



KUOS 뉴스레터

The Korean Urological Oncology Society

Vol. No 2016_2

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Q 학술대회 초대의 글



비뇨기종양학회 회원 여러분 안녕하십니까?

올해는 유난히도 빨리 여름이 시작되어 벌써 더위가 성큼 다가왔습니다.

2016년 8월 27일 부산 해운대 백병원에서 개최되는 제29회 대한비뇨기종양학회 정기학술대회에 회원 여러분을 초대하게 되어 기쁘게 생각합니다.

작년에 시행하려다 메르스 발생으로 못했던 워크숍을 비뇨기종양학회의 자문위원, 원로회원과 젊은 회원을 모시고 5월 말에 진료지침 워크숍을 전북 남원에서 성황리에 마쳤습니다. 열띤 토론과 함께 회원 여러분의 학회에 대한 관심과 열정을 확인할 수 있었습니다. 지면으로나마 감사를 드립니다.

우리 비뇨기종양학회의 정기 학술대회는 매년 새로운 지식과 정보, 연구 결과를 제공하고 공유하는 장으로서, 학문적 토의와 논쟁을 통한 발전의 공간으로서 그 역할을 충실히 해왔습니다. 지난 학술대회를 통해 회원들의 적극적인 참여와 노력은 비뇨기종양 연구 및 학문적 발전의 밑거름으로써 우리 학회의 가장 큰 자랑이자 역사라고 자부합니다.

이번 학술대회는 비뇨기종양 전반에 걸쳐 국내외에서 활발히 활동하고 연구하시는 분들을 좌장 및 연자, 패널로 모시고 비뇨기종양 분야의 이슈를 토론하고 정리할 수 있는 시간이 되실 것이라고 생각합니다. 또한 Podium Session은 지난 1년 동안 회원 여러분들이 비뇨기종양 분야에 불철주야 연구하신 성과를 발표하고 서로 토의할 수 있는 유익한 자리가 되리라 생각합니다.

이번 학술대회가 유익한 정보를 서로 공유하며 학문적 발전을 도모하고, 회원 여러분의 소통과 교제의 장이 될 수 있기를 바라며 회원 여러분의 적극적인 성원과 참여를 부탁드립니다. 아울러 무더운 여름철에 회원 여러분의 가정에 건강과 행복이 함께하시길 기원합니다.

감사합니다.

2016년 6월
대한비뇨기종양학회 회장 김형진

Q 2016년 제29회 대한비뇨기종양학회 정기학술대회



- 일시: 2016. 8. 27. 토
- 장소: 해운대 백병원

| | | |
|-------------|--|------------------|
| 08:30-09:00 | Registration | |
| 09:00-09:05 | President's Welcome | 대한비뇨기종양학회 회장 김형진 |
| 09:05-09:10 | Congratulatory Remarks | 대한비뇨기과학회 회장 주명수 |
| 09:10-09:15 | Congratulatory Remarks | 인제의대 교수 박석산 |
| 09:15-10:05 | Podium Session I: Prostate Cancer | |
| 10:05-10:35 | Special Lecture | |
| | Single Cell Genomics | |
| 10:35-10:50 | Coffee Break | |
| 10:50-12:00 | Symposium I : Management of Bladder Cancer | |
| | 1) Emerging Therapies for Non Muscle Invasive Bladder Cancer | |
| | 2) Risk-based Neoadjuvant Chemotherapy in MIBC? | |
| | 3) Future Directions in Bladder Cancer Immunotherapy | |
| | Panel Discussion: Case Based Approach | |
| 12:00-13:10 | 진료지침 발간 기념식 및 전체 사진 촬영 | |
| | Lunch | |
| 13:10-13:30 | 연수보고회 | |
| 13:30-13:50 | Project 2015 Report / 2016 Proposal | |
| 13:50-14:40 | Podium Session II: Bladder and Renal Cancer | |
| 14:40-15:00 | Coffee Break | |
| 15:00-15:50 | Podium Session III: Prostate Cancer | |
| 15:50-16:50 | Symposium II : Management of Prostate Cancer | |
| | 1) Active Surveillance for Prostate Cancer: Good Idea or Lost Opportunity? | |
| | 2) Treatment for Pelvic Nodal Relapse after Radical Prostatectomy | |
| | 3) Chemotherapy in Hormone-na ve Prostate Cancer? | |
| | 4) Management of Non-metastatic CRPC | |
| 16:50-17:20 | 2016 KUOS Annual Business Meeting | |
| 17:20-17:30 | 학술상 시상 및 폐회사 (Adjourn) | |

🔍 2016년 제1차 비뇨기종양학회 학술집담회



[2016년도 제1차 비뇨기종양학회 학술집담회]

일 정 안 내

- 일시 : 2월 26일(금) 17:50~19:00
- 장소 : 경북대학교병원 6병동 10층 대강당

| | | |
|-------------|---|----------------------------------|
| 17:50~18:00 | 개회사 및 인사말 | 대한비뇨기종양학회 김형진 회장 |
| 18:00~18:20 | Management of complications after surgical treatment of RCC | 좌장: 김형진 (전북의대) 연자: 한준현 (한림의대) |
| 18:20~19:00 | Case Discussion Panels: 강석호 (고려의대), 서성일 (성균관의대), 전승현 (경희의대), 한준현 (한림의대) | 진행: 정병창 (성균관의대) |
| 19:00 | 폐회사 | 대한비뇨기종양학회 김형진 회장 |

대한비뇨기종양학회 회장 김 형 진



정병창

2016년 2월 26일 대한비뇨기종양학회 제1차 집담회

증례 토의

성균관대 정병창

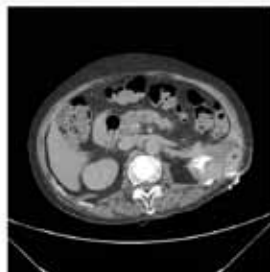
2013.11.28 OPD F/U (POD #15)

외과병리검사 결과보고

- ▶ **Angiomyolipoma** 1) size : 1.2x1.1cm
- 2) negative resection margin (safety margin: 0.4cm)

▶ Lab : wnl

▶ Wound healing 되지 않아, 연고지병원에서 소독중



F / 54

Chief complaint

fatigue, anorexia (onset: 1 month ago)

Present illness

1개월 전부터 피곤하고, 밥맛 없는 증상을 호소

외부병원 복부 초음파 검사에서 Lt renal mass 발견됨
복부CT 검사에서 s/o Lt RCC 소견으로 본원 내원함

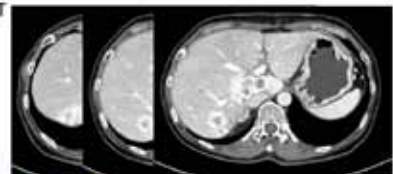


POD # 4개월 9일 OPD F/U

Chest CT

- ▶ Improved hematoma in pericardial space
- ▶ No interval change since the last CT

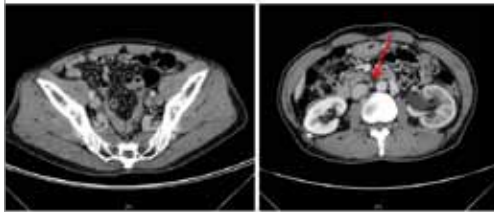
AP-CT



▶ Palliative Pazopanone start

Case 4

- M/68, Lt distal ureter tumor
- Lt laparoscopic nephroureterectomy with LN dissection



Autotransplantation of rt. kidney



M / 75

Chief complaint

Incidentally detected renal mass, left (onset: 2 month ago)

Present illness

2013.08.28 외부병원에서 시행한 TRUS Bx에서 prostate cancer (PSA 8.3, adenocarcinoma, Right 3core positive, GS 3+4) 진단받음

staging w/u으로 시행한 AP-CT에서 Lt renal mass 발견되어 본원 내원함

* prostate cancer에 대해서는 외부병원에서 호르몬 치료만 받기로함

Past surgico-medical history

• HTN/DM/Tbc/Hepatitis (-/-)

• Pneumoconiosis

• 36년 전, 탄광에서 골루로 일함

• Operation history (+)

• 기흉수술 7회

• 2013년 우측 폐 부분절제술

• Social Hx.

• Smoking (-): 15년 전 금연

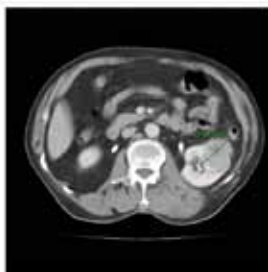
• Alcohol (-)

• Family Hx.

• None

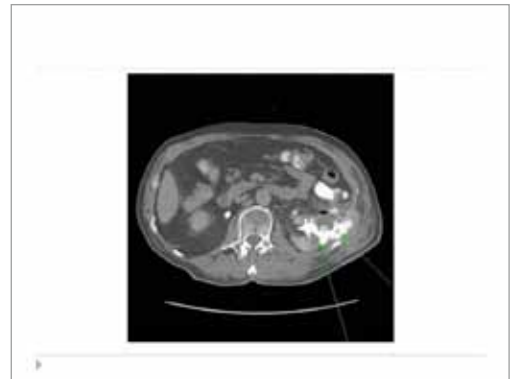
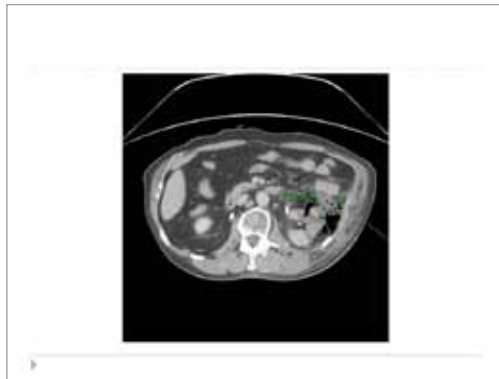


R/O PMR (progressive massive fibrosis) with underlying pneumoconiosis



2013.12.04 s/p US guided kidney Bx.

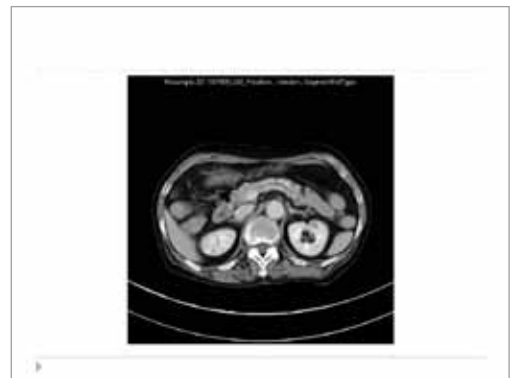
s/p CT guided percutaneous RFA
(under mask with TIVA)



F / 76

Chief complaint
Intermittent LUQ pain (onset: 2 month ago)

Present illness
2개월 전부터 간헐적으로 좌측 상복부 통증을 호소
외부병원에서 복부 초음파 검사 및 CT검사 시행 후 Lt renal mass 발견되어 본원 내원함



한준현

Management of complications after surgical treatment of RCC

Hallym University Dongtan Sacred Heart Hospital
Han, Jun Hyun M.D., Ph.D.

Laparoscopy and Robotics

Perioperative Complications of Robot-assisted Partial Nephrectomy: Analysis of 886 Patients at 5 United States Centers

Youssef S. Tanouho, Jihad H. Kasab, Mohamed E. Allal, Craig G. Rogers, Michael D. Stillman, Bartosz F. Kaczmarek, Shahab P. Hilmyer, Jeffrey K. Mullins, Yichun Chiu, and Sam B. Bhayani

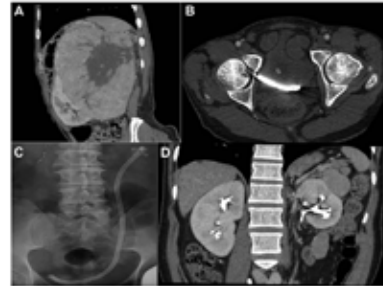
- June 2007 to November 2011, 886 patients at 5 United States centers underwent RAPN
- Intraop: 23 pts (2.6%)
- Postop. : 115 pts (13.0%)
- 43 (30.9%) were classified as Clavien 1; 64 (46.0%), Clavien 2; 21 (15.1%), Clavien 3; 11 (7.9%), Clavien 4.
- No complication-related deaths occurred.

Complications After Robotic Partial Nephrectomy at Centers of Excellence: Multi-Institutional Analysis of 450 Cases

Gregory Spana, Georges-Pascal Haber,* Lori M. Dulabon, Firas Petros, Craig G. Rogers, Sam B. Bhayani,* Michael D. Stifelman† and Jihad H. Kaouk‡,§

- A total of 450 consecutive robotic assisted partial nephrectomies between June 2006 and May 2009.
- Overall complication 71 patients (15.8%)
- Intraoperative : 8(1.8%)
- Postoperative : 65 (14.4%)
- Conversion to RN: 7 (1.6%)

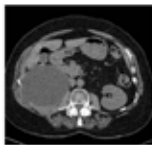
Prolonged Urinary Leakage After Partial Nephrectomy: A Novel Management Pathway



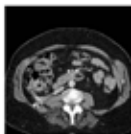
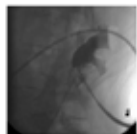
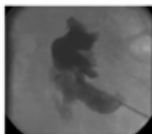
UROLOGY 83: 485e488, 2014

Glue ablation of a late-presentation urinary fistula after partial nephrectomy

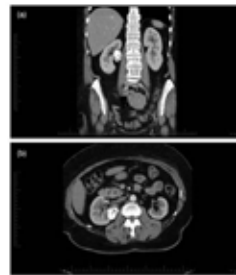
The British Journal of Radiology, 82 (2009), e248-e248



- A 57-yr-woman, an right lower pole partial nephrectomy for clear cell RCC.
- After 1 yr., a 10 cm urinoma anterior to the rt kidney compressing the UPJ and upper ureter.
- PCN, D-J stent → continuous drainage
- Under LA and fluoro, Histoacryl glue (B Braun, Germany) was injected using a catheter. 6 ml of a 50:50 Histoacryl/lipiodol mixture



Malrotated kidney as a complication of partial nephrectomy



53-yr- woman c DM, HT
L assisted OPN
CT : 48 mm, posterior, central & endophytic in RK
Complete mobilization of the right kidney and the operation was otherwise routine.
Urine leak requiring ureteric stent POD 5.
Discharged on POD 9.

Hemorrhage

At different points during the case

- Hilar dissection
- Tumor resection
- Clamping removal
- Immediate or delayed posop period

Arterio-caliceal fistula and superselective embolization



Bowel injury

- Can be a **serious complication**, particularly if **unrecognized**.
- **Incidence** of laparoscopic bowel injury during urologic surgery was **0.13%** (266/205,969 cases),
- of which, **69% were unrecognized** at the time of surgery.

Rhabdomyolysis

- Due to **compression** related to **prolonged positioning**.
- Risk factors include **male sex, high body mass index, prolonged operative times, and the lateral decubitus position**.
- Suspected when a patient reports **discrete musculoskeletal pain** immediately upon recovering from anesthesia.

Rhabdomyolysis

- **acute renal failure** (occurring in 4%-33% of patients), **compartment syndrome**, **cardiac dysrhythmias** via **electrolyte abnormalities, and DIC**.
- Management includes **iv fluid hydration** with the initiation of sodium bicarbonate therapy for **urine alkalinization** in order to prevent myoglobin deposition in the glomeruli and progressive nephropathy.

Conclusions

- **Partial nephrectomy remains a challenging operation that requires considerable experience**.
- **PN is a time sensitive procedure that requires more than 1 pair of skilled hands (bedside vascular control and suction)**.
- **As a result, maximizing the success of partial nephrectomy is important**.

<http://www.kuos.or.kr>

The 14th KUOS Multidisciplinary Conference

일시: 2016년 3월 26일(토) 08:30-17:40

장소: 차의대 바이오컴플렉스

평점: 대한의사협회 4점

안녕하십니까?

2016년 3월 26일 차의대 바이오컴플렉스에서 개최되는 14회 Multidisciplinary Conference에 여러분을 초대합니다.

Multidisciplinary Conference는 지난 10여년 간 비뇨기종양의 진단 및 치료에 대해 여러 과 선생님들을 모시고 깊이 있는 토론의 장으로서 발전해왔습니다. 올해에도 전립선암과 신장암을 주제로 최신지견과 생동감 있는 토론이 이루어지도록 준비하였습니다.

이번 Conference는 "RCC: updates", "localized and locally advanced RCC", "updates of prostate cancer", 및 "metastatic prostate cancer" 라는 주제로 전문지식을 넓히고 각 과 선생님들과 함께 실제 증례를 중심으로 열띤 학술 토론의 장이 될 것을 기대합니다.

특히 해외연자로 영국의 Noel Clarke 교수가 호르몬-순응 전이성 전립선암에서의 초기항암치료에 대한 최신지견을, 미국의 Isaac Y. Kim 교수가 신장암에서 androgen signaling의 역할에 대한 최신지견을 발표해 주실 예정입니다.

14회를 맞이하는 Multidisciplinary Conference에 여러 저명하신 교수님들을 초빙하여 우리 대한비뇨기종양학회 회원들과 교류 및 공동연구의 방향을 모색하고자 합니다. 이번 학술대회를 계기로 비뇨기종양을 연구하시는 여러 과 선생님들의 학술적 교류가 더욱 활발해지는 계기가 되기를 기원합니다. 경험이 많으신 회원님들의 적극적 참여와 지도를 부탁드립니다.

2016년 한해도 회원 여러분들의 건강과 발전이 함께하시기를 기원합니다.

대한비뇨기종양학회 회장 김 형 진

| | | |
|-------------|---|---|
| 08:30-09:00 | Registration | |
| 09:00-09:05 | President's Welcome | 대한비뇨기종양학회장 김형진 |
| 09:05-09:10 | Congratulatory Remarks | 대한비뇨기과학회장 주명수 |
| 09:10-10:30 | Symposium (I): RCC: Updates | 좌장: 김홍섭 (건국의대) / 성경탁 (동아의대) |
| | 1. Variant histologic forms of RCC | 문경철 (서울의대) |
| | 2. MR imaging in RCC | 성득제 (고려의대) |
| | 3. Renal biopsy: when should it be used? | 황의창 (전남의대) |
| | 4. Immunotherapy with programmed cell death inhibitor drugs: who achieve durable response? | 김범석 (서울의대) |
| 10:30-10:50 | Coffee break | |
| 10:50-12:10 | Consensus meeting (I): Localized and locally advanced RCC | 좌장: 권동득 (전남의대) / 송기학 (충남의대) |
| | 1. Optimal management for T1b renal cancer in patients with normal GFR | 강성구 (고려의대) |
| | 2. Management of adrenal gland in patient with RCC | 김선일 (아주의대) |
| | 3. The role of lymphadenectomy in patient with RCC | 이동현 (이화대의대) |
| | Panel Discussion | |
| | 증례 진행: 강성구 (고려의대) | |
| | 패널: 김범석, 김선일, 문경철, 성득제, 황의창 | |
| 12:10-13:40 | Luncheon Symposium 및 이사회 | 좌장: 김형진 (전북의대) |
| | Initial chemotherapy in metastatic hormone-sensitive prostate cancer | |
| | Noel Clarke (Department of Urology, Christie Clinic, Manchester, UK) | |
| 13:40-15:00 | Symposium (II): Updates of prostate cancer | 좌장: 박동수 (차의대) / 박홍석 (고려의대) |
| | 1. Prognostic significance of the updated International Society of Urological Pathology (ISUP) grading system | 권기영 (성균관대의대 병리과) |
| | 2. MR-fusion biopsy: usefulness & clinical application | 이학중 (분당서울대병원 영상의학과) |
| | 3. The role of PET-CT in prostate cancer | 민정준 (전남의대 핵의학과) |
| | 4. Role of hormonal therapy in adjuvant and salvage radiotherapy | 김태환 (경북의대) |
| 15:00-15:30 | Invited Lecture | 좌장: 조진선 (한림의대) |
| | Role of androgen signaling in renal cell carcinoma | Isaac Y. Kim (New Jersey Cancer Center) |
| 15:30-15:50 | Coffee break | |
| 15:50-17:10 | Consensus meeting (II): metastatic prostate cancer | 좌장: 안한중 (울산의대) / 조문기 (원자력병원) |
| | 1. Oligo-metastatic prostate cancer: Definition and treatment | 정승일 (전남의대) |
| | 2. Chemotherapy in CRPC | 박세훈 (성균관대의대 혈액종양내과) |
| | 3. CRPC guideline | 박인근 (가천의대 혈액종양내과) |
| | Panel Discussion | |
| | 증례: 진행 정승일 (전남의대) | |
| | 패널: Isaac Y. Kim, 권기영, 권동득, 민정준, 박세훈, 박인근, 이제련, 이학중, 전성수 | |
| 17:10-17:40 | 총회 | |
| 17:20-17:30 | 학술상 시상 및 폐회사 (Adjourn) | |



문경철

Changed Entities

Collecting duct carcinoma
Carcinoma of collecting duct of Bellini

Rare: less than 1%
Medullary location
Poorer prognosis than other common types

Multilocular cystic renal neoplasm of low malignant potential (ICD-O 8316/1)

- Multilocular cystic RCC
- Same genetic features to Clear cell RCC
 - 3p deletion, VHL mutation
- Very good prognosis
- No expansile carcinoma nodules

MIT (microphthalmia transcription factor) family translocation RCC

Xp11.2 translocation RCC and t(6;11) RCC

t(6;11) RCC

- Approximately 30 cases
- Biphasic morphology: larger and small cells
- TFE3+, Melan-A/HMB45+

TABLE 2. Test Cases Near Proven to Have TFE3 Rearrangement

| Case # | Age Sex | Site/Stage | Distinctive Features of Case | TFE3 IHC | Average % TFE3 Nuclei Stained | Melan A (HMB45) | Small Cell/RC |
|--------|---------|--|---------------------------------|----------------------------|-------------------------------|-----------------|---------------|
| 1 | 34/F | RA | None | +/- (weak with gradient) | 45.8 | + (focal) | +/- |
| 2 | 37/M | RA | Extensively fasciculated, solid | + | 75.8 | + (focal) | +/- |
| 3 | 38/F | Transfemoral | Masses clear cell RCCs | +/- (focal) | 46 | +/- | +/- |
| 4 | 38/F | Transfemoral | Cystic masses, clear | +/- (focal with gradient) | 33.8 | + (focal) | None |
| 5 | 40/M | Transfemoral | None | +/- (focal with gradient) | 36.7 | +/- | +/- |
| 6 | 46/M | 14.5 cm of tumor, 100 (low metastasis, IVC thrombus) | Endothelial papillary | + | 38.8 | +/- | None |
| 7 | 36/M | Uterus | ESR2, massive necrosis, solid | + | 38.8 | +/- | +/- |
| 8 | 20/M | Uterus | Cystic, necrotic, solid | + (moderate with gradient) | 76.2 | + (focal) | None |

RC indicates features resembling renal cell carcinoma; ESR2, end-stage renal disease; IVC, inferior vena cava; RA, not available.

(Am J Surg Pathol 2012;36:1516-1526)

| | |
|--|---------|
| Renal cell tumours | |
| Clear cell renal cell carcinoma | 8310/3 |
| Multilocular cystic renal neoplasm of low malignant potential | 8316/1* |
| Papillary renal cell carcinoma | 8260/3 |
| Hereditary leiomyomatosis and renal cell carcinoma-associated renal cell carcinoma | 8311/3* |
| Chromophobe renal cell carcinoma | 8317/3 |
| Collecting duct carcinoma | 8319/3 |
| Renal medullary carcinoma | 8510/3* |
| MIT family translocation renal cell carcinomas | 8311/3* |
| Succinate dehydrogenase-deficient renal carcinoma | 8311/3 |
| Mucinous tubular and spindle cell carcinoma | 8480/3* |
| Tubulocystic renal cell carcinoma | 8316/3* |
| Acquired cystic disease-associated renal cell carcinoma | 8316/3 |
| Clear cell papillary renal cell carcinoma | 8323/1 |
| Renal cell carcinoma, unclassified | 8312/3 |

황의창

Traditional Ix vs. Expanded Ix

- to make a pathologic diagnosis in the case of renal mass with other primary malignancy
- to confirm a case of suspected infection in a renal mass (e.g. abscess)
- RCC must be differentiated from renal lymphoma
- for histological diagnosis of radiologically indeterminate or small renal masses
- to obtain histology before ablative treatments
- Follow up of thermal ablation
- to select the most suitable form of targeted pharmacologic therapy in the setting of metastatic disease
- Patient with history of malignancy

Campbell 11th ed p1217

J Urol 2008;179:1002
J Urol 2008;180:1205
Eur Urol 2008;53:1020
Eur Urol 2014;66:510

Guidelines

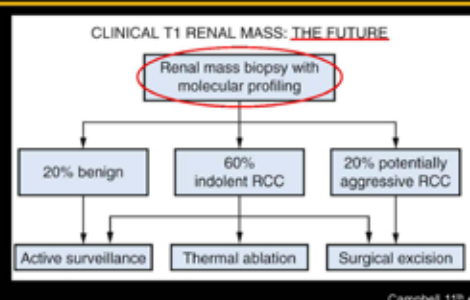
- EAU
 - recommends RMB prior to surveillance, ablation, and systemic therapies while discouraging its use for masses managed surgically
- NCCN
 - small lesions may be considered to obtain or confirm a diagnosis of malignancy and guide surveillance, cryosurgery, and radiofrequency ablation strategies
- AUA
 - only recommended prior to ablation or in patients with traditional indications

J Urol 2008;180:1217
Eur Urol 2008;53:1020
NCCN 2016 ver 2.0

Should a biopsy be done on all small Solid Renal Masses (SRM)?

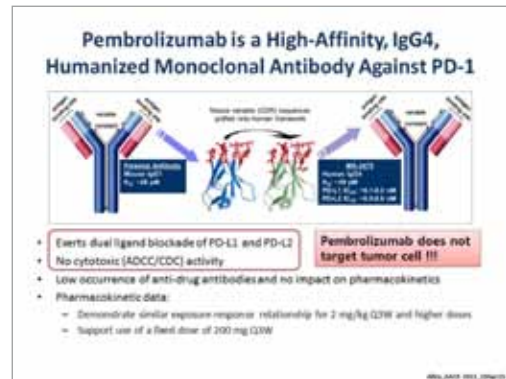
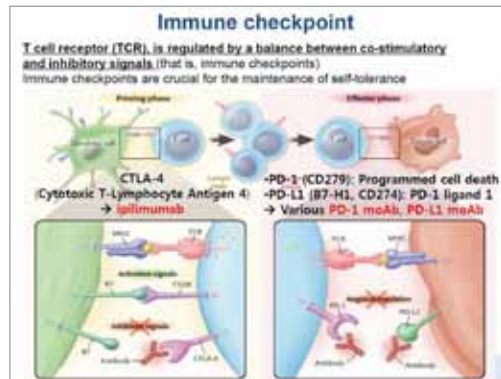
- | | |
|---|--|
| Pros <ul style="list-style-type: none"> - Biopsies are commonly done prior to intervention for other tumors (breast, prostate, ureter, bladder, etc) - Confirmatory biopsy will avoid unnecessary procedures on benign masses - Determine efficacy of TA - Targeted therapies may (FUTURE) be tumor specific | Cons <ul style="list-style-type: none"> - Kidney tumors are well characterized radiographically - Great majority are NOT benign (size dependent) - Biopsies not 100% accurate - When confirmatory the results didn't change the plan - Avoids the need for 2 procedures - Biopsy can alter surgical field |
|---|--|

Conclusions



Campbell 11th ed

김범석



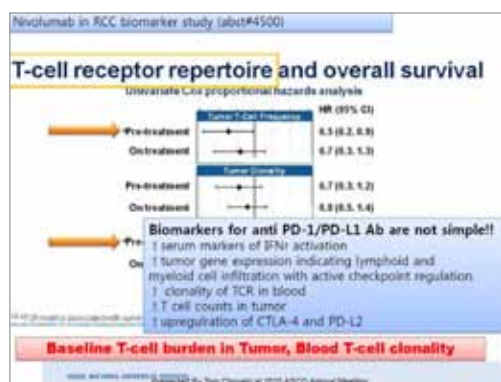
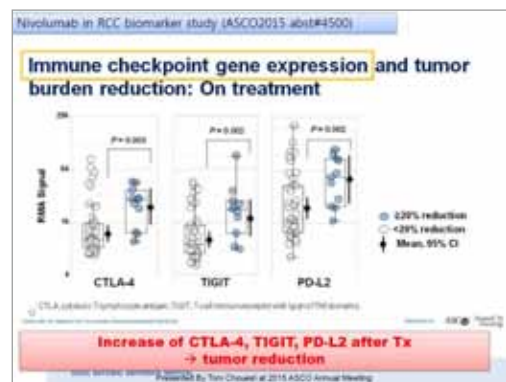
PD-1/PD-L1 Inhibitors Currently in Clinical Development

| Target | Drug Name | Other Names | Source | Structure | Clinical Testing Phase |
|--------|---------------|-------------------------------------|---------------------------|---------------------------|---|
| PD-1 | MSD0059 | MSD-0059 | Medimmune, AstraZeneca | Information not available | Phase I |
| | Mesilumab | CytRx, BMS-936559, KOD-1105, SH-015 | BMS, Onco Pharmaceuticals | fully human IgG4 | approved, treatment efficacy, unresectable melanoma (open, LBA); BMS-936559 (LBA) |
| | Pembrolizumab | Keytruda, MK-3475 | Merck | humanized IgG4 | approved, treatment efficacy, unresectable melanoma (LBA) |
| | Prolisumab | CT-015 | Cure Tech | humanized IgG1 | Phase II |
| PD-L1 | BMS-936559 | KOD-1105 | BMS | fully human IgG4 * | Phase I |
| | MSD0078 | Durvalumab | Medimmune, AstraZeneca | humanized human IgG1 | Phase III |
| | MPDL3280A | MSD0078, Avelumab | Merck, AstraZeneca | humanized human IgG1 | Phase I/II |
| | MSD0078 | MSD-0078 | Medimmune, AstraZeneca | humanized human IgG1 * | Phase I/II |

* Fully human mAb were produced in genetically engineered mice. PD-L1 mAb were engineered to stabilize ADCC and complement-dependent cytotoxicity (CDC).

Source: various sources (open, LBA)

Tropian G, et al. Cancer Cell 2013;27:450

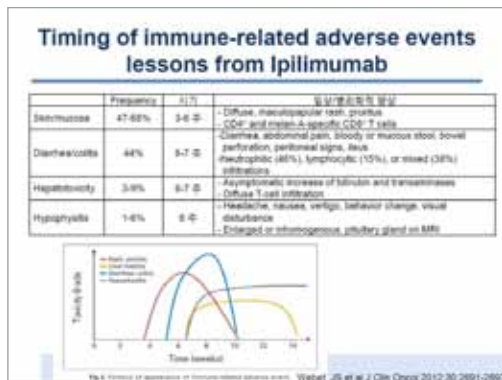


Immune-related response criteria

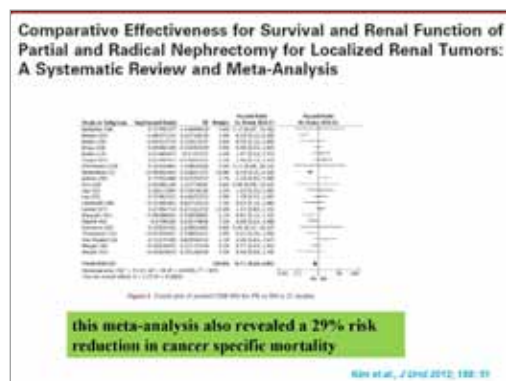
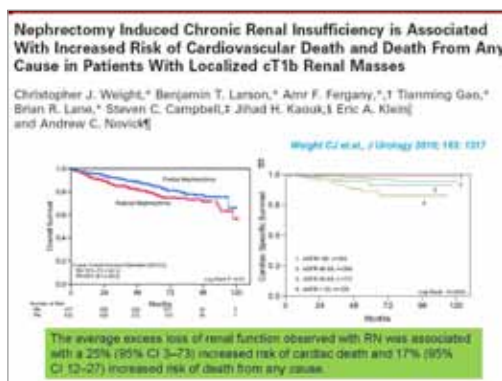
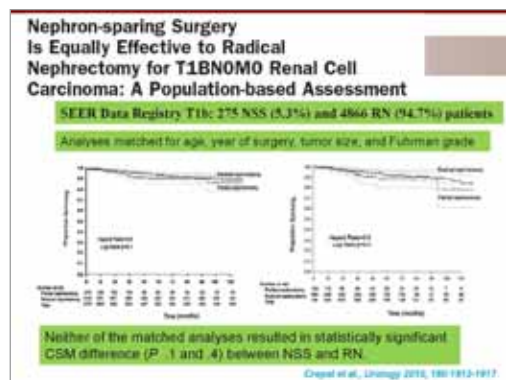
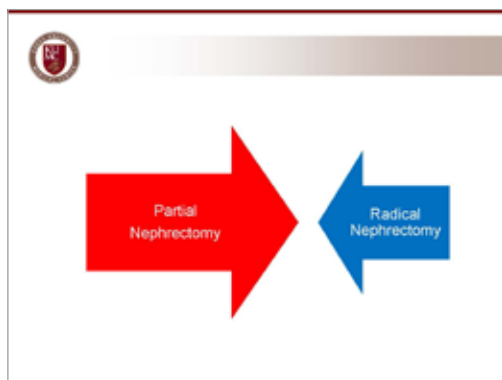
(nivolumab-related...)

| | WHO criteria | irRC |
|---------------------------|--|---|
| Dimension | Bi-dimensional | Bi-dimensional |
| Sum | LD x SD | LD x SD |
| Tumor burden | None | SPD _{baseline} + SPD _{baseline} |
| New lesions | PD | Incorporated into tumor burden |
| Measurable (≥ 5 mm) | PD | Do not define progression |
| Nonmeasurable (< 5 mm) | PD | Do not define progression |
| Non-index lesions | Contribute to define BOR | Contribute to define irCR |
| Complete remission | Disappearance of all lesions in two consecutive observations not less than 4 weeks apart | Disappearance of all lesions in two consecutive observations not less than 4 weeks apart |
| Partial remission | $\geq 50\%$ in SPD _{baseline} | $\geq 50\%$ in SPD _{baseline} + SPD _{baseline} |
| Progressive disease | $\geq 25\%$ in SPD _{baseline} at any single time point | $\geq 25\%$ in SPD _{baseline} + SPD _{baseline} in two consecutive observations at least 4 weeks apart |

Source: Nivolumab Biomarker Study (ASCO2015 abstr4500)



강성구



Partial Nephrectomy

- Retrospective studies
- Multi-institutional study
- Propensity matched analysis
- Instrumental variable analysis
- meta-analysis
- Complication

Radical Nephrectomy

- Selection bias or unmeasurable confounders
- EORCT
- Donor nephrectomy
- Increased oncologic potential
- Leaving less to be saved
- Increased complication

Summary

Recommendations

Nephron-sparing surgery is recommended in patients with T1a tumors. A

Nephron-sparing surgery should be favored over radical nephrectomy in patients with T1b tumors when technically feasible. B

- Selection (size, location, surgeon experience)
- Unable to determine the true impact of partial vs radical nephrectomy on the long-term survival in a younger population
- A normal preoperative renal function : RN instead of PN will not cause substantial harm to old patients

김선일

부신의 임상해부학적 특징

- 신장과 부신은 해부학적으로 분리되어 있는 별도의 장기로써; 방광과 전립선 또는 전립선과 정낭의 관계처럼 서로 연속적이지는 않다.
- 신종양이 부신을 침윤하는 경우는 비교적 드물게 발견된다.
- 단위 그램 당 가장 많은 혈행공급을 받는 장기 중 하나.
- 좌측 부신정맥을 제외하고 정맥과 림프관을 서로 공유하지 않는다.
- 횡경막 바로 아래에 위치해 있어 접근이 쉽지 않고 혈행공급이 풍부해서 부신절제술은 수술시간을 연장시키고 출혈 등의 합병증 위험을 증가시킬 수 있다.

NCCN guidelines on Kidney Cancer, version 2.2014

- Ipsilateral adrenal gland resection should be considered for patients with **large upper pole tumors** or **abnormal-appearing adrenal glands on CT**.
- Adrenalectomy is not indicated when imaging shows a normal adrenal gland or if the tumor is not high-risk, based on size and location

EAU guideline on RCC, 2014

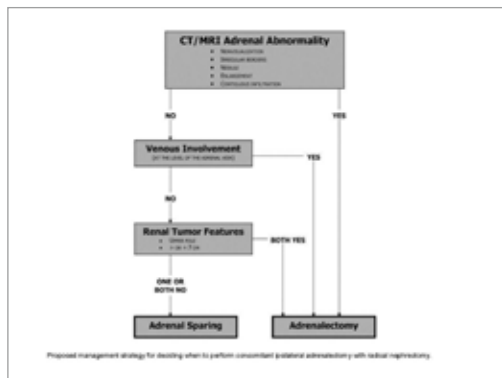
| Conclusion | LOE |
|--|-----|
| Partial nephrectomy achieves similar oncological outcomes to radical nephrectomy for clinically localized, small, low-risk RCC. | 1b |
| Radical adrenalectomy during radical or partial nephrectomy does not provide a survival advantage in patients with localized disease and no evidence of lymph node metastases. No survival advantage of a lymph node dissection in comparison with a radical nephrectomy was demonstrated. | 1b |
| In patients with localized disease and clinically enlarged lymph nodes the survival benefit of lymph node dissection is unclear. In these cases lymph node dissection can be performed for staging purposes. | 2 |
| In patients with RCC and suffering from massive hematuria or flank pain, embolisation can be a beneficial palliative approach. | 2 |
| Recommendations | GR |
| Surgery is recommended in patients with a localized RCC. | A |
| Nephron-sparing surgery is recommended in patients with T1a tumors. | A |
| Nephron-sparing surgery should be favoured over radical nephrectomy in patients with T1b tumors, whenever technically feasible. | B |
| Radical adrenalectomy is not recommended when there is no clinical suspicion of invasion of the adrenal gland. | B |
| Lymph node dissection in the renal specimen is not recommended when there is no clinical evidence of lymph node disease. | A |
| In patients with clinically enlarged lymph nodes, lymph node dissection can be performed for staging purposes or local control. | C |

The Necessity of Adrenalectomy at the Time of Radical Nephrectomy: A Systematic Review

Rebecca L. O'Malley,* Guilherme Godoy,t Jamie A. Kanofsky* and Samir S. Taneja,t,§

From the Urologic Oncology Program, Department of Urology, New York University School of Medicine, New York, New York

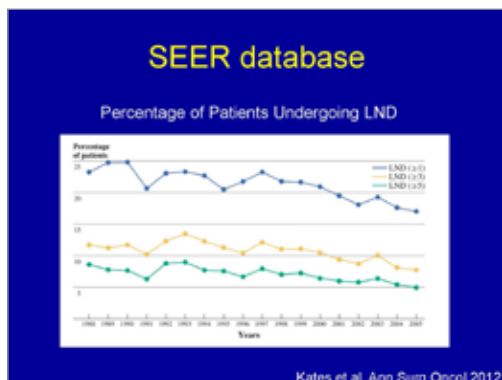
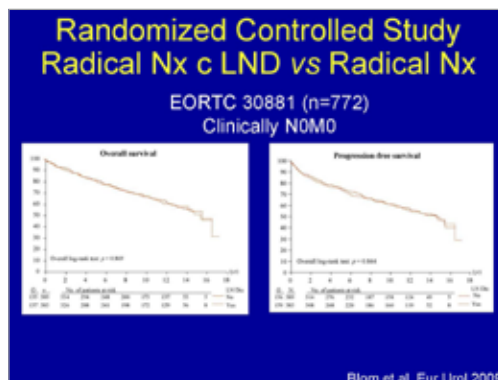
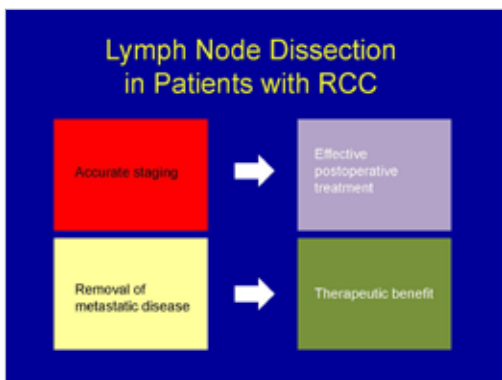
Vol. 181, 2009-2017, May 2009



결론

- 근치적 신절제술시 동측 부신절제술은 일상적으로 시행하지 않는다.
- 부신 침윤에 대한 CT 등 영상의학검사의 민감도와 음성예측률이 높기 때문에 CT 판독에 이상소견이 있을 경우에 한정해서 부신절제술을 시행한다.
- 단, 부신 근처의 큰 종양이나 좌측 신정맥내 종양혈전이 있는 좌측신암, 대정맥내 종양혈전이 있는 우측신암은 부신절제술을 시행하는 것이 좋다.
- 부분신절제술의 경우에도 근치적 신절제술과 같은 원칙으로 부신절제 여부를 결정한다.

이동현



Systematic Review

| Study | Population | Intervention | Control | Outcome | Notes |
|-------------------|------------|--------------|------------|---|-----------------------------|
| Blom et al. 2009 | 772 | LND | Radical Nx | Overall survival (p=0.001), Progression-free survival (p=0.004) | Randomized controlled trial |
| Kates et al. 2012 | 1,000 | LND | Radical Nx | Overall survival (p=0.001), Progression-free survival (p=0.004) | Retrospective analysis |
| ... | ... | ... | ... | ... | ... |

Bekema et al. Eur Urol 2013

Systematic Review

- Sample size were small
- None of the studies adjusted appropriately for important prognostic factors
- any finding should be interpreted with cautions

Bekema et al. Eur Urol 2013

Conclusion

- There is no effective adjuvant therapy at present.
- More high quality evidence is needed to draw any conclusion on therapeutic benefit of LND.

강성구

GUGY CT (2015.6.10)



Impression

- Renal cell carcinoma, left
- Right adrenal gland mass
 - r/o metastasis
 - pheochromocytoma
 - primary adrenal carcinoma
 : Hormonal study – nonfunctional mass
- Metastasis w/up
 - : Chest CT, Bone scan, Pet CT
 - NO determinate metastatic lesion

Lt Radical nephrectomy & Lt. adrenalectomy

- Pathology
 - RCC, unclassified (sarcomatoid feature)
 - pT3a

Kidney and adrenal, left, radical nephrectomy and adrenalectomy

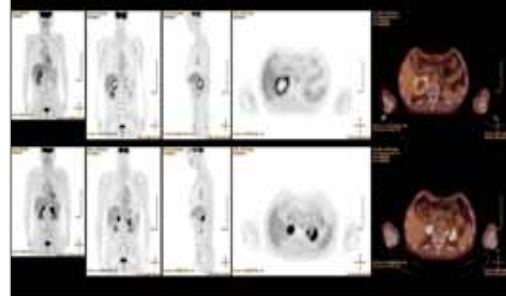
1. Primary tumor description: Left renal cell carcinoma, unclassified
2. Size: 5.5x4.0cm
3. Tumor grade: H (nuclear grade)
4. Metastatic disease: not identified. 28-30 micrometastases (sarcomatoid)
5. Extent of tumor: Tumor extends into the renal vein at its segmental branches, or tumor branches posterior and/or renal vein but not beyond (Gleason 4+3=7) Stage T3a
6. Resection status: Tumor totally resected and no gross evidence of tumor
7. Metastatic disease: Not identified
8. Adrenal gland: The histologic changes are consistent with metastatic renal cell carcinoma. Stage T3b
9. Lymph node(s): Present, 1/10
10. Capsule invasion: Present
11. Additional features: No significant vascular invasion

Tissue submitted as: metastatic renal mass (LFT), metastatic, F&B records

Final The result of immunohistochemistry:

CD34: Positive
CD117: Positive
Desmin: Negative
HMB45: Negative
SMA: Negative
CD11b: Negative

F/U Torso PET-CT (2015.9.24)



Target therapy

- 1L1C CTx. (Torisel(Temsirolimus) mono)
- 8th wks. (2015.10.13 ~ 2015.12.2)
- HO admission (2015.12.3) – f/u evaluation

MRI Abdomen (2015.12.4)



- ♦ **RCC with sarcomatoid feature (Fuhrman grade 4)**
c multiple lung metastases
c rt. adrenal gland & liver & rt. kidney & IVC
c ascending colon
s/p Lt. radical nephrectomy with adrenalectomy

What is your next plan?

Pulmonary Tb

- General weakness & fever (38.3 °C)
- Sputum collection
 - AFB Fluorescent Stain (+)
 - AFB culture: Mycobacterium tuberculosis complex (+)
- Tb medication start (2015.12.3)
 - Isoniazid
 - Rifampicin
 - Pyrazinamide
 - Ethambutol
 - Pyridoxine

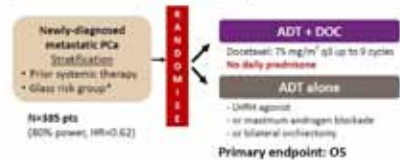
Noep Clarke

Initial Chemotherapy in Hormone Sensitive Prostate Cancer

NW Clarke
Consultant Urological Surgeon
Professor of Urological Oncology
Manchester, UK



GETUG-15: Study Design



Stanton H et al. J Cancer Ther 2015;2015:104-110

```

graph LR
    A["Newly diagnosed metastatic PCa  
Ethy distribution  
- Extent of mets (high vs low)  
- Age (>70 vs <70 yr)"] --> B["Randomized"]
    B --> C["ADT + DOC for 6 cycles (n=337)"]
    B --> D["ADT alone (n=334)"]
    C --> E["Follow for time to progression and OS"]
    D --> F["Chemotherapy at investigator's discretion if progression"]
  
```

The flowchart illustrates the study design. It begins with a box for 'Newly diagnosed metastatic PCa' with details on 'Ethy distribution' (Extent of mets (high vs low) and Age (>70 vs <70 yr)). An arrow labeled 'Randomized' leads to two treatment arms: 'ADT + DOC for 6 cycles (n=337)' and 'ADT alone (n=334)'. The first arm leads to 'Follow for time to progression and OS', while the second arm leads to 'Chemotherapy at investigator's discretion if progression'.

- Summary of use in English literature (1900-1975):**

Randomized phase II study in 101 patients with metastatic hormone-naïve PCa
Grossi et al. *Journal of Clinical Oncology*

Randomized phase II study in 782 patients with metastatic hormone-naïve PCa
 (Suzuki et al. 2014) (NCT01370104)

[illegible]

Downloaded from <http://ajphaphysoc.org/> at University of California, San Diego on November 12, 2014

- Docetaxel improves survival for hormone-naïve prostate cancer in men with Metastatic disease

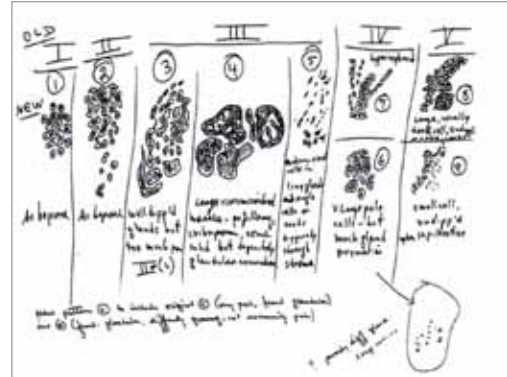
- EAU Guidelines 2016
NCCN Guidelines 2016

권기영

Gleason System



- By Dr. Donald F. Gleason and Veterans Administration Cooperative Urological Research Group (VACURG)
- 1960-1975: based on = 4000 patients
- Specimens studied: TURP, 14-gauge needle biopsies and prostatectomies (mostly simple)



Evolution of Gleason System

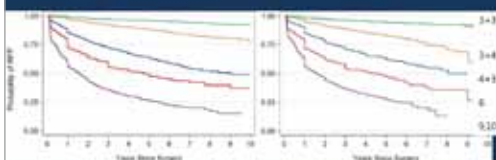
- First proposed in 1966
- Modified in 1977 by Dr. Gleason
- ISUP modification : 2005
- ISUP update and suggestion of new grade group : 2014
- WHO incorporation of new grade group : 2016

Definition of New Grading System

- Grade group 1 (Gleason score 3 + 3 = 6)
- Grade group 2 (Gleason score 3 + 4 = 7)
- Grade group 3 (Gleason score 4 + 3 = 7)
- Grade group 4 (Gleason score 8)
- Grade group 5 (Gleason scores 9-10)
- GS 6 tumors come first in grouping.
- Both GS 7 and GS > 7 tumors are separated in two groups.

Recurrence Free Progression

Following prostatectomy or biopsy



Advantages of new Grading System

- More accurate grade stratification
- (Simplified grading)
- Lowest grade in practice is designated as grade 1.
 - Avoids potential misunderstanding from the patients.

doi:10.1017/S0022292412001114

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doi:10.1017/S0022292412001816

Figure 10.14. A different perspective on the same data. The data are by region, and a different variable (the mean number of years of schooling) is plotted against the mean number of years of schooling. The data are by region, and a different variable (the mean number of years of schooling) is plotted against the mean number of years of schooling. The data are by region, and a different variable (the mean number of years of schooling) is plotted against the mean number of years of schooling.

There is a history of linkage between the literature of popular culture and contemporary music. In the early days of the 20th century, many young people were attracted to the music of the 1920s and 1930s, and the music of the 1940s and 1950s. The music of the 1960s and 1970s was also very popular, and the music of the 1980s and 1990s was also very popular. The music of the 2000s and 2010s was also very popular, and the music of the 2020s is also very popular.

Vol. No 2016 2 • 21



Isaac Y, Kim




THE STATE UNIVERSITY OF NEW JERSEY

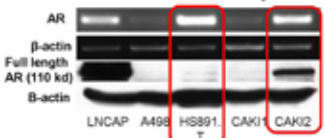
Targeting the Androgen Signaling Axis in Renal Cell Carcinoma

Isaac Yi Kim, MD, PhD
Acting Chief and Associate Professor, Division of Urology,
Rutgers Robert Wood Johnson Medical School;
Chief, Section of Urologic Oncology, Rutgers Cancer
Institute of New Jersey, New Brunswick, NJ

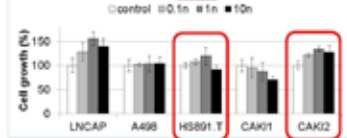




Human RCC Cell Lines Express AR






LNCaP A498 HS891.T CAK1 CAK2



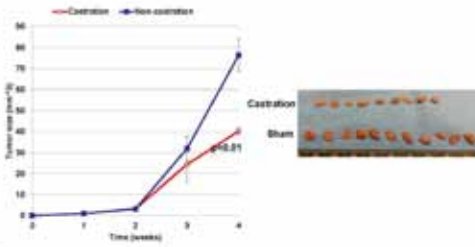
Cell growth (%)

Control 0.1n 1n 10n





Castration slows Caki2 xenograft growth






Tumor growth (mm³)

Time (weeks)

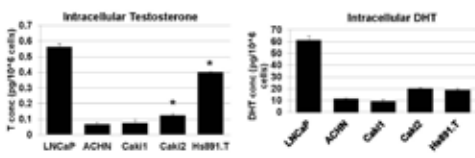
Castration Non-castration

Castration Sham





Intracrine Androgen Synthesis is present in RCC





Intracellular Testosterone


Intracellular DHT

T conc (pg/10⁶ cells)

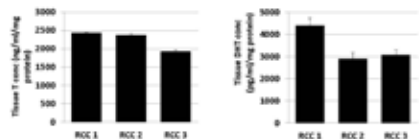
DHT conc (pg/10⁶ cells)

LNCaP ACHN CAK1 CAK2 HS891.T







RCC Intratumoral androgen levels in females is physiologically significant




Testosterone (pg/10⁶ cells)

DHT (pg/10⁶ cells)

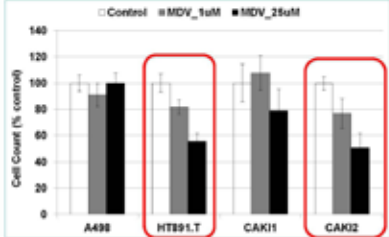
RCC 1 RCC 2 RCC 3



| | CYP11A1 | SRD5A | CYP17A1 | HSD17B3 | AKR1C1 |
|-------|---------|-------|---------|---------|--------|
| LNCaP | + | ++ | ++ | ++ | ++ |
| RCC | - | ++ | + | +++ | ++ |





Enzalutamide Inhibits RCC Cell Lines

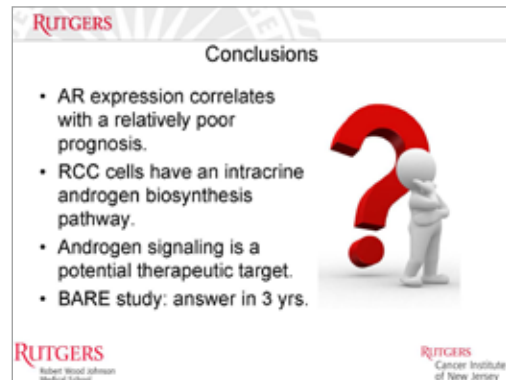
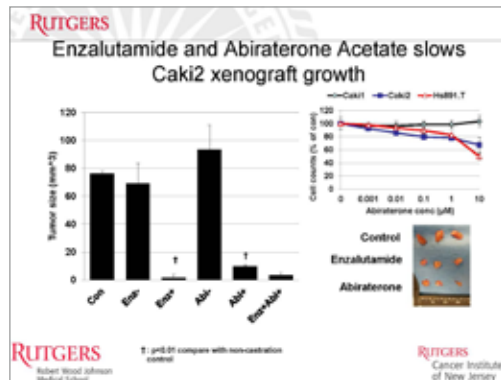


Cell Count (% control)

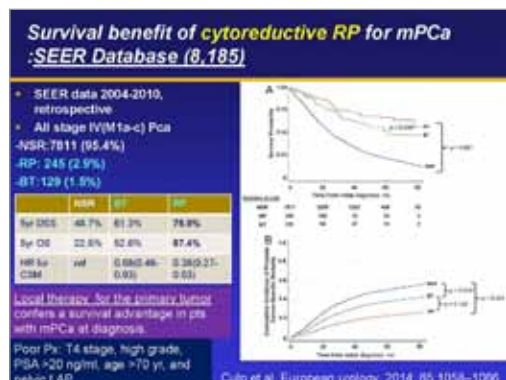
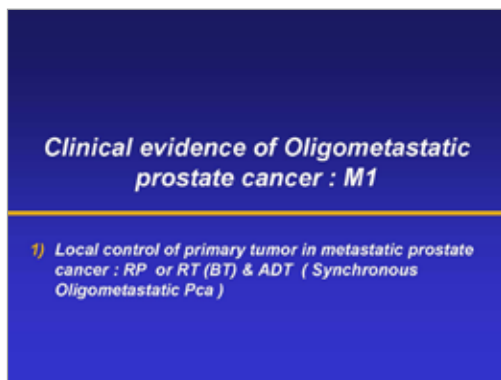
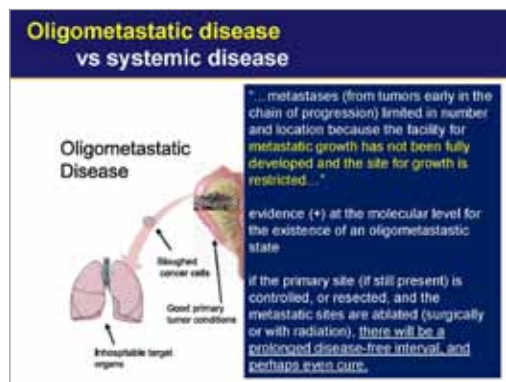
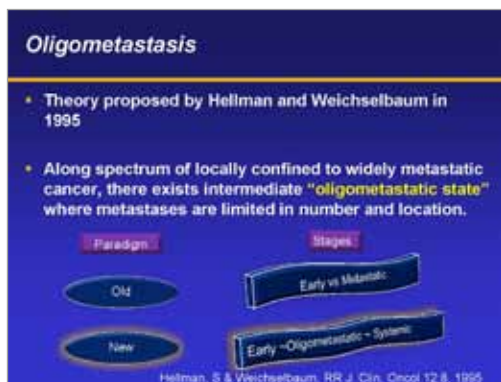
Control MDV_1uM MDV_25uM

A498 HS891.T CAK1 CAK2





정승일



Role of RP in Metastatic Prostate Cancer : Data from the Munich Cancer Registry

- 1989-2010, Retrospective
- 1538 newly diagnosed M+ Pca
- 1464(95%) No surgery
- 74(5%) RP
- 5-yr OS
RP= 55%
No RP= 21% (p<0.01)
- Limitation
 - No data on why RP, performance status, co-morbidity & other treatment details.
 - Comparing highly selected 5% vs 95%

Glatzke et al. Eur Urol 2014;66:602-3

What is the best way to treat oligometastatic prostate cancer?

Prostate

- radical prostatectomy
- brachytherapy

+

Androgen deprivation therapy (ADT)

radical prostatectomy → brachytherapy

Butwhich mPca patients may have an improved survival benefit ?

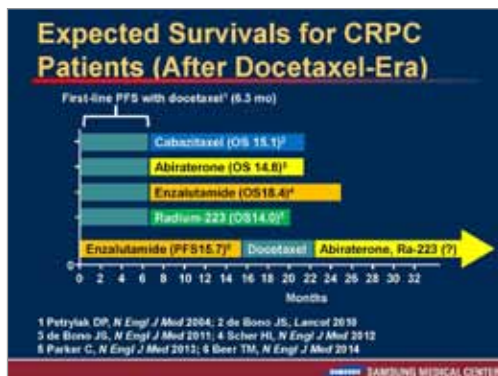
Conclusion

- Synchronous oligometastasis**
 - Improved survival and decreased symptomatic local progression
 - Local treatment in LN(+) Pca patients.
 - Local treatment in metastatic Pca patients. (RP >> XRT)
- Oligorecurrence**
 - SBRT or sLND (clinical trial)
 - promising approach but the low level of evidence

Conclusion

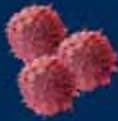
- Too early to start surgery in M+ disease routinely
- Due to the lack of high-quality evidence, its role needs to be confirmed in **future prospective trials.** (STAMPEDE, HORRAD etc)
- The selection of **ideal candidates** and **optimal treatment alternative** (radiotherapy, radical prostatectomy or other) warrants further investigation.

박세훈



When Is Chemotherapy Appropriate?

• Tumor factors



Metastases
PSA
Differentiation
Doubling time

• Patient factors



Age¹
PS
Symptoms²
Comorbidities³

"Can this patient avoid chemotherapy?"

"Can this patient tolerate chemotherapy?"

1 Hull WH, *Prostate Cancer* 2006
2 Halabi S, *J Clin Oncol* 2006
3 Houlleman S, *Crit Rev Oncol Hematol* 2006

SAMSUNG MEDICAL CENTER

How Do Physicians Make Their Choices in Treatment of Cancer?



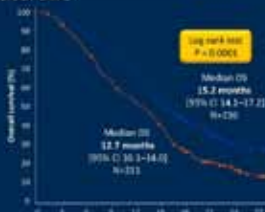
1 Bolton JC, *J Manipulative Physiol Ther* 2001

SAMSUNG MEDICAL CENTER

Differentiation?

• High Gleason score predictive of "non"-response to abiraterone¹

• Chemotherapy effective in poorly-diff tumors²



1 Azria D, *ESMO* 2012
2 Outard S, *ESMO* 2012

SAMSUNG MEDICAL CENTER

We Have Multiple Treatment Options for CRPC

- Nobody knows what is the "best" choice.
 - Decisions should be individualized based on disease status, comorbidities and organ functions.
 - Or decisions based on (known yet) biomarkers or "out-of-pocket" expenses
- Consider utilization of all the available agents, in sequence or in combination.

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박인근

거세저항성 전이성 전립선암 진료지침

[KQ2.1.] 거세저항성 상태의 진단 기준 및 확인 방법은 무엇인가?

- 거세 저항성 전립선암으로 진단하기 위해서는 호르몬 박탈 치료 유지 중, 테스토스테론 혈중 수치가 거세 수준이어야 하고, 혈중 PSA 수치가 최소한 1주 간격으로 3회 측정된 검사에서 2회 이상 상승하거나, 신체검진, 방사선학적 검사, 또는 골격 핵의학 검사에서 악화 소견이 확인되어야 한다 (LE: 5; GR: SR).

[KQ2.2.] 거세저항성 전립선암 환자에서 남성호르몬 박탈치료는 지속되어야 하는가?

- 거세 저항성 전립선암으로 진행된 환자라도 추가적인 치료와 상관없이 내-외과적 호르몬 박탈 치료는 지속되어야 한다 (LE: 1a-1c; GR: SR).

[KQ2.3.] 전립선 신경내분비암은 어떤 경우 의심하고 진단하여야 하는가?

- 거세저항성 전립선암 치료 중 혈중 PSA수치의 변화는 크지 않으나 임상적, 영상의학적, 또는 핵의학적 검사에서는 빠르게 진행되는 경우에 신경내분비암이 아닌지 확인하여야 한다 (LE: 4; GR: SR).

[KQ2.4.] 전이성 전립선암에서 어떤 치료를 결정하기 전 고려되어야 할 사항은 무엇이며 치료의 목표 설정은 어떻게 하는가?

- 치료를 결정하기 전에 환자에게 치료의 효과와 부작용 및 비용에 대한 정보를 제공해야 하며, 환자가 치료의 목적을 이해할 수 있도록 해야 한다 (LE: 5; GR: SR).
- 환자의 동반된 질환을 평가해야 하며, 만성 질환이 2가지 이상인 경우 치료의 복잡성과 불확실성을 고려하여 개인의 상태에 맞는 치료 계획을 세우고, 공동의사결정(shared decision making)을 하도록 한다 (LR: 5; GR: SR).
- 완화적 돌봄(palliative care)은 모든 환자에게 제공되어야 하며, 증상이 있거나 삶의 질이 저하된 환자에게 치료의 종류에 상관없이 제공해야 한다 (LE: 5; GR: SR).

[KQ2.5.] 도세탁셀 항암치료를 받지 않은 거세저항성 전립선암에서 아비라테론 또는 엔잘루타마이드는 효과적인 치료법인가?

- 도세탁셀 치료 경험이 없는 무증상 또는 경미한 증상을 가진 거세저항성 전립선암에서 아비라테론과 프레드니손 병용요법 또는 엔잘루타마이드 요법은 일차치료로 고려되어야 한다 (LE: 1a; GR: WR).

[KQ2.6.] 거세저항성 전립선암의 치료에 있어 도세탁셀 항암치료의 임상적 의의는 무엇인가?

- 도세탁셀과 (3주 간격 또는 2주 간격) 프레드니손 병용요법은 전이성 거세저항성 전립선 암환자의 1차 항암치료의 표준요법이다 (LE: 1a; GR: SR).
- 에스트라우스틴과 병합치료도 1차 항암치료로 고려해 볼 수 있다 (LE: 1b; GR: WR).

[KQ2.7.] 도세탁셀 항암치료 후 진행하는 거세저항성 전립선암에서 아비라테론 또는 엔잘루타마이드는 효과적인 치료법인가?

- 이전 아비라테론이나 엔잘루타마이드치료 병력이 없는 거세저항성 전립선암 환자가 도세탁셀 치료 이후 진행된 경우 아비라테론과 프레드니손 병용 요법 또는 엔잘루타마이드 요법을 고려하여야 한다 (LE: 1b; GR: SR).

[KQ2.8.] 도세탁셀 항암치료 후 진행하는 거세저항성 전립선암에서 카바지탁셀은 효과적인 치료법인가?

- 카바지탁셀은 프레드니솔론과 병용하여 이전에 도세탁셀을 포함한 화학요법 치료를 받은 적이 있는 호르몬 저항성 전이성 전립선암의 치료로 고려되어야 한다. (LE: 1b; GR: WR)

[KQ2.9.] 거세저항성 전립선암에서 미토잔트론의 효과는?

- 미토잔트론과 당질코르티코이드 병합치료는 거세 저항성 전이성 전립선암에서 생존 기간을 연장시켜주는 듯하지만 도세탁셀이나 카바지탁셀을 사용할 수 없는 경우, 증상 호전을 목적으로 사용할 수 있다 (LE: 1b; GR: WR).

[KQ2.10.] 거세저항성 전립선암에서 케토코나졸, 에스트라무스틴 또는 비카루타마이드의 효과는?

- 케토코나졸과 코르티코스테로이드 병용요법은 거세저항성 전이성 전립선암의 2차 호르몬 치료로 사용 시 객관적 반응율과 PSA반응율의 효과를 보일 수 있으나 생존기간의 개선은 보여주지 못하였다. (LE: 2b; GR: WR).
- 거세저항성 전립선암의 치료에 있어 에스트라무스틴 및 비카루타마이드 등과 같은 불특정 2차 호르몬 치료제들은 단기간 PSA감소 등과 같은 효과를 가져올 수 있지만, 생존기간을 증가시킨다는 근거는 없다. (LE: 2c; GR: WR)

[KQ2.11.] 줄레드로네이트 또는 데노수맵을 거세저항성 전립선암 환자에게 사용해야 하는가?

- 골 관련 합병증의 위험성이 높은 다발성 골전이를 동반한 거세 불응성 전립선 암환자에게 데노수맵 또는 줄레드로네이트 등 뼈를 표적으로 하는 약제들을 사용하여야 한다. 데노수맵 혹은 줄레드로네이트 등의 약제를 사용하기 전 치과 검사를 시행하여야 하며, 치료 시 경구 칼슘 및 비타민 D제제를 같이 사용하고 주기적으로 혈청 칼슘 농도를 측정하는 것이 권고된다 (LE: 1a; GR: SR).

[KQ2.12.] 골격전이를 동반한 거세저항성 전립선암 환자에서 Radium-223치료는 효과적인가?

- Radium-223은 내장 장기 전이를 동반하지 않고 증상이 있는 골전이를 동반한 거세 저항성 전립선암 환자에게 사용시 통증을 완화하고 골관련 합병증을 줄이며 생존 기간을 연장시킨다 (LE: 1a; GR: WR).

[KQ2.13.] 거세저항성 전립선암에서 치료에 대한 반응 판정은 어떻게 하는가?

- 거세저항성 전립선암 환자에서 반응판정은 전산화 단층촬영이나 자기공명영상과 같은 영상의학적 방법 (골전이를 제외한 연부조직 전이 및 내장전이), 골주사 검사와 같은 핵의학적 방법 (골전이), 혈중 전립선 특이항원농도, 그리고 증상을 고려하여 종합적으로 판단한다 (LE: 5; GR: SR).

Q 학회소식



차기회장:

한림대 조진선교수가 이사회에서 차기회장으로 추대되었다.

임기는 2016년 9월부터 2년간이다.



학술상

- 임상: 남종길, 정문기: Predicting progression and survival in Korean patients with high grade T1 bladder cancer using EORTC risk tables
- 기초: 임송원, 지병훈: The internalization of BCG in bladder cancer cells may be inhibited by human beta-defensin 3



대한비뇨기종양학회 워크샵

| 일시 | 2016년 5월 28일(토) 14:30-18:40
| 장소 | 남원 (켄싱턴 리조트)

PROGRAM

| | | |
|-------------|---|--|
| 14:30-15:00 | Registration | |
| 15:00-15:10 | President's Welcome | 대한비뇨기종양학회장 김형진 |
| <hr/> | | |
| 15:10-16:10 | Symposium (I): 신암 신암의 역학 및 진단 국소 신암의 치료 진행된 신암의 치료 증례토의 진행: 강성구 (고려의대) 패널: 김수동 (동아의대), 김정현 (강원의대), 홍성후 (가톨릭의대), 황의창 (전남의대) | 좌장: 김홍섭 (건국의대) / 천 준 (고려의대) 김수동 (동아의대) 홍성후 (가톨릭의대) 황의창 (전남의대) |
| <hr/> | | |
| 16:10-16:30 | Coffee break | |
| <hr/> | | |
| 16:30-17:30 | Symposium (II): 방광암 비근육침습방광암에서 방광내 화학요법 및 면역요법 근육침습방광암에서 항암요법 전립선 요로상피암의 진단과 치료 증례토의 진행: 정병창 (성균관의대) 패널: 구자현 (서울의대), 김태환 (경북의대), 서호경 (국립암센터), 윤석중 (충북의대), 조강수 (연세의대) | 좌장: 이형래 (경희의대) / 김선일 (아주의대) 윤석중 (충북의대) 김태환 (경북의대) 서호경 (국립암센터) |
| <hr/> | | |
| 17:30-18:30 | Symposium (III): 전립선암 한국인 전립선암 진료지침의 필요성 한국인 전립선암 진료지침의 한계점 패널토의 - 향후 개선방향 진행: 정승일 (전남의대) 패널: 박재신 (대구가톨릭의대), 윤상민 (인하의대), 이승환 (연세의대), 송재만 (연세의대), 장성구 (경희의대), 정창욱 (서울의대), 조문기 (원자력의학원), 최한용 (성균관의대), 하홍구 (부산의대), 홍성준 (연세의대) | 좌장: 김형진 (전북의대) / 조진선 (한림의대) 조문기 (원자력의학원) 정창욱 (서울의대) |
| <hr/> | | |
| 18:30-18:40 | Closing | |

