8,513 / 113%) |
| | 신속항원 | 11,497(+4,223 / 58%) |
| | 소계 | 58,014 (+15,409 / 36%) |
| **합계** | | **1,101,027(+72,626 / 6%)** |

## 물리치료 통계

### 물리치료환자

| 2022년(전년대비증감) | |
|---|---|
| 고압산소치료 | 17,023(+596 / 4%) |
| 표층열치료 | 42,815(-6,869 / -14%) |
| 심층열치료 | 27,415(+479 / 2%) |
| 파라핀치료 | 3,479(-392 / -10%) |
| 회전욕 | 19,476(+5,720 / 42%) |
| 한냉치료 | 993(-62 / -6%) |
| 견인치료 | 60(-211 / 78%) |
| EST | 5,630(+250 / 5%) |
| TENS,ICT | 65,848(-1,952 / -3%) |
| 단순운동치료 | 31,075(+888 / 3%) |
| CPM | 7,129(+312 / 5%) |
| 저출력레이저 | 1,493(+18 / 1%) |
| 도수치료 | 17,040(+1,099 / 7%) |
| **합계** | **239,476(-124 / -0.1%)** |

2022 ANNUAL REPORT

# Wonderful Presentations & Publications

W HOSPITAL 2022 ANNUAL REPORT

WORTHWHILE RESULTS

## SECTION. 02
## 학술 및 연구활동

- 학술 발표
- 의료진 학회 참석 및 발표
- 컨퍼런스 스케줄

AHM
Archives of Hand and Microsurgery

Original Article

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www.handmicro.org

# Long-term results of wide local excision with concurrent venous free flap reconstruction in subungual melanoma

Soo Jin Woo[1], I Zhen Ma[1], Sung Tack Kwon[1], Seong Oh Park[2], Byung Jun Kim[1], Ki Yong Hong[1]

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[2]Department of Plastic and Reconstructive Surgery, Hanyang University College of Medicine, Seoul, Korea

**Purpose:** Wide local excision (WLE) has been used as an alternative to amputation for preserving the length of the digit in subungual melanoma (SUM). For reconstruction, a free flap could be a more suitable option than a skin graft or a local flap. We investigated the clinical value of WLE with concurrent venous free flap reconstruction in SUM located on the finger and toe.

**Methods:** Seventeen patients underwent WLE with a concurrent arterialized venous free flap between January 2011 and December 2015. Venous flaps were harvested from the forearm or foot dorsum and inset using a through- or against-valve type.

**Results:** The mean tumor area was 1.3±0.9 $cm^2$, and the mean resection margin was 5.6±2.3 mm. In histologic analyses, the mean tumor thickness was 1.2±1.1 mm. The mean duration of the follow-up period was 75.5 months. Three patients had local recurrence and one patient had distant metastasis. Reconstruction of the fingers and toes using a venous flap was effective and could be performed without major complications. Patients were satisfied with the functional and aesthetic results.

**Conclusion:** WLE provides an acceptable local control rate and offers a safe and conservative alternative for the treatment of SUM of the fingers and toes. Concurrent venous free flaps could be a desirable option for aesthetic and functional reconstruction.

**Keywords:** Melanoma, Free flap

## Introduction

Subungual melanoma (SUM) is a distinct form of cutaneous melanoma that accounts for 0.7% to 3.5% of all melanomas in Caucasians [1,2]. The most common histologic subtype of SUM is acral lentiginous melanoma. Notably, a higher incidence of acral lentiginous melanoma in the East Asian population results in an approximate SUM incidence of 15% to 30% among all types of melanoma [3-5]. Due to the Tyndall effect, black or brown pigmentation under the nail plate appears less dark and suspicious, causing a delay in diagnosis and treatment [2,6]. Moreover, the unique anatomy of the nail complex makes it challenging to perform an excisional biopsy and determine the tumor thickness.

Surgical treatment of SUM is typically amputation at the level proximal to the tumor. However, permanent deformity of the finger or toe due to amputation can have a substantial psychological impact on the patient [7]. Despite aggressive treatment, SUM has a poor prognosis in terms of the 5-year survival rate, which ranges from 16% to 80% [2]. To date, the treatment guidelines for SUM based on

RECONSTRUCTIVE SURGERY

# Medial Plantar Fasciocutaneous Flap Reconstruction for Load-Bearing Foot Defects in Patients With Acral Melanoma

*Soo Jin Woo, MD, Jiwon Kang, MD, Ju Long Hu, MD, Sung Tack Kwon, MD, PhD, Hak Chang, MD, PhD, and Byung Jun Kim, MD*

**Background:** Acral lentiginous melanoma (ALM) is a rare subtype of malignant melanoma that usually involves the weight-bearing plantar area. Plantar defect reconstruction has traditionally been performed with skin grafts or free flaps. This study examined the efficacy and safety of a medial plantar artery perforator flap (MPAPF) for plantar defect reconstruction after wide excision of an ALM.

**Method:** Twenty-five patients who underwent reconstruction with a MPAPF between 2011 and 2021 were enrolled in this study. The defects were classified into 6 plantar zones. Demographic and clinical data were retrospectively analyzed.

**Results:** Reconstruction with medial plantar fasciocutaneous island flaps was performed in all cases, except for 4 patients who had lesions in forefoot, which required free medial plantar flaps. Defects in lateral and posterior heel were more likely to present with venous congestion and require longer healing times and revision surgery ( $P < 0.05$). The average follow-up period was 49 months. Four and 5 patients developed local recurrence and distant metastasis, respectively. Four cases of hyperkeratosis and paresthesia were documented, but there were no cases of ulceration or wound dehiscence. None of the cases required secondary debulking procedures.

**Conclusions:** The MPAPF is safe and effective for plantar defect reconstruction among patients with ALM. Meticulous dissection and adequate tunneling are needed, particularly for defects in the lateral and posterior heel, to minimize flap congestion and revision operations.

**Key Words:** medial plantar fasciocutaneous flap, acral melanoma, foot reconstruction, foot subdivision

(*Ann Plast Surg* 2022;88: 658–664)

Acral lentiginous melanoma (ALM) is a significant public health concern worldwide because of its rising incidence and poor prognosis.[1,2] It comprises more than 50% of all cutaneous melanomas in Asia, whereas only 2% to 3% of cutaneous melanomas in the West are ALM.[3,4] Furthermore, it has a poor prognosis because delays in the diagnosis result in a thickened lesion at presentation.[5–8] Unlike other subtypes of melanoma, ALM is not associated with sun exposure and tends to develop in weight-bearing areas, such as the heels and metatarsal regions of the foot.[9]

Foot defects after wide excision of ALM have several distinctive features. Resection margin and tissue defect size are determined by the invasion depth of the primary tumor according to the National Comprehensive Cancer Network guideline.[10] Next, uniformly deep defects are created, usually above the first layer of muscles of the foot or the periosteum of the heel. Also, robust and sturdy tissue is required to cover the defect to withstand weight-bearing pressure and shear stress. Lastly, reconstruction should be planned based on the concept of tumor microenvironments to minimize local recurrence risks.

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Various reconstruction methods, such as negative-pressure wound therapy (NPWT), skin grafts, and free flaps, have been proposed.[11–13] However, NPWT requires long healing times and increases the risk for tumorigenesis[14]; skin grafts are inadequate for replacing the glabrous skin and tissue of the plantar foot[15]; and free flaps require microsurgery, which is time-consuming, expensive, and associated with risk in the postoperative period.

The medial plantar artery perforator flap (MPAPF) is a fasciocutaneous flap with fibro-fatty subcutaneous tissue and plantar fascia, which resembles the thick glabrous skin of the plantar foot. It is an optimal option because it replaces "like with like" tissue and can be used for the entire defect in the plantar area. This study reviews the versatility of the MPAPF for patients with a plantar defect after wide excision of ALM. We evaluated the safety and efficacy of the MPAPF according to the subdivision of plantar area.

## METHODS

This study was approved by the institutional review board of our hospital (2105-124-1220) and conducted in accordance with the principles of the Declaration of Helsinki.

The study examined 25 patients who underwent soft tissue reconstruction of the plantar area after wide excision of an ALM between June 2011 and March 2021. We retrospectively collected demographic, intraoperative, and postoperative data from medical records and photographs. We also collected clinical data, including the stage, flap size, defect location, defect size, and prognosis of each patient. The number and type of revision surgeries were also recorded. The types of revision surgeries included delayed flap transfer, pedicle revision, hematoma evacuation, and debridement. Healing time was defined as the period between the operation and when the sutures were removed or dressings were no longer required. Early complications included flap congestion, necrosis, and flap failure, whereas late complications included ulceration, hyperkeratosis, and paresthesia.

We divided the foot into 6 zones based on foot pressure patterns during normal gait (Fig. 1).[16]

### Surgical Technique

Two surgeons (B.J.K. and H.C.) performed the following procedure. The diagnosis of ALM was confirmed with a punch or shave biopsy. All patients subsequently underwent wide excision of the lesion followed by reconstruction with MPAPF. The surgical margin was based on the Breslow thickness according to the National Comprehensive Cancer Network guideline.[10] The recommended surgical margins for in situ melanomas, invasive melanomas less than 1 mm, and invasive melanomas more than 2 mm are 5 m, 10 mm, and 20 mm, respectively. The deep surgical margins for in situ melanomas were subcutaneous layer and for invasive melanomas were calcaneal periosteum or the first layer of foot muscles. Sentinel lymph node (LN) biopsy was performed in young patients or patients with LN involvement suspected by physical examination or imaging, lesions with infiltration depth of 1 mm or more, ulcers, high mitosis.[17]

The pedicle of MPAPF arises approximately a third of the way between the sustentaculum and the metatarsophalangeal joint and then



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# Surgical outcomes of untreated congenital polysyndactyly of the foot in adult patients

Soo Jin Woo, Jinil Choi, Ju Long Hu, Sung Tack Kwon, Byung Jun Kim

Department of Plastic and Reconstructive Surgery, Seoul National University College of Medicine, Seoul, Korea

**Purpose:** Polydactyly of the foot is a common congenital anomaly. The goal of surgery for polydactyly is to increase similarity to the contralateral foot, with a well-aligned arcade of toes that allows patients to wear normal footwear and ambulate painlessly. Foot appearance is especially important in Asian countries where people remove their shoes indoors. This study reviewed the surgical results in patients who underwent surgery for correction of untreated foot polydactyly after the age of 18 years.

**Methods:** We retrospectively analyzed the data of 11 patients who underwent surgery between 2006 and 2019. The forefoot width, angulation difference, and toe length ratios between the affected and unaffected feet were compared before and after the operation. In addition, the purpose of the surgery and postoperative cosmetic satisfaction were collected for each patient.

**Results:** The median age at the time of the operation was 25 years (interquartile range, 22–32 years) and most patients presented with postaxial polydactyly. The primary reasons to undergo surgery were both functional and cosmetic. The forefoot width and angle difference ratios became significantly more similar to the contralateral side postoperatively ($p<0.05$). No significant difference was found in the toe length ratio. Postoperative Global Aesthetic Improvement Scale scores showed satisfactory results.

**Conclusion:** The main reasons for surgery in adulthood included the diverse consequences of functional and cosmetic aspects of the anomaly. Surgery for patients with untreated polydactyly of the foot can yield satisfactory objective and subjective results regardless of the intervention timing.

**Keywords:** Toes, Postaxial, Polydactyly, Polysyndactyly

## Introduction

Polydactyly of the foot is a common congenital anomaly [1]. Surgical methods and prognosis vary depending on the degree and type of polydactyly. Simple deformities require excision of the extra digit, which is possible as early as postnatal period. For cases in which the bones, joints, and ligaments are intricately connected, surgery is performed when general anesthesia is possible [2-4]. In several Asian countries, people take off their shoes before going indoors and rarely wear shoes inside. Therefore, parents from these cultures prefer their children to undergo foot surgery to treat even minor problems as early as possible [5].

The treatment of polydactyly of the foot has been less highlighted than that of the hand because it causes fewer functional problems. However, when left untreated, it can cause developmental delay related to footwear difficulties, psychological problems related to cosmesis [2,6,7]. In this study, we gathered patients with untreated polydactyly of the foot to obtain reasons for deciding to receive treatment as an adult and also investigate the functional and cosmetic results.

Journal Pre-proof

# Proximal Ulnar Reconstruction with an Achilles-Calcaneus Allograft in Revision Total Elbow Arthroplasty: A Case Report

Running title: Achilles-Calcaneus Allograft Proximal Ulnar Reconstruction

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Journal Pre-proof

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Patient consent: Obtained

Article published online: 2022-12-13



# Evolution of Anatomical Studies on the Arterial, Venous, and Lymphatic System in Plastic Surgery

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**Abstract**

Anatomies of the vascular and lymphatic systems have been vital research topics in reconstructive surgery. Harvey was a pioneer who provided the earliest descriptions of the cutaneous vasculature in the 17th century. The concept of vascular territories of the skin was first described by Manchot. The radiographic injection method in cadavers was developed by Salman, who defined more than 80 vascular territories. The arterial system has been thoroughly investigated with the development of regional and free flaps. The concept of axial and random pattern flaps was introduced by McGregor and Morgan. Manchot's vascular territories were refined by Taylor and Palmer as the angiosome concept. Detailed information about the venous circulation is essential for reconstructive surgeries. The concept of intrinsic and extrinsic venocutaneous vascular systems was introduced by Nakajima and led to the development of the venoadipofascial flap. The importance of venous augmentation in flap survival was emphasized by Chang. The lymphatic system was discovered much later than the arterial and venous systems. Aselli was credited for discovering the lacteal vessels in the 17th century; mercury was popularly used as a contrast agent to distinguish lymphatic vessels for the next three centuries. A radiographic method in cadavers was developed by Suami. Lymphatic imaging devices are constantly upgrading, and photoacoustic imaging was recently introduced for three-dimensional visualization of architecture of superficial layers of the lymphatic and venous systems.

**Keywords**

- vascular system
- lymphatic system
- flap
- reconstructive surgery

## Introduction

Reconstructive surgery for tissue defects continues to be a challenging task for surgeons, and local or distant flap transfer is performed in cases wherein the wound cannot be closed by primary wound closure. The first description of flap dates back to 600 B.C., when Sushruta, an Indian physician, documented that cheek flaps were used to reconstruct amputated noses.[1] The word "flap" originates from the 16th century Dutch word "*flappen*" and refers to an object hanging

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| 월 | 날짜 | TITLE | SPEAKER |
|---|---|---|---|
| 1 월 | 4 | W Strategy for the Reconstruction of the Degloved Amputation of the Hand | 우상현 M.D. Ph.D. |
| | 5 | Treatment of osteochondral lesion of talus | 이상현 M.D. |
| | 6 | W Strategy for the Reconstruction of the Degloved Amputation of the Hand | 우상현 M.D. Ph.D. |
| | 11 | ASSH Surgical Videos & Lectures | |
| | 12 | Pediatric supracondylar humeral fractures | 여도현 M.D. |
| | 13 | Skin Graft Techniques | 이종언 PK |
| | 18 | Management of Hand Enchondroma | 최진희 M.D. |
| | 19 | 인연(아프리카 의료봉사활동) - 특강 | 우상현 M.D. Ph.D. |
| | 20 | Management of Hand Enchondroma | 최진희 M.D. |
| | 25 | Replantation | 이호형 M.D. 제주한라병원 |
| | 26 | Reverse Shoulder Arthroplasty | 서재성 M.D. Ph.D. |
| | 27 | Replantation | 이호형 M.D. 제주한라병원 |
| 2 월 | 3 | Case conference | |
| | 8 | Ulnocarpal impaction | 천호준 M.D. |
| | 9 | Revision Total Hip Replacement arthroplasty: Acetabular Cup /<br>Cases of Bone Tumors of Proximal Feir Treated by Curettage & Supplement Fixation | 김성중 M.D. Ph.D. |
| | 10 | ASSH Surgical Videos & Lectures | |
| | 15 | Myotonia | 이효은 M.D. |
| | 16 | AC JOINT arthritis RCT | 박성혁 M.D. Ph.D. |
| | 17 | Volar plate arthroplasty | 김영우 M.D. Ph.D. |
| | 22 | skin graft | 남현재 M.D. |
| | 23 | Microdiscectomy vs sequestrectomy | 이경민 M.D. |
| | 24 | ASSH Surgical Videos & Lectures | |
| 3 월 | 2 | Venous insufficiency | 김상희 M.D. |
| | 3 | ASSH Surgical Videos & Lectures | |
| | 8 | Journal Reviews | 우수진 M.D. |
| | 10 | Intra-articular Impaction fractures of the Phalanges | 강동호 M.D. |
| | 15 | Journal Reviews | 김윤기 PK |
| | 16 | Venous insufficiency | 김상희 M.D. |
| | 17 | fractures of carpal bones other than the scaphoid | 김병진 M.D. |
| | 22 | Management of Posttraumatic Proximal Interphalangeal Joint Contracture | 유명재 M.D. |
| | 23 | Management of Metatarsalgia and Painful Lesser Toe Deformities | 이상현 M.D. |
| | 24 | ASSH Surgical Videos & Lectures | |
| | 29 | Diagnosis and anatomical reconstruction of ECU subluxation | 천호준 M.D. |
| | 30 | Journal Reviews | 조민혁 PK |
| | 31 | Perioperative management to prevent flap partial necrosis | 최진희 M.D. |

| 월 | 날짜 | TITLE | SPEAKER |
|---|---|---|---|
| 4 월 | 5 | Replantation | 김영우 M.D. Ph.D. |
| | 6 | Femoral neck fracture-update | 여도현 M.D. |
| | 7 | ASSH Surgical Videos & Lectures | |
| | 12 | Replantation | 김영우 M.D. Ph.D. |
| | 13 | Longevity of RTSA | 서재성 M.D. Ph.D. |
| | 14 | Journal Reviews | 우수진 M.D. |
| | 19 | Journal Reviews | 김윤기 PK |
| | 20 | Spontaneous Osteonecrosis of Knee | 김성중 M.D. Ph.D. |
| | 21 | ASSH Surgical Videos & Lectures | |
| | 26 | Treatment of Neuromas | 남현재 M.D. |
| | 27 | Type 8 SLAP REPAIR | 박성혁 M.D. Ph.D. |
| | 28 | Fractures of Phalanges | 강동호 M.D. |
| 5 월 | 3 | Fractures of Phalanges | 강동호 M.D. |
| | 4 | 노인환자의 척추수술 | 이경민 M.D |
| | 10 | Microsurgery Training Videos | |
| | 11 | Knee Lat meniscus instability | 김상희 M.D |
| | 12-13 | Microsurgery Training Videos | |
| | 17 | Microsurgery Training Videos | |
| | 18 | Lesser Toe Disorders and Metatarsalgia | 이상현 M.D |
| | 19-20 | Microsurgery Training Videos | |
| | 24 | Journal Reviews | 박광현 M.D |
| | 25 | 자가항체의 해석 | 이유진 M.D |
| | 26 | ASSH Surgical Videos & Lectures | |
| | 31 | The Stiff Finger | 최진희 M.D |
| 6 월 | 2 | 1st CMC joint Instability | 천호준 M.D. |
| | 7 | Case Conference | |
| | 8 | Fractures of the talus | 여도현 M.D. |
| | 9 | Journal Reviews | 박광현 M.D. |
| | 14 | Journal Reviews | 우수진 M.D. |
| | 15 | Scapulothoracic Dyskinesis A Concept Review | 서재성 M.D. Ph.D. |
| | 16 | ASSH Surgical Videos & Lectures | |
| | 21 | Skin graft | 남현재 M.D. |
| | 22 | Bone Healing & Stability of Fracture | 김성중 M.D. Ph.D. |
| | 23 | Techniques and Fixation of Metacarpal Fractures | 강동호 M.D. |
| | 28 | Journal Reviews | 박광현 M.D. |
| | 29 | Bone Healing & Stability of Fracture | 김성중 M.D. Ph.D. |
| | 30 | ASSH Surgical Videos & Lectures | |

| 월 | 날짜 | TITLE | SPEAKER |
|---|---|---|---|
| 7 월 | 5 | Kienbock Disease | 김병진 M.D. |
| | 6 | AS type massive RCT | 박성혁 M.D. Ph.D. |
| | 7 | ASSH Surgical Videos & Lectures | |
| | 12 | Journal Reviews | 이원석 M.D. 영남대학교 성형외과 R3 |
| | 13 | ULBD | 이경민 M.D. |
| | 14 | The Treatment of Dupuytren's contracture | 유명재 M.D. |
| | 19 | CTS | 우상현 M.D. Ph.D. |
| | 20 | CuTS | 우상현 M.D. Ph.D. |
| | 21 | 대한말초신경수술학회 예행 발표 | 우수진 M.D. / 박광현 M.D. |
| | 26 | Anterior interosseous nerve to Ulnar nerve transfer | 이원섭 M.D |
| | 27 | Cardiopulmonary Resuscitation | 설동환 M.D. |
| | 28 | ASSH Surgical Videos & Lectures | |
| 8 월 | 2 | Journal Reviews | 우수진 M.D. |
| | 3 | Nonunion Treatment Teriparatide and ESWT | 김상희 M.D. |
| | 4 | Scar management | 최진희 M.D. |
| | 9 | Osteoarthritis of the wrist | 천호준 M.D. |
| | 10 | Hallux valgus deformity: Minimal Invasive Chevron & Akin | 이상현 M.D. |
| | 11 | Osteoarthritis of the wrist | 천호준 M.D. |
| | 16 | Case Conference | |
| | 17 | UKA-introduction | 여도현 M.D. |
| | 18 | ASSH Surgical Videos & Lectures | |
| | 23 | Journal Reviews | 박광현 M.D. |
| | 24 | Diagnosis and Management of Partial Thickness Rotator Cuff Tears: A Comprehensive Review | 서재성 M.D. Ph.D. |
| | 25 | The Conservative Treatment of Some Hand and Carpal Fractures (Clinics 2022) | 남현재 M.D. |
| | 30 | Motor nerve를 이용한 motor nerve reconstruction | 김영우 M.D. Ph.D. |
| | 31 | Techniques for Minimizing Sedation in Pediatric MRI | 이지현 M.D. |
| 9 월 | 6 | Journal Reviews | 우수진 M.D. |
| | 7 | External Fixation for Lower Extremity Trauma | 김성중 M.D. Ph.D. |
| | 8 | RDA perforator flap for the thumb defect – Surgical techniques | 강동호 M.D. |
| | 13 | Case conference | |
| | 14 | Type 8 SLAP lesion | 박성혁 M.D. Ph.D. |
| | 15 | ASSH Surgical Videos & Lectures | |
| | 20 | Acute distal radioulnar joint instability | 김병진 M.D. |
| | 21 | 골프와 허리 | 이경민 M.D. |
| | 22 | ASSH Surgical Videos & Lectures | |
| | 27 | Journal Reviews | 박광현 M.D. |
| | 28 | Journal review JBJS osteoporosis, hip fracture, peri-op FA med | 김상희 M.D. |
| | 29 | Toe-to-Hand Transfer | 유명재 M.D. |

| 월 | 날짜 | TITLE | SPEAKER |
|---|---|---|---|
| 10 월 | 4 | Case conference | |
| | 5 | Treatment of Coronal shear fracture | 신동주 M.D. |
| | 6 | Pediatric distal radius fracture | 천호준 M.D. |
| | 11 | Case conference | |
| | 12 | Elbow fracture dislocation | 신동주 M.D. |
| | 13 | ASSH Surgical Videos & Lectures | |
| | 18 | Journal Reviews | 우수진 M.D. |
| | 19 | Complex ankle fracture | 이상현 M.D. |
| | 20 | 엄지다지증 | 우상현 M.D. Ph.D. |
| | 25 | 대한미세수술학회 예행 발표 | |
| | 26 | Hemiarthroplasty for Proximal humerus fractures | 신동주 M.D. |
| | 27 | Lambda repair of extensor lateral bands for correction of boutonniere deformity / PIP joint denervation – an alternative management for osteoarthritis | Prof. Yu-Te Lin |
| 11 월 | 1 | Review - 대한수부외과학회 추계학술대회 | 강동호 M.D. / 남현재 M.D. |
| | 2 | How to approach Coronoid Fractures | 신동주 M.D. |
| | 3 | Review - 대한수부외과학회 추계학술대회 | 김병진 M.D. / 우수진 M.D. |
| | 8 | Review - 대한수부외과학회 추계학술대회 | 남현재 M.D. / 유명재 M.D. |
| | 9 | The three-column concept of elbow joint stability and the Wightington elbow fracture - dislocation classification | 서재성 M.D. Ph.D. |
| | 10 | W Strategy for the Reconstruction of the Degloving Amputation of the Hand | 최진희 M.D. |
| | 15 | Review - 대한수부외과학회 추계학술대회 | 유명재 M.D. |
| | 16 | Approach of Scapular Fractures | 신동주 M.D. |
| | 17 | Review - 대한수부외과학회 추계학술대회 | 박광현 M.D. / 우수진 M.D. |
| | 22 | How the Microsurgical Fellowship has shaped the Hand Surgeon | Yong Chiang Kang M.D. Singapore General Hospital |
| | 23 | My own Osteotomy, Gap Filling and Fixation Techniques of Medial Open Wedge High Tibial Osteotomy(MOWHTO) | 김성중 M.D. Ph.D. |
| | 24 | Review - 대한수부외과학회 추계학술대회 | 강동호 M.D. / 남현재 M.D. / 김병진 M.D. |
| | 29 | Lymph anatomy | 우수진 M.D. |
| | 30 | AS type massive RCT | 박성혁 M.D. Ph.D. |
| 12 월 | 1 | ASSH Surgical Videos & Lectures | |
| | 6 | 지역응급의료발전을 위한 2차 병원의 역할 | 김영우 M.D. Ph.D. |
| | 7 | Treatment options for clavicle fractures | 신동주 M.D. |
| | 8 | Surgical Treatment Strategies for Injuries of the "Unforgiving" Superficial Branch of the Radial Nerve | 남현재 M.D. |
| | 13 | Toe-to-Hand Transfer: Refinement &Evolution | 우상현 M.D. Ph.D. |
| | 14 | Venous Flaps for Hand Reconstruction | 우상현 M.D. Ph.D. |
| | 15 | Microsurgical Reconstruction of the Hand and Upper Extremities with Various Free Flaps | 우상현 M.D. Ph.D. |
| | 20 | Long-term Fate of Denervated Skeletal Muscle After Microvascular Flap Transfer | 강동호 M.D. |
| | 21 | Cervical laminoplasty | 이경민 M.D. |
| | 22 | ASSH Surgical Videos & Lectures | |
| | 27 | Preiser's disease – Current Concepts of Etiology and Management | 김병진 M.D. |
| | 28 | Open wedge high tibial osteotomy | 김민극 M.D. |
| | 29 | Management of Total paralysis of the Brachial Plexus | 유명재 M.D. |

# 의료진 학회 참석 및 발표

| 날짜 | 내용 | 참석자 |
|---|---|---|
| 2022. 03. 05 | 제18회 Shoulder Camp 영남견주관절연구회<br>- Rotator cuff tear | 서재성 의무원장 |
| 2022. 05. 12 | 영남대학교 의과대학 초청 특강<br>- 손 수술만 하는 성형외과 의사의 길 | 우상현 병원장 |
| 2022. 05. 20 | 2022 대한성형외과학회 The 12th R&R Forum<br>- 수부 탈장갑 절단 손상에서 재건술의 전략 | 최진희 부장 |
| 2022. 05. 20<br>~ 05. 21 | 2022 대한족부족관절학회 춘계학술대회<br>- 활동 시 발생하는 좌측 종아리 통증을 주소로 내원한 57세 남자 환자 | 이상현 부장 |
| 2022. 05. 28<br>~ 05. 29 | 2021 대한미세수술학회-대한수부외과학회 합동심포지엄<br>- 초심자를 위한 천공지 피판의 거상술<br>- 수근 불안정성은 잘 치료해도 결과가 별로라던데 정말인가요?<br>- 수지접합에 쓰이는 유용한 방법 및 각 방법 사용시 고려할 점들<br>- 유구골 갈고리 골절 및 체부 골절<br>- 유착된 건에 대해 박리술을 시행할 때 주의할 점은 무엇일까요? | <br>우상현 병원장(좌장)<br>서재성 의무원장(좌장)<br>김영우 원장<br>유명재 원장<br>최진희 부장 |
| 2022. 07. 23 | 전주 수병원 특강<br>- 손 수술만 하는 성형외과 의사의 꿈 | <br>우상현 병원장 |
| 2022. 07. 25 | 2022 대한말초신경수술학회<br>- Symposia IV Case Debate<br>- Clinical Prevalence of Persistent Median Artery Accompanied in Carpal Tunnel Release Patients<br>- Clinical Guidelines and Surgical Indication for Cubital Tunnel Syndrome with Normal Electrodiagnostic Studies | <br>우상현 병원장(좌장)<br>박광현 과장<br>우수진 과장 |
| 2022. 09. 22 | 서울아산병원 특강<br>- W Strategy in Radial Polydactyly Operation | 우상현 병원장 |
| 2022.09. 28 | 대한류마티스학회 대구경북지회 2022년 2차 집담회<br>- 수부외과 의사와 함께 치료하는 류마티스 손의 변형 | 우상현 병원장 |
| 2022. 10. 22 | 제6회 대한견주관절의학회 경상지회 학술대회<br>- 런처 심포지움<br>- Subscapularis leading edge tear : Repair vs debridement | <br>서재성 의무원장(좌장)<br>신동주 원장 |
| 2022. 10. 29 | 제41차 대한미세수술학회 추계학술대회<br>- Lymphedema 1. Special Issues in Lymphedema Surgery<br>- Replantation<br>- Free Paper 3. Upper Extremities<br>- The reconstructive strategies for the degloved hand<br>- Forearm replantation<br>- Finger pulp reconstruction using RDA-based perforator flap<br>- Anatomical study of perforators of peroneal artery with color Doppler ultrasonography | <br>우상현 병원장(좌장)<br>서재성 의무원장(좌장)<br>김영우 원장(좌장)<br>유명재 원장<br>김영우 원장<br>박광현 과장<br>우수진 과장 |
| 2022. 11. 06 | 2022 제46차 한국통증중재시술연구회 심포지엄<br>- Surgical operation of carpal tunnel syndrome<br>(수술을 delay 시킨다면? 언제 surgical operation이 필요한가?) | <br>우상현 병원장 |
| 2022. 11. 05<br>~ 11. 06 | 2022 대한수부외과학회 추계학술대회 및 연수강좌<br>- Panel 1 (Hand Transplantation)<br>- Harmony with Senior and Young Surgeon 1<br>- The results of arthroscopic bone graft and fixation for scaphoid nonunion<br>- Customized Toe-to-hand Transfer with a Simultaneous Reconstruction of the Donor foot<br>- Correction of Congenital Syndactyly of the Hand with Minimal Full-Thickness Skin Graft from the Weight-bearing Lateral Plantar Area: Review of 106 webs<br>- 수부이식의 5년 경과<br>- Hybrid fixation for unstable proximal phalangeal fractures | <br>우상현 병원장(좌장)<br>서재성 의무원장(좌장)<br>김병진 부장<br>유명재 원장<br>우수진 과장<br><br>김영우 원장<br>강동호 원장 |
| 2022. 11. 13<br>~ 11. 03 | 2022 대한성형외과학회(PRS KOREA 2022)학술대회<br>- Hand 3. Challenging Problems of the Hand<br>- W Strategy for the Reconstruction of the Degloving Amputation of the Hand<br>- The Effect of Epiphysiodesis for Children with Macrodactyly Based on Long Term Quantitative Analysis | <br>우상현 병원장(좌장)<br>최진희 부장<br>우수진 과장 |

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