CHU Saint-Pierre
UMC Sint-Pieter

NÉONATOLOGIE
NEONATOLOGIE

ONE LUMP MAY LEAD TO ANOTHER

DR. ELISA KOTTOS

AUTUMN MEETING 2025 BVN-GBN

Respect Innovatie Engagement Solidarité Qualité

Issiagha : Family History

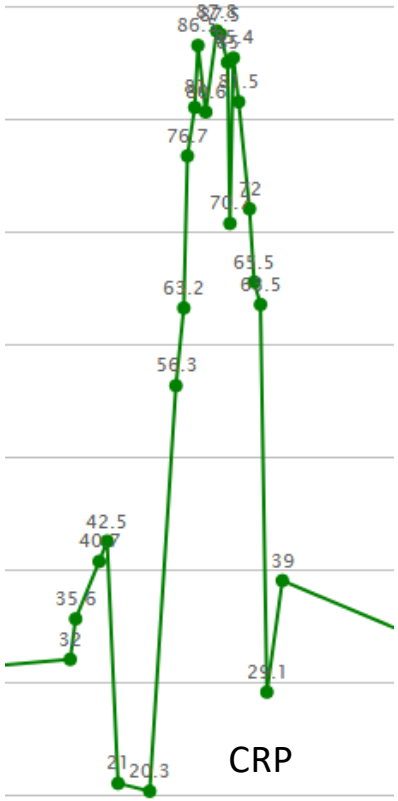
- Mom:
  - 30 years old
  - From Guinea
  - In Belgium since 2020
  - G1P0→1
  - Medical background: Hb AS, obesity, female genital mutilation type 1 or 2
  - No abnormal serology
  - AS
- Dad:
  - 44 years old
  - From Guinea
  - Already 1 healthy child in Guinea
  - AA
- Long history of Medically Assisted Reproduction (tubal obstruction)

Pregnancy

- IVF
- NIPT: XY, inconclusive for chromosome 13.
- Amniocentesis: refused
- Ultrasounds:
  - T1: normal
  - T2: detailed morphological examination appears unremarkable, subject to very poor image quality

Pregnancy

- Hospitalization at 23 1/7 weeks for oligohydramnios and shortening of the cervix.
  - Lung Maturation with corticostéroïds at 23 4/7 and 23 5/7 weeks
  - Booster dose at 26 weeks
  - Unstable CRP
  - No antibiotics



Birth

- Spontaneous Labor at 26 2/7 weeks after rupture of the amniotic sac
- Placental abruption
- BW 820g (P38) – BL 33,5cm (P40) – BCP 23,7cm (P42)
- Neopuff, FiO2 max 80%
- APGAR 4/6/8
- pH 30': 7,05/ PCO2 76mmHg/BE -11,2mEq/L; Lactate 8,5mmol/L
- pH 5h: 7,31/PCO2 51mmHg/BE-1,7mEq/L; Lactate 2mmol/L
- CRP <0,6mg/L
- Antibiotics: Amoxicillin + Cefotaxim

Evolution Day 0→25

- SduoPAP/NAVA 21-25%
- **Digestive intolerance** – TPN – Donor milk
- Phototherapy
- Brady-Desat R/ Cafein
- **Transfusion** J17
- **Neutropenia** J15: spontaneous resolution (CMV 3x neg)

- Cerebral US: grade I subepandymal hemorrhage
- Abdominal US: normal
- PCR CMV: neg
- Infectious screening : neg
- EEG: normal
- Cardiac US: large PDA, no repercussion
- EEG: normal
- PES: normal

Day 25-52 : Clinical Deterioration

- Intubation D25
- 3 sepsis

1.ETA: Staphyloccoccus Aureus **D25-33**

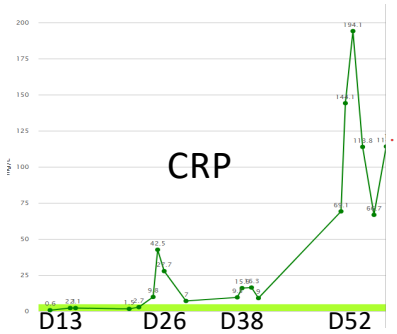
R/ Cefotaxim + Vancomycin → Flucloxacilline

2.ETA: Klebsiella Aerogenese ESBL **D35-47**

R/ Cefotaxim→ Cefepim+Vancomycin → Meronem

3.No Germ detected **D49-55**

R/ Amikacin (2doses) + Meronem



D32 Pulmonary Candidiasis
R/ Fluconazole

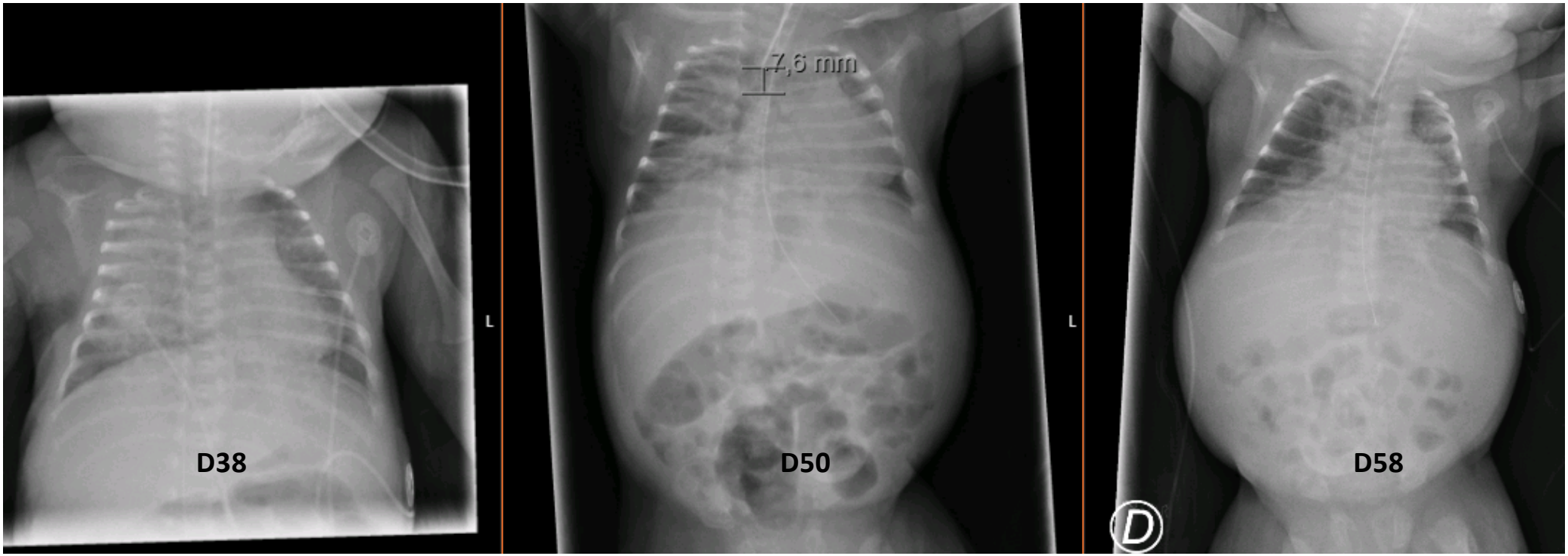
D42 **CERVICAL LUMP**

↓

CERVICAL LUMP**S**

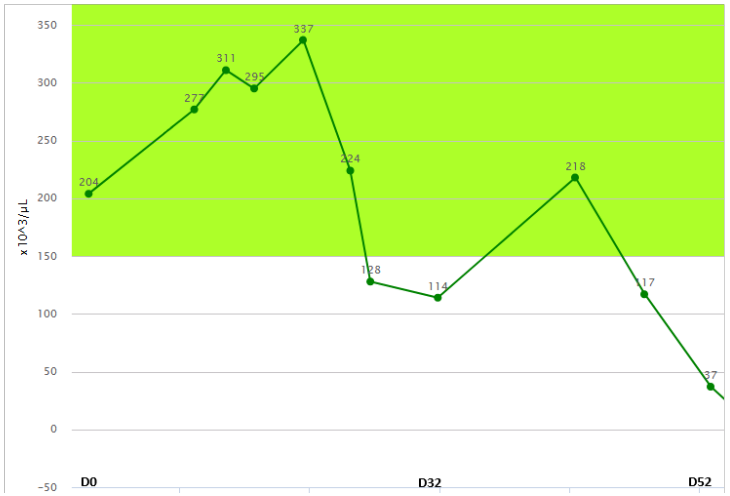
US: multiple centimetric lymphadenopathies bilaterally in the lateral cervical region without necrosis or abscess visualized.

Chest X-Ray



Biology D52

- Hb 9,2g/dL ↓
- Plt 37000/µL ↓
- WBC 16500/µL
- CRP 116mg/L ↑
- Bilirubin 1,6mg/dL ↑
- ALT 126UI/L ↑
- ALP 250 UI/L
- GGT 761UI/L ↑



What would you do?

- 26w
- 3rd sepsis
- Episode of neutropenia
- Thrombopenia
- Cervical lump
- Clinical deterioration
- Pneumopathy
- Difficulties to ventilate

1. Immunologic screening?
2. Screening for CMV ?
3. Bone Scintigraphy?
4. Nothing?

What did we do?

- CMV – Culture on urine : Positive 3x
- CMV – PCR on ETA : Positive

Table 2 Table of clinical presentations to trigger testing for pCMV

Risk factors	▶ <32 weeks' gestation ▶ <1500 g birth weight ▶ Exposed to breast milk from a CMV-seropositive mother
Clinical features	▶ Sepsis-like symptoms ▶ Respiratory distress ▶ Hepatomegaly ▶ Splenomegaly ▶ Cholestatic jaundice ▶ NEC ▶ BPD
Abnormal laboratory markers	▶ Thrombocytopaenia (<100×10^9/μL) ▶ Neutropaenia (<$0.5/mm^3$) ▶ Raised liver enzymes (AST >150 U/L, ALT >90 U/L, Gamma GT >200 IU/L) ▶ Conjugated hyperbilirubinaemia
Imaging	▶ CXR: evidence of pneumonitis ▶ CrUSS: lenticulostriatal vasculopathy, germinolytic cysts ▶ Findings consistent with NEC

BPD, bronchopulmonary dysplasia; CMV, cytomegalovirus; CrUSS, cranial ultrasound scan; CXR, chest X-ray; NEC, necrotising enterocolitis; pCMV, postnatal cytomegalovirus.

Postnatally acquired cytomegalovirus infection in extremely premature infants: how best to manage?

Seilesh Kadambari [1], Elizabeth Whittaker [2, 3], Hermione Lyall [2]

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Do we Treat?

YES

- Symptoms
- Pneumopathy
- Difficult to ventilate

ARE WE SURE IT IS THE REAL PROBLEM?

NO

- Thrombocytopenia
- Neutropenia
- Anaemia
- Renal dysfunction
- Liver dysfunction

CAN HE BE BETTER WITHOUT TREATMENT?

What did we do?

- Mycobacterium Tuberculosis on ETA
  - Direct microscopic examination : Negative 3x **D54**
  - PCR : LOW POSITIVE
  - CULTURE: … ongoing

→ TREAT ?

YES

- Symptoms
- Pneumopathy
- Difficult to ventilate

NO

- No proof of active TBC
- No culture / antibiogram
- Side effects of medication

Evaluation : Issiagha

- Repeat PCR on ETA : low positive
- Ask the lab : “low positive is positive”
- Repeat Direct Exam on ETA : Negative every day
- IDR negative
- CRL : too unstable to perform
- Quantiferon : too much blood needed
- Cutlure BK on urine : negative

Evaluation : Issiagha

- Clinical examination: dermatological lesions growing
  - SCROFULODERM?

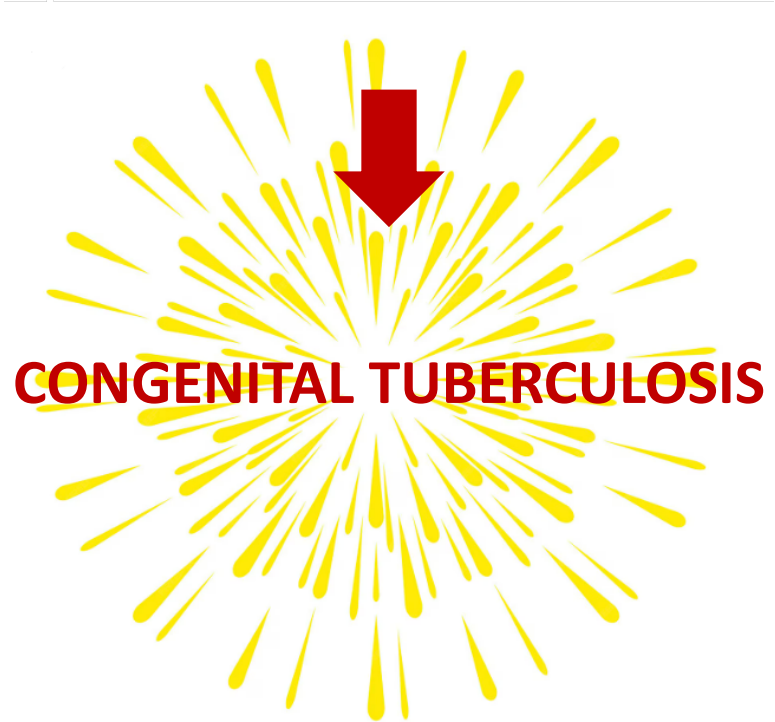
PUNCTURE : …in progress

Evaluation : Parents

- Dad
  - coughs → Expectoration : negative
  - X-Ray : negative
  - IDR : positive
- Mum:
  - X-Ray: negative
  - IDR : positive
  - Ask lab in UCL to get the placenta back to check for TBC : no sign of tbc, microbiological samples thrown away after 1 month
  - Biopsy of the endometrium: in progress

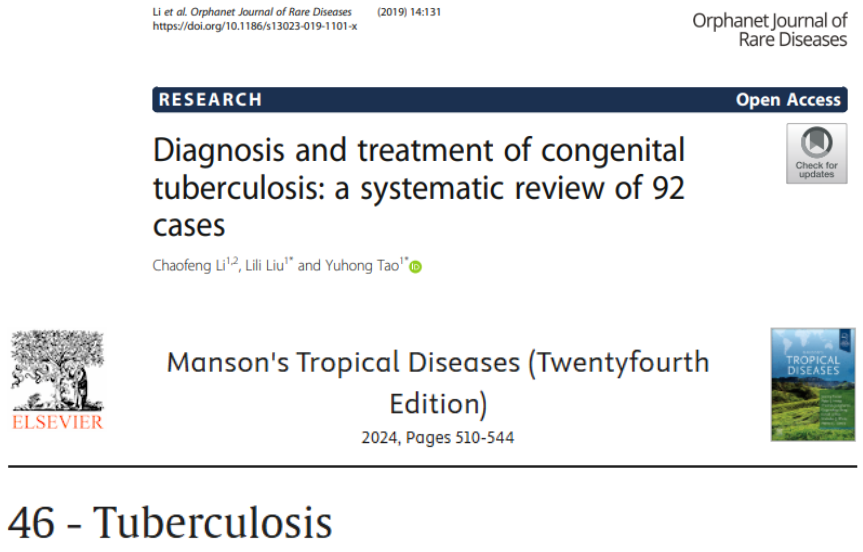
Day 59: results

- Biopsy of the Scrofuloderm: culture positive for Mycobacterium Tuberculosis
- Biopsy of the Endometrium : PCR positive for Mycobacterium Tuberculosis



Congenital Tuberculosis

- Transmission :
  - Placenta → Liver / Lungs or
  - Maternal genital tract → Gastro-intestinal tract / Lungs
- Rare (376 cases reported worldwide by 2005)
- Symptoms (2-3 weeks after birth)
  - Hepatosplenomegaly
  - Respiratory distress
  - Fever
  - Lymphadenopathy
  - Abdominal distension
  - Papular skin lesions
- Mortality as high as 50%

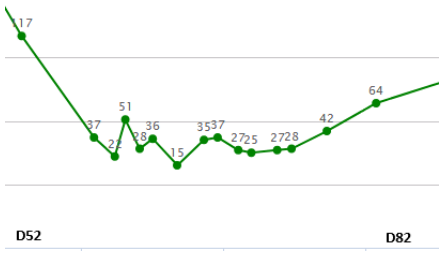


Evolution

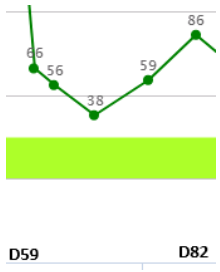
- Adapting treatment to antibiogram (Resistance: Ethambutol)

Platelets:

- Multiple transfusion



AST:



- Blood CMV viral load : 338000 copies/ml

➔ Start treatment for CMV on Day 82

Evolution

- Reduction of lymph nodes
- Reduction of CMV viral load
- Strat Ursochol® for multifactorial cholestasis on Day 71
  - <Prolonged parenteral nutrition
  - <Tbc treatment
  - <Post-natal CMV
- Endotracheal Tube removal on Day 76
- First Shots (hexavalent + pneumococcus) on Day 95

Day 97 …

- Sudden deterioration of clinical condition
- Increased cervical lumps
- Respiratory distress → Intubation
- Hepato-splenomegaly
- Fever
- Oedema

Day 97

- Biology:
  - Hb 12,1g/dL
  - Plt 85000/µL
  - WBC 6300/µL – Neutrophiles 870/µL
  - CRP 23,1mg/L
- Lumbar Puncture: no sign of infection
- Abdominal US: ascites, hepatosplenomegaly

Diagnosis?

1. Sepsis ?
2. Treatment failure due to vomiting ?
3. Reaction to shots ?
4. None of the proposition ?

Diagnosis

- **Paradoxical tuberculosis reaction:**
  - Typically, 40 days after treatment initiation
  - 5-30%
  - Symptoms:
    - T°
    - Clinical Deterioration
    - Elevated inflammatory markers
    - Painful lymphadenopathy with compression syndrome (as ascites, respiratory distress…)
    - Recurrence of previous symptoms
  - Diagnosis of exclusion
  - Treatment
    - Corticosteroïd

Review > Rev Med Interne. 2024 May;45(5):279-288. doi: 10.1016/j.revmed.2024.01.008.
Epub 2024 Jan 23.

[Paradoxical tuberculosis reaction]

[Article in French]
L-D Azoulay [1], A-L Houist [2], E Feredj [2], W Vindrios [2], S Gallien [2]

Affiliations + expand

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Conclusion

- Lumps are not harmless
- Congenital Tuberculosis is rare
- Difficult to diagnose
- Concomitant with postnatal CMV
- Importance of early intervention
- Paradoxical Tuberculosis Reaction

Thank you !