24. Tuberkulose-Symposium Münchenwiler

24e symposium tuberculose de Münchenwiler

Mise au point sur le diagnostic et l'enquête d'entourage

Modération: Alexander Turk, Clinique d'altitude zurichoise Wald
(FR ou DE avec traduction simultanée)

09.15 **Mise au point sur les outils diagnostiques pour l'infection tuberculeuse latente et la tuberculose**
Nicole Ritz, Hôpital universitaire pour enfants des deux Bâles

09.45 **Les données épidémiologiques récentes sur l'enquête d'entourage remettent-elles en question le consensus actuel?**
Jean-Pierre Zellweger, Centre de compétence tuberculose, Ligue pulmonaire suisse

10.15 *Pause*

10.45 **Analyse critique de la contribution de la PCR combinée pour la détection de *M. tuberculosis* et l'identification des mutations du gène rpoB**
Hans L. Rieder, The Union

11.15 **Stratégies pour le diagnostic de la tuberculose en Suisse: un point de vue clinique**
Otto Schoch, Hôpital cantonal de St-Gall

11.45 **Swiss TB Award 2015**
Otto Brändli, Président Fondation Suisse pour la recherche sur la tuberculose

12.00 **Concert piano avec A. et J.-P. Zellweger**

12.30 *Repas*

Aktueller Stand zu Diagnostik und Umgebungsuntersuchung

Moderation: Alexander Turk, Zürcher Höhenklinik Wald
(DE oder FR mit Simultanübersetzung)

09.15 **Stand der Arbeitsinstrumente für die Diagnostik einer latenten tuberkulösen Infektion und der Tuberkulose**
Nicole Ritz, Universitäts-Kinderspital beider Basel

09.45 **Stellen neuere epidemiologische Daten zu Umgebungsuntersuchungen den aktuellen Konsens in Frage?**
Jean-Pierre Zellweger, Kompetenzzentrum Tuberkulose, Lungenliga Schweiz

10.15 *Pause*

10.45 **Kritische Fragen zum Beitrag der kombinierten PCR für den Nachweis von *M. tuberculosis* und der Identifizierung von Mutationen auf dem rpoB-Gen**
Hans L. Rieder, The Union

11.15 **Strategie für die Diagnostik der Tuberkulose in der Schweiz: Die Sicht eines Klinikers**
Otto Schoch, Kantonsspital St. Gallen

11.45 **Swiss TB Award 2015**
Otto Brändli, Präsident Schweizerische Stiftung für Tuberkulose-Forschung

12.00 **Pianoconcert mit A. und J.-P. Zellweger**

12.30 *Mittagessen*

Environmental mycobacteria

Modération: Thierry Rochat, University Hospital of Geneva
(en anglais, avec traduction simultanée FR/DE)

13.45 **Diagnosis of environmental mycobacteria and relevance of susceptibility testing**
Erik C. Böttger, Institute of Medical Microbiology, University of Zurich

14.15 **Epidemiology of EM disease in countries with a low incidence of tuberculosis**
Dirk Wagner, Div. of Infectious Diseases & Center for Chronic Immunodeficiency, Freiburg (D)

14.45 *Coffee break*

15.15 **Criteria for defining environmental mycobacteria disease**
Jesica Mazza-Stalder, CHUV Lausanne

15.45 **Treatment of mycobacteriosis due to environmental mycobacteria and challenges**
Claire Andréjak, CHU Amiens, Amiens (F)

16.15 **Concluding remarks**
Jean-Paul Janssens, University Hospital of Geneva

17.00 *End*

Mise au point sur les outils diagnostiques pour l'infection tuberculeuse latente et la tuberculose

Nicole Ritz, Hôpital universitaire pour enfants des deux Bâles

- Continuum between LTBI and Active TB with trigger factors
- Very high risk of progression to active TB after infection in children < 5 yrs
  - TST > 15 mm and age < 5: 25% probability of evolving towards active TB
- Se of TST > QFT in children; Se QFT: 57 – 85%; T-SPOT.TB: 61 -76%
- Poor PPV of IGRA in children
- High probability of undetermined IGRA in young children (20% if age < 5; ca. 15% between 8 – 10)
- Concept of immune maturation with lower production of Gamma-IFN at both ends of life
- QFT plus to be further evaluated

Les données épidémiologiques récentes sur l'enquête d'entourage remettent-elles en question le consensus actuel?

Jean-Pierre Zellweger, Centre de compétence tuberculose, Ligue pulmonaire suisse

- Risk of infection after exposure to index case : 19 – 27%
- 0.5% rate of active infection found in multicentric TB-NET study by JPZ
- *In CH, very low rate of active infection in contact tracing (0!)*
- Natural rate of infection unknown in many populations: high infection rate in subjects from high endemic areas probably reflects combination of local infection and recent infection
- Rate of active infection in IGRA+ subjects is probaly less than the classically reported 5-10% rate
- Contact tracing should remain focused on close contacts

Analyse critique de la contribution de la PCR combinée pour la détection de *M. tuberculosis* et l'identification des mutations du gène rpoB

Hans L. Rieder, The Union

- Xpert: highly sensitive test for identifying MTB. Se: 90-95% vs C+ cases
- Detection of mutation of rpoB: Se: 95% (CI: 90-07%); Sp: 98% (97-99%)
- PPV is a function of prevalence: In a low prevalence area such as CH, PPV may be as low as 40%: high risk of false positive results.
- ***«Results for resistance to RIF must not be taken for face value»***
- Problem of the Gold Standard: Xpert may be more sensitive than phenotypic tests
- Practically: if result + for R to RIF: repeat Xpert or perform other genetic test to confirm
- Xpert in follow-up: only contribution is detection of MDR appearing under treatment. Not appopriate for monitoring response to treatment

Stratégies pour le diagnostic de la tuberculose en Suisse: un point de vue clinique

Otto Schoch, Hôpital cantonal de St-Gall

- 25% of patients places in respiratory isolation at St Gall hospital are proven to have TB
- Xpert better (more sensitive) than smears for AFB (2 or even 3)
- Xpert neg: OK for not isolating patient suspect of TB
- Xpert +, R(RIF) -: OK for starting HRZE
- Deciding interrupting isolation based on Xpert decreases hospital costs
- If Xpert neg, bronchoscopy allows 1/ to confirm diagnosis faster, 2/ to identify alternative diagnoses such as carcinoma

Diagnosis of environmental mycobacteria and relevance of susceptibility testing

Erik C. Böttger, Institute of Medical Microbiology, University of Zurich

- NTM: More than 100 species: Few strict pathogenic; many opportunistic pathogens; some rare pathogens (most FGM)
- Among 8500 samples in Zh reference lab: 3% MTB; 4% NTM
- Development of 16S rRNA assays since the 1990's
- Drug susceptibility for NTM is 1/ phylogenetic end 2/ Species specific
- $\Rightarrow$ Proper identification is predictive of response to treatment
- Importance of ECOF: epidemiologic cut-off value , for DST
- Singel specimen PCR equivalent to single culture

Epidemiology of EM disease in countries with a low incidence of tuberculosis

Dirk Wagner, Div. of Infectious Diseases & Center for Chronic Immunodeficiency, Freiburg (D)

- NTM like low pH, humidity, acid soils, are hydrophobic, generate biofilms, are impermeable to AB
- NTM can become pathogenic through ingestion, and inhalation
- 41% of NTM-PD show same species in household plumbing
- Wide geographic variations in NTM prevalence
- Important temporal variations over time
- Inverse relation between MTB and NTM: decrease in MTB correlated with increase in NTM. Role of BCG.
- *Importance of underlying pathology of host*
- *Under-treatment frequent*

Criteria for defining environmental mycobacteria disease

Jesica Mazza-Stalder, CHUV Lausanne

- NTM: ubiquitous; opportunistic; associated with host disorder (structural, immunity, CF, CFTR mutations…)
- Person to person transmission unlikely
- Common: MAC, kansasii, xenopi, abcessus; among 140 strains
- ATS/ISDA: Δ: Clinical context + $\geq$ 2 + culture samples or 1 BAL or biopsy; exclusion of other Δ (TB, fungi, Sarcoidosis, vasculitis)
- Spectrum of MAC pathology: direct, hypersensitivity, HIV, familial, *TNFI*…
- Forget about Lady Windermere!

Treatment of mycobacteriosis due to environmental mycobacteria and challenges

Claire Andréjak, CHU Amiens, Amiens (F)

- NTM not synonymous of systematic treatment
- Treat according to severity of disease and context
- At least 3 drugs; 12 months after sputum conversion
- Lack of biomarkers for when to stop
- MAC: R/E; R/MOX ; Macrolides: cornerstone of tt ; CLA>AZI ? Aminosides for severe cavitary forms.
- M Kansasii: RIF: key drug; + EMB + INH? (KLA)
- M Xenopi: KLA improves outcome ?; KLA + RIF + EMB or MOX
- M Abscessus: outcome according to subspecies ; aim to improve symptoms

See you next year for the 25th edition !
Thank you for your participation!