

II Conclusiones

USCAP & AACR

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Patología pulmonar

Ponente: Dr. José Ramirez

Hospital: Hospital Clínic. Universidad de Barcelona.



An Intratumoral B-Cell Immune Response Determines Favorable Prognosis for Early Stage Lung Cancer and Can Be Assessed by Different Immunoscores. Hospital Clínico San Carlos. Madrid



MATERIAL & METHODS

- 84 resected R0 stage I /II NSCLC without adjuvant therapy. Recurrence: 34.5%. TNM, clinicopathological variables, EGFR and Kras mutations, microarray expression and 50-gene signature, chronic inflammation on H-E, semiquantitatively by IHC for CD3, CD4, CD8, granzyme B, CD20, CD57, CD79 and CD19, Univariate and multivariate analysis for DFS were assessed.

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RESULTS

- In our series, clinicopathological variables including TNM were not associated with DFS. K-ras mutations showed a tendency ($p=0.07$) and only immune scores showed significant association with DFS.

DFS: Tiempo libre de Enfermedad

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RESULTS

- The best predictor/ immunoscore was the 50-gene signature (HR=3.44; $p=0.001$) that identified 1/3 of patients with good prognosis including both AC and SCC, stage I and II. Presence of CD20+ cells (>60 cells/mm³) in the center of the tumour was detected in 50% of cases associated with favorable prognosis ($p=0.05$)

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CONCLUSIONS

- We can classify a subgroup of patients with very low risk of recurrence associated to a B-cell response, that may be candidates to avoid the toxicity of adjuvant therapy.

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La respuesta inflamatoria con predominio de células linfoides B, es un factor de buen pronóstico, que podría limitar la quimioterapia adyuvante

Application of the New Proposed Adenocarcinoma Classification – A Reproducibility Study. Hershey Med Center, PA; SUNY Upstate Medical University, Syracuse, NY



INTRODUCTION

- The proposed IASLD/ATS/ERS adenocarcinoma classification document has stressed the need for further validation. The aim of this study was to assess whether the determination of tumor pattern is reproducible among pulmonary pathologists in routine daily practice.

Application of the New Proposed Adenocarcinoma Classification – A Reproducibility Study. Hershey Med Center, PA; SUNY Upstate Medical University, Syracuse, NY



INTRODUCTION

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MATERIAL & METHODS

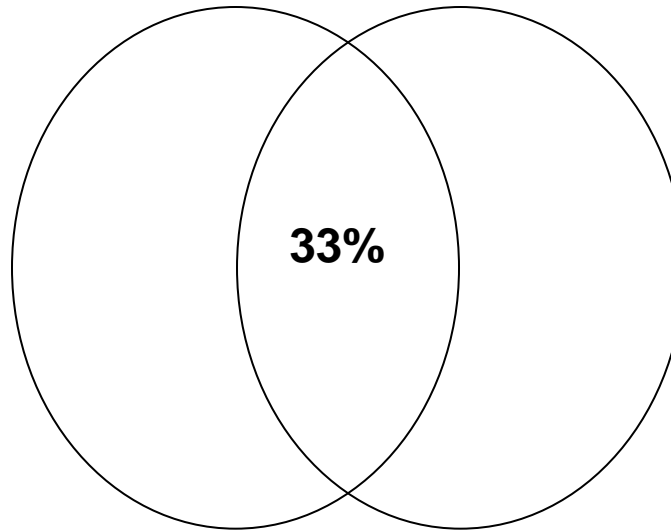
- All slides (median 4, range 1-9) from 75 consecutive resected T1 adenocarcinomas were assigned a primary and secondary pattern by 3 pathologists with pulmonary subspecialty training and at least 5 years' experience

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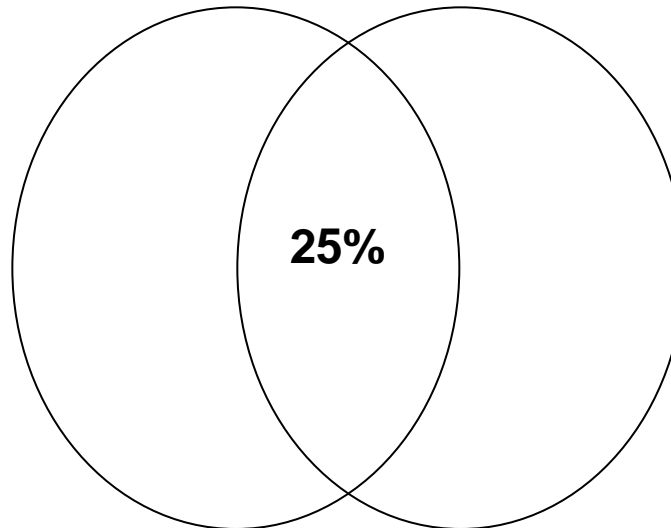


RESULTS

Correlación subtipo



Discrepancia subtipo



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CONCLUSIONS

- Inter-observer reproducibility in the determination of predominant and secondary patterns in resected pulmonary adenocarcinomas is poor, even among pulmonary pathologists, when applied to evaluating actual slides of resected tumors

CONCLUSIONS

- The inability to reproducibly distinguish lepidic vs. acinar patterns, in particular, adversely impacts the reliable diagnosis of adenocarcinoma in situ

Application of the New Proposed Adenocarcinoma Classification – A Reproducibility Study. Hershey Med Center, PA; SUNY Upstate Medical University, Syracuse, NY

La aplicación de los patrones definidos por la nueva clasificación de Adenocarcinoma pulmonar (JTO:2011) tiene baja reproducibilidad, lo cual limita la detección de variantes de buen pronóstico.

Pulmonary Adenocarcinomas with Signet Ring Cell (SRC) Features: A Clinicopathologic and Molecular Study. Mayo Clinic, Rochester, MN



MATERIAL & METHODS

- Surgically treated lung ADCAs (n=764).
- TTF1+ / CDX2-
- Cytoplasmic Mucin +
- 7-9 % SRC+
- SRC+ = >10% positive cells
 - IHQ ALK+ = FISH
 - DNA= MassArray based Lung Cancer Mutations Screening Panel (179 mutations in 10 gen)

Pulmonary Adenocarcinomas with Signet Ring Cell (SRC) Features: A Clinicopathologic and Molecular Study. Mayo Clinic, Rochester, MN



CONCLUSIONS

- SRC+ ADCA of lung are associated with male gender and higher stage.
- Shorter survival was observed in SRC+ cases in the never-smoker cohort

CONCLUSIONS

- SRC+ cases in all cohorts were more likely to be *ALK+*.

Pulmonary Adenocarcinomas with Signet Ring Cell (SRC) Features: A Clinicopathologic and Molecular Study. Mayo Clinic, Rochester, MN

La presencia de >10% de células en anillo de sello en los Adenocarcinomas se asocia a estadios altos, implica peor pronóstico y se relaciona con Translocación de ALK

Complex Glands (Cribriform and Fused Glands) Are Patterns of High Grade Adenocarcinoma in the Lung. Memorial Sloan-Kettering Cancer Center, NY



MATERIAL & METHODS

- 283 resected pulmonary adenocarcinomas were reviewed and classified according to above systems.
- The amounts of the standard 5 patterns as well as non-standard patterns, including cribriform, ragged/fused glands were recorded for each case

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MATERIAL & METHODS

- **Association of non-standard patterns with:**
 1. predominant type of adenocarcinoma
 2. tumor grade
 3. disease free survival (DFS)

Complex Glands (Cribriform and Fused Glands) Are Patterns of High Grade Adenocarcinoma in the Lung. Memorial Sloan-Kettering Cancer Center, NY



- PATTERNS:
 - Lepidic
 - Acinar
 - Papillary
 - Solid
 - micropapillary.
- New pattern
 - Cribriform / Fused

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MATERIAL & METHODS

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CONCLUSIONS

- New pattern seen in 28% cases
- DFS: Similar to high grade tumors
- Associated to solid & high grade tumors
- It is important to recognize these patterns

Complex Glands (Cribriform and Fused Glands) Are Patterns of High Grade Adenocarcinoma in the Lung. Memorial Sloan-Kettering Cancer Center, NY

El patrón cribiforme aparece en el 28% de los Adenocarcinomas y su reconocimiento es importante por asociarse al comportamiento de alto grado

Comparative Study of FISH and Immunohistochemistry Assays for the Detection of ALK-Positive Non-Small-Cell Lung Cancers: Report of a Series of 878 Cases. CHU Pontchaillou, Rennes, France



- The cohort consisted of 608 male and 270 female patients with a NSCLC
 - 709 adenocarcinomas
 - 115 squamous cell carcinomas
 - 24 large cell carcinomas
 - 30 others

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MATERIAL & METHODS

- FISH (Abbott-Vysis ALK Break Apart FISH Probe)
- IHC (Anti-ALK antibody (ab17127)5A4 clone, Abcam and Roche-Ventana BenchMark XT system).

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RESULTS

- 17 were FISH+/IHC+
- 8 FISH+/IHC-
- 7 FISH-/IHC+
- 626 FISH-/IHC-
- overall concordance between the 2 techniques was 98%

- Total 4,6% FISH or IHC +

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CONCLUSIONS

- Our data highlight some discrepancies between ALK testing by FISH and IHC inciting to routinely perform these 2 assays

Comparative Study of FISH and Immunohistochemistry Assays for the Detection of ALK-Positive Non-Small-Cell Lung Cancers: Report of a Series of 878 Cases. CHU Pontchaillou, Rennes, France

La detección de translocación de ALK por FISH o su equivalente por Inmumnohistoquímica muestran concordancia imperfecta, por lo que se propone el uso de ambas técnicas.

Diagnostic Value of Immunohistochemistry for the Detection of the BRAFV600E Mutation in Primary Lung Adenocarcinoma Caucasian

Patients. Pasteur Hospital, Nice, France; Central Hospital, Nancy, France; Haut-Lévêque Hospital, Pessac, France; Institute for Pathology, Heidelberg, Germany; Ambroise Paré Hospital, Boulogne, France

- BRAF mutations were analyzed by DNA sequencing of selected 450/1509 (30%) EGFR, KRAS, PI3KA, Her2 and EML4-ALK wild-type (wt) primary lung adenocarcinomas
- Detection of the BRAFV600E mutation was performed by IHC using the VE1 clone antibody

Diagnostic Value of Immunohistochemistry for the Detection of the BRAFV600E Mutation in Primary Lung Adenocarcinoma Caucasian Patients.

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MATERIAL & METHODS

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- Detection of the BRAFV600E mutation was performed by IHC using the VE1 clone antibody

RESULTS

- 40/450 (9%) of tumors harbored a BRAF mutation
- IHC VE1 assay was positive in 19/21 (90%) BRAFV600E mutated tumors
- IHC VE1 assay was negative in all BRAFnonV600E mutated tumors.

Diagnostic Value of Immunohistochemistry for the Detection of the BRAFV600E Mutation in Primary Lung Adenocarcinoma Caucasian

Patients. Pasteur Hospital, Nice, France; Central Hospital, Nancy, France; Haut-Lévêque Hospital, Pessac, France; Institute for Pathology, Heidelberg, Germany; Ambroise Paré Hospital, Boulogne, France

La detección por Inmumnohistoquímica de la mutación de BrafV600E con el Ac VE1 detecta el 90%, lo que se considera útil en el momento actual

¿Qué me llevo a casa de USCAP'13?



- Patrones morfológicos con significado pronóstico
- Peculiaridades morfológicas relacionables con resultados mutacionales
- Aires críticos de la nueva clasificación de Adenocarcinoma, a la espera de la nueva OMS
- Importancia de la respuesta inflamatoria
- Búsqueda de anticuerpos (IHQ) que emulen resultados mutacionales

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jramirez@clinic.ub.es

