

SURVEY OF CONGENITAL CMV IN FRANCE : FOCUS ON FETAL AND NEWBORN SYMPTOMATOLOGY IN 2018 AND 2019

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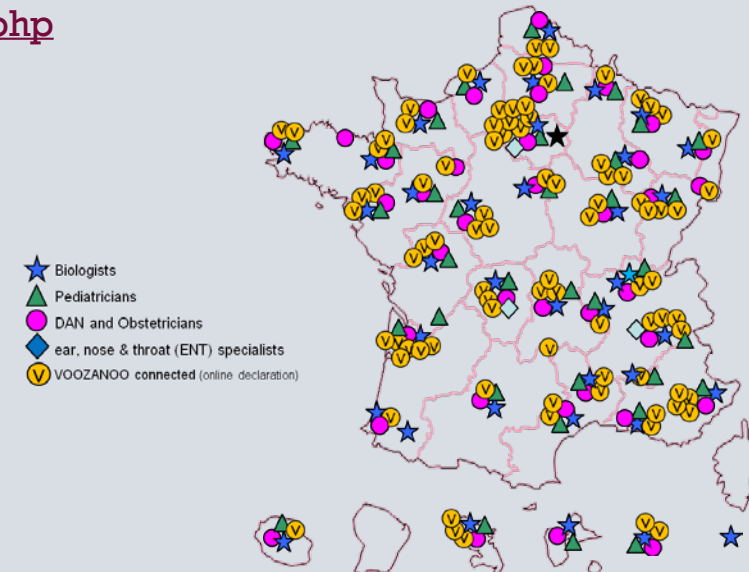
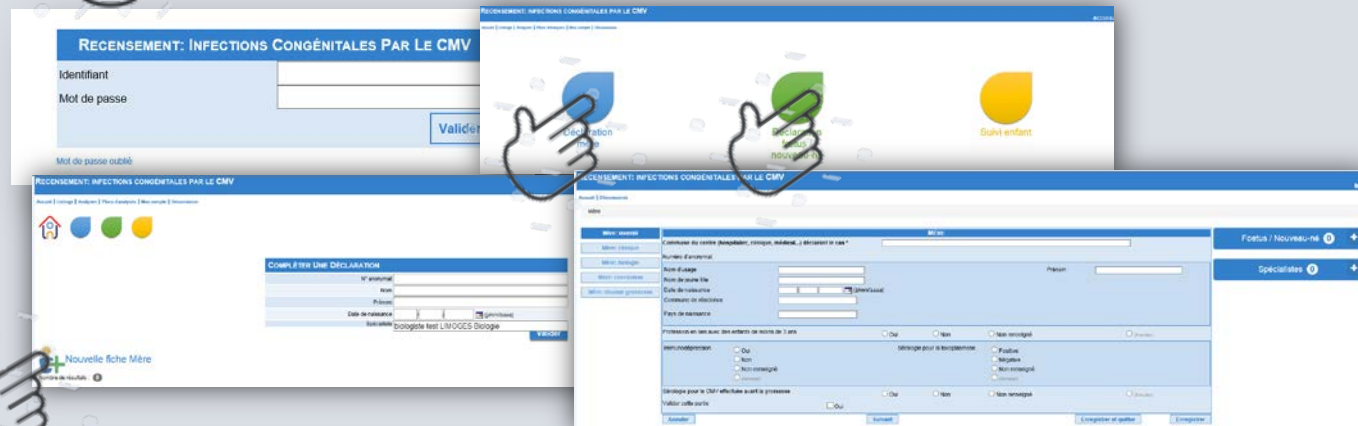
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National Reference Center for Herpesviruses, France

INTRODUCTION

- Absence of congenital CMV screening:
→ collecting data is difficult
- As a National Reference Center for Herpesviruses:
→ systematic declaration since 2006: 1264 cases
→ online declaration since 2016: 448 cases better documented
→ VOOZANOO Platform

<https://ssl.voozanoo.net/cnrcmv/code/enquetes//784105987/scripts/authentify.php>



METHODS

SURVEY

- **Collection of 1266 cases since 2006 to 2019 from:**
 - 43 metropolitans
 - several overseas regions (covering quite all the French territory)
 - ✓ 43 prenatal diagnosis centers and obstetricians,
 - ✓ 38 virology laboratories,
 - ✓ 35 neonatal pediatric,
 - ✓ 3 ENT (Ear, Nose and Throat) departments.

FOCUS

- **206 better documented cases in 2018 and 2019: study of fetal and newborn symptomatology**
 - ➡ Extraction of voozanoo declared cases

METHODS

CASES CLASSIFICATION *

Asymptomatic

- **Absence of sonographic or clinical symptoms**
- **Absence of biological signs, or one isolated biological sign**
- **IUGR or prematurity (w/o other clinical sign)**

Symptomatic

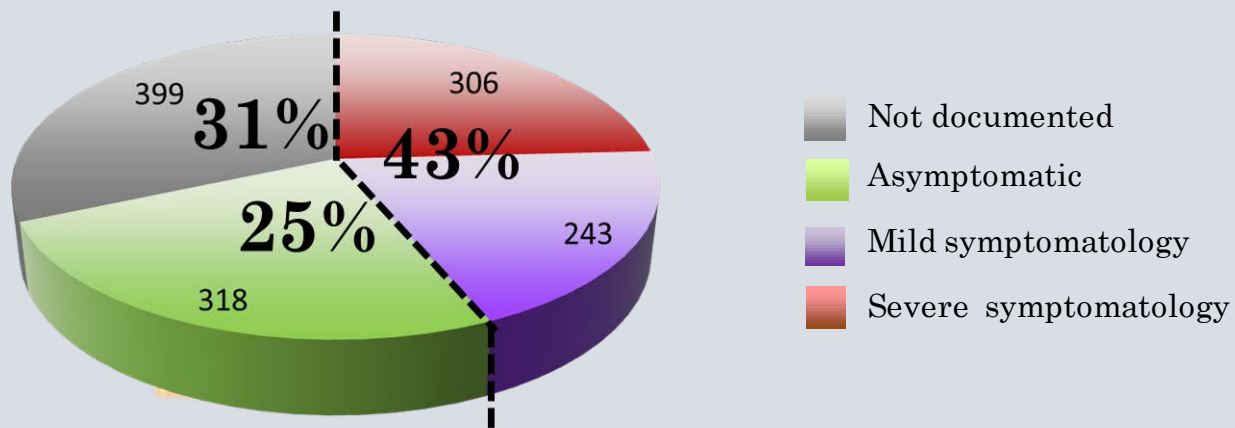
- **Mild** (only since 2018): extra-neurological symptoms

Presence of 1 or 2 of the following clinical signs:
petechiae, hepatomegaly, enterocolitis, hepatitis or biological signs, mild deafness.

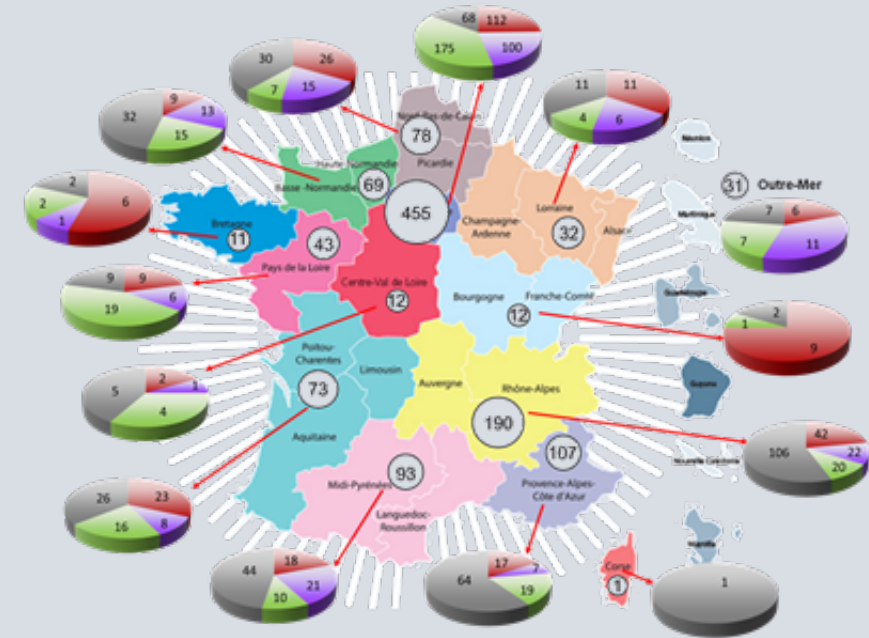
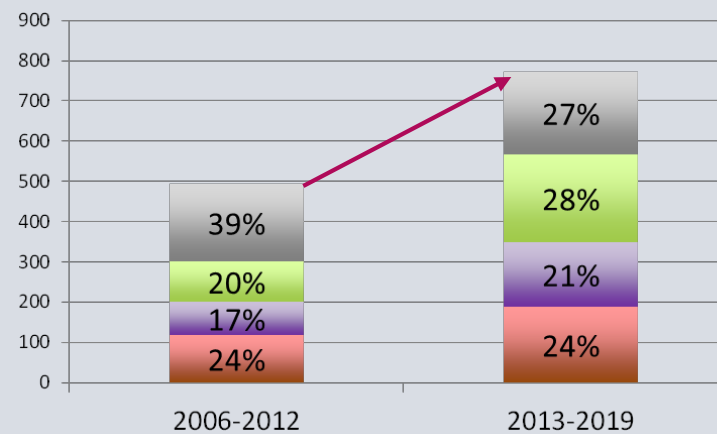
- **Moderate**: extra-neurological symptoms
 - biological sign (s) associated with at least 2 of the following clinical signs: splenomegaly, petechiae, respiratory distress, hepatomegaly, pneumopathy, enterocolitis, hepatitis, fever.
 - more than two clinical signs among the following: splenomegaly, petechiae, respiratory distress, hepatomegaly, pneumopathy, enterocolitis, hepatitis, fever.
- **Severe**:
 - unilateral deafness (<21 dB), chorioretinitis.
 - neurological signs: bilateral deafness, microcephaly, tone disorder, white matter abnormalities, ventriculomegaly...

RESULTS: SURVEY SINCE 2006 TO 2019

1266 cases declared: SYMPTOMATOLOGY

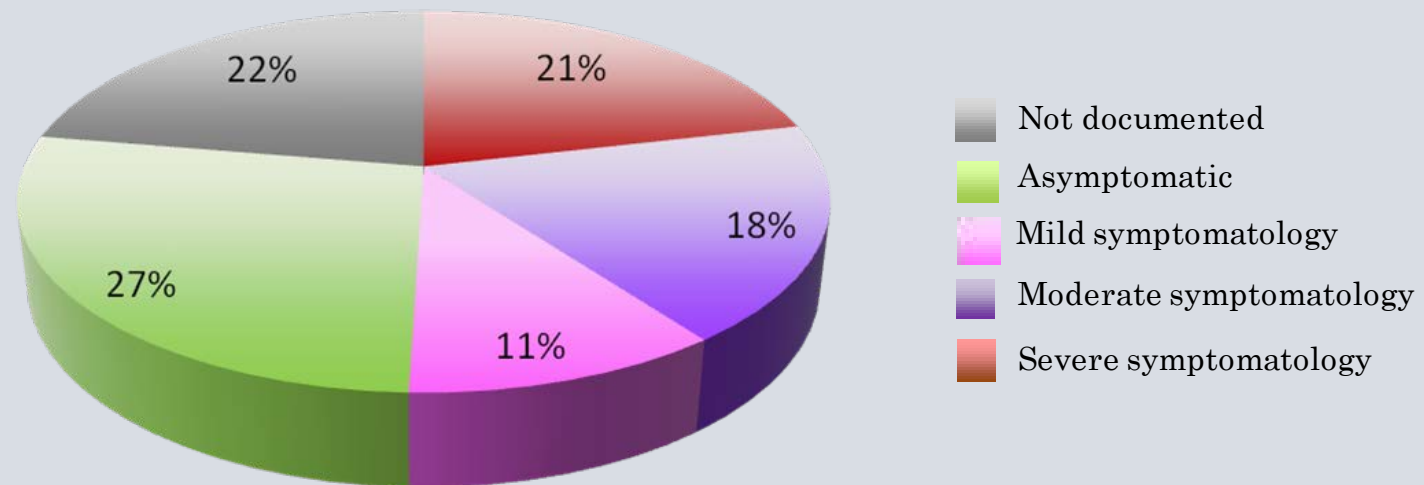


- 2006-2012 compared to 2013-2019



RESULTS: FOCUS ON 2018-2019

- **206 cases declared: SYMPTOMATOLOGY**



RESULTS: FOCUS ON 2018-2019

206 cases declared: FETAL DIAGNOSIS AVAILABLE ?

Antenatal investigations for these 206 CMV congenital infections?

| Not documented | NO | YES |
|----------------|----------|-----------|
| 53 (26%) | 42 (20%) | 111 (54%) |

6 severe

4 severe
(1 death at D6)

1 severe

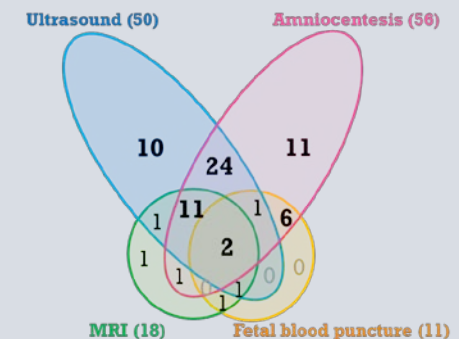
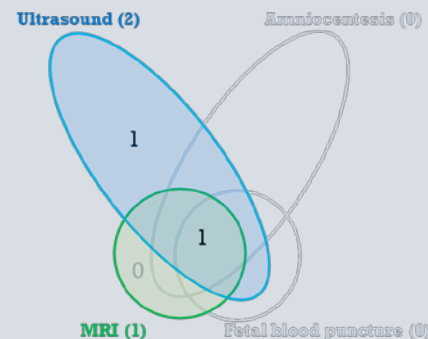
0 severe

Possible to conclude?

| NO | YES |
|----|-----|
| 9 | 102 |

Conclusion = fetal CMV infection?

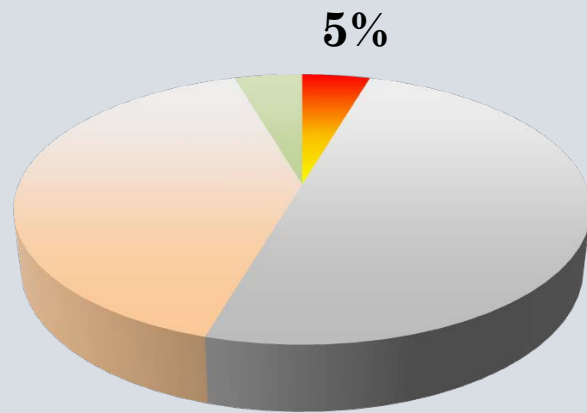
| NO | YES |
|----|-----|
| 3 | 99 |



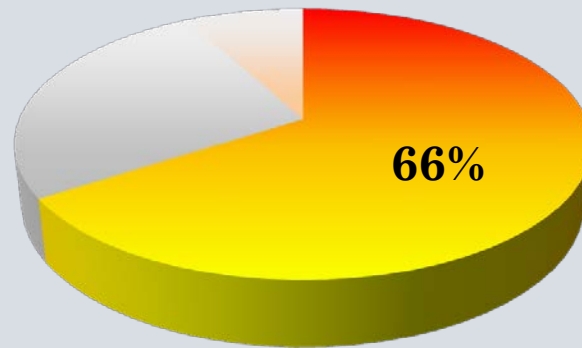
RESULTS: FOCUS ON 2018-2019

○ 206 cases declared: FETAL DIAGNOSIS / SYMPTOMATOLOGY

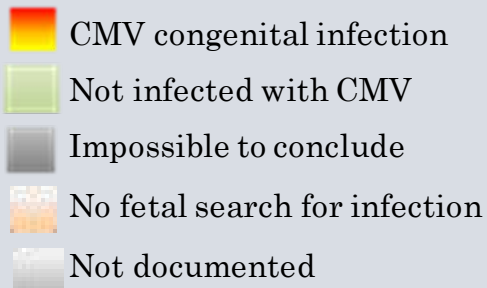
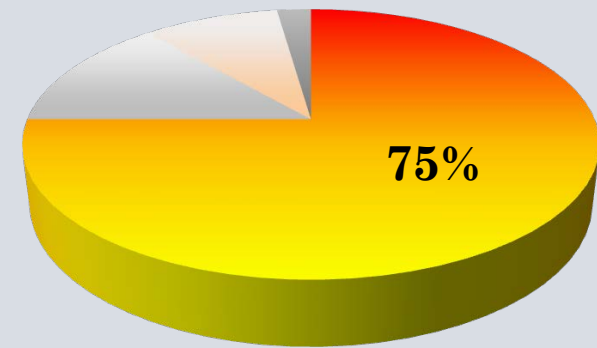
Mild: 22 cases
(11%)



Moderate: 38 cases
(18%)



Severe: 44 cases
(21%)



RESULTS: FOCUS ON 2018-2019

- 206 cases declared: **PREGNANCY OUTCOMES**

Mild: 22 cases
(11%)

21 births
1 not documented

Moderate: 38 cases
(18%)

38 births

Severe: 44 cases
(21%)

13 births
2 death *in utero*
29 medical termination

- Births which were **NOT DIAGNOSED *IN UTERO***

10



3

(1 death at D8)*




5

(1 death at D6)*



CONCLUSION

- Work remains to be done to complete the missing data.
- These data are nevertheless in agreement with previous clinical description of congenital CMV.
- Furthermore, even if moderate and severe cases are fairly well diagnosed *in utero*, there is still room for improvement.

 Better fetal diagnosis for better care at birth.



AKNOWLEDGMENTS



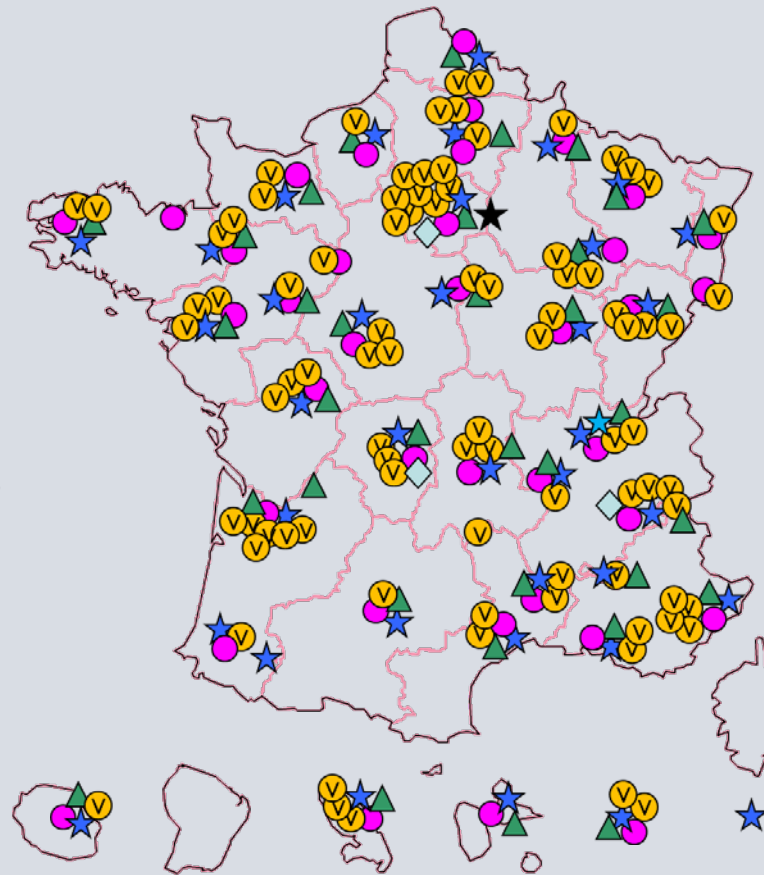
▲ Pediatricians

★ Biologists

V VOOZANOO
connected

● DAN and
Obstetricians

◆ ear, nose & throat
specialists



RESULTS: FOCUS ON 2018-2019

○ 206 cases declared: PREGNANCY OUTCOMES

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10



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(1 death at D8)



5

(1 death at D6)



1: bilateral deafness (treated)
2: pneumopathy, deafness (treated)
3: prematurity (not treated) and death (J6)
4: Deafness, petechiae (treated)
5: Deafness (treated)