

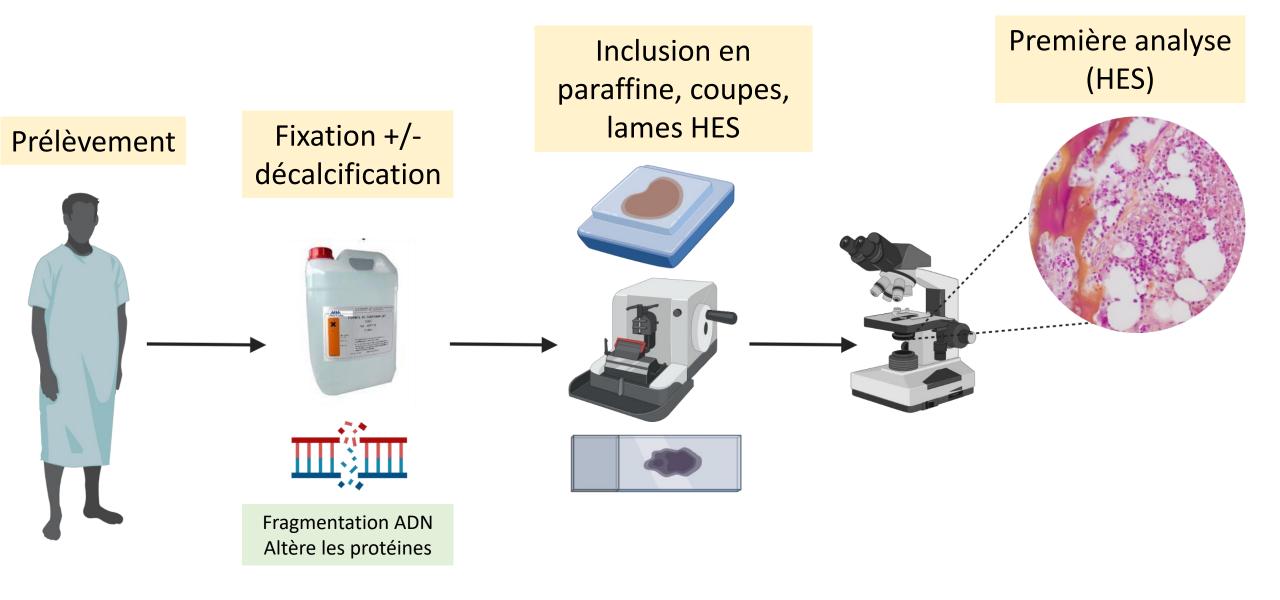


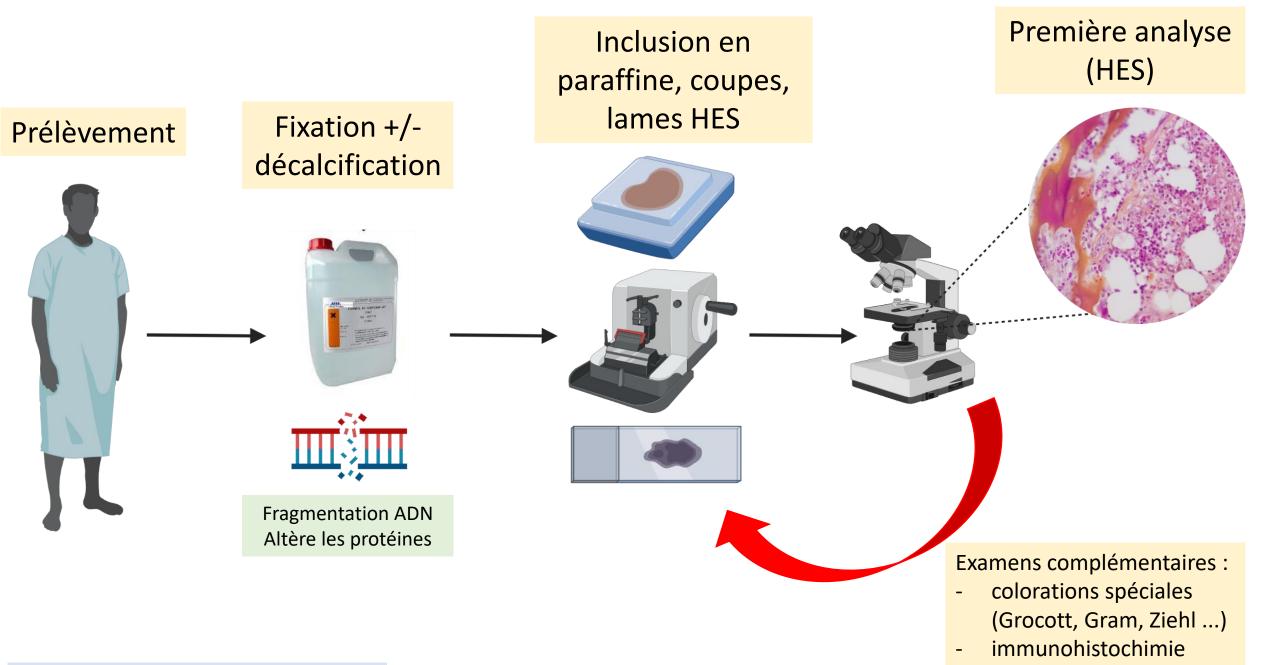
Histopathologie au cours des infections ostéoarticulaires

DIU infection ostéoarticulaire 2022-2023



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*HES = Hématoxyline-éosine-safran

biologie moléculaire

I- Histopathologie en cas d'infection aiguë

1) Définitions et aspects morphologiques

Major Criteria (at least one of the following)	Decision	
Two positive growths of the same organism using standard culture methods	Infected	
Sinus tract with evidence of communication to the joint or visualization of the prosthesis		

Minor Criteria	Threshold			
	Acute [∈]	Chronic	Score	Decision
Serum CRP (mg/L) <u>or</u> D-Dimer (ug/L)	100 Unknown	10 860	2	Combined preopera- tive and postoperative
Elevated Serum ESR (mm/hr)	No role	30	1	
Elevated Synovial WBC (cells/μL) or	10,000	3,000	3	
Leukocyte Esterase <u>or</u> Positive Alpha-defensin (signal/cutoff)	1.0	1.0		score: ≥6 Infected 3 to 5 Inconclusive* <3 Not Infected
Elevated Synovial PMN (%)	90	70	2	
Single Positive Culture			2	
Positive Histology			3	
Positive Intraoperative Purulence [¥]			3	

 $^{^{\}mathrm{e}}$ This criteria were never validated on acute infections. $^{\mathrm{v}}$ No role in suspected adverse local tissue reaction.

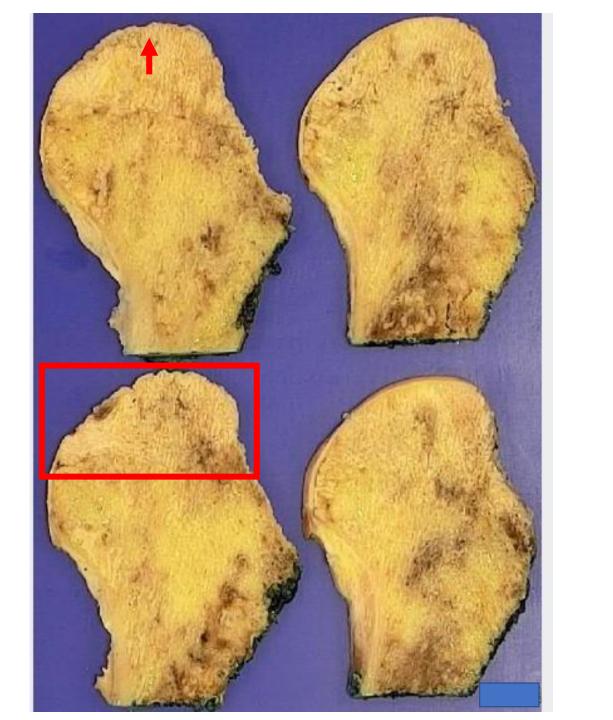
FIGURE 1. Proposed 2018 ICM Criteria for PJI.

^{*}Consider further molecular diagnostics such as next-generation sequencing

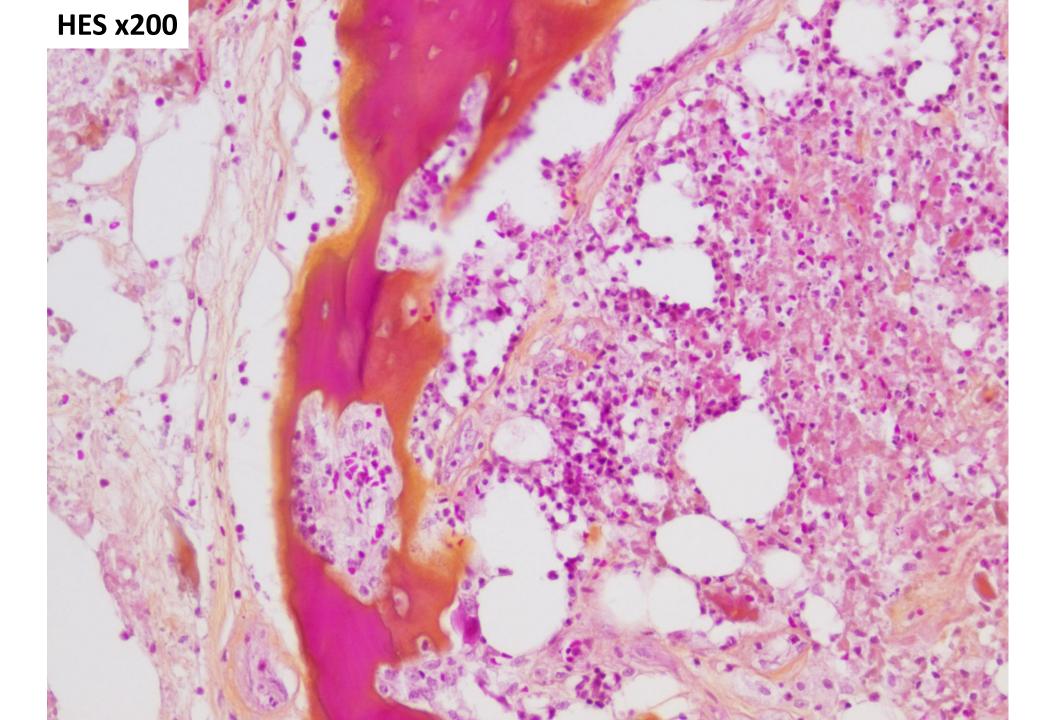
IOA aiguë : quelle définition ?

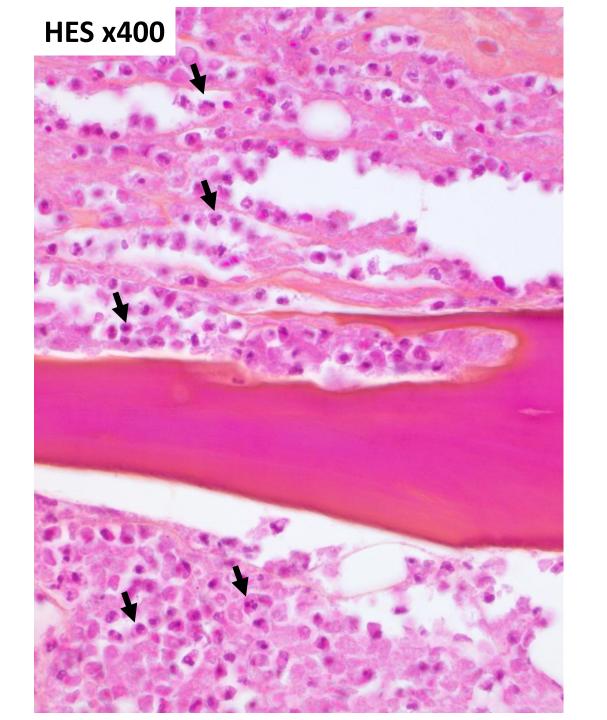
- ☐ Infection aiguë de prothèse articulaire (PJI) ou sur fracture (FRI)
 - > 5 polynucléaires neutrophiles / 5 champs au fort grossissement (x400)
 - Critère de Mirra : définit sur une cohorte de descellement de prothèse

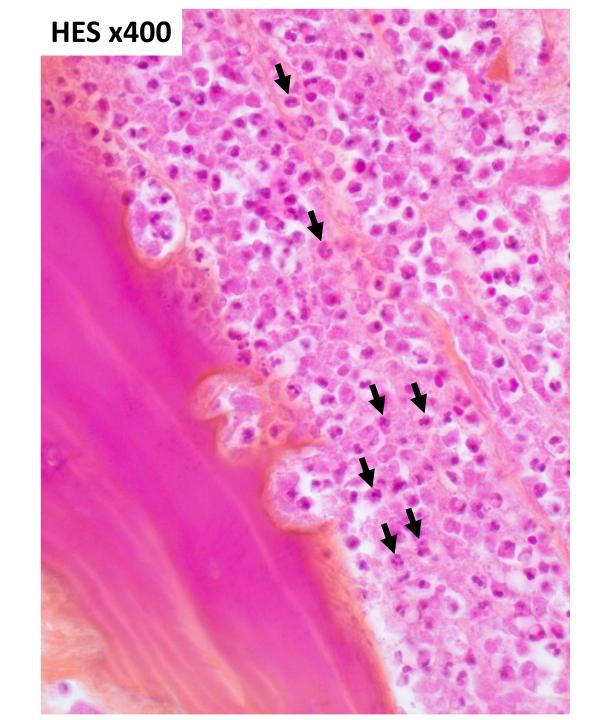
- ☐ Mais critère non absolu :
 - dans l'os (polynucléaires dans la moelle)
 - dans la synoviale (diagnostics différentiels)

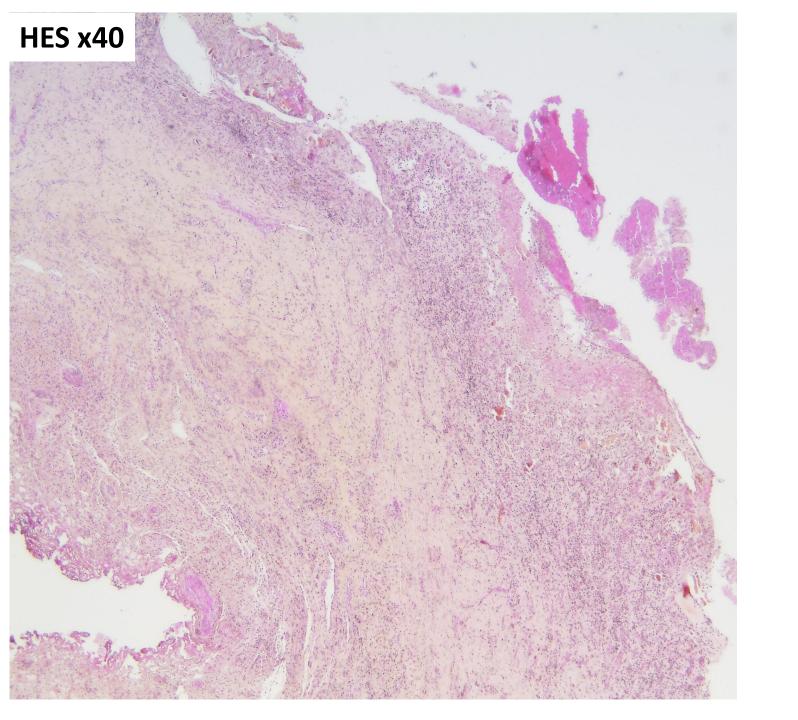


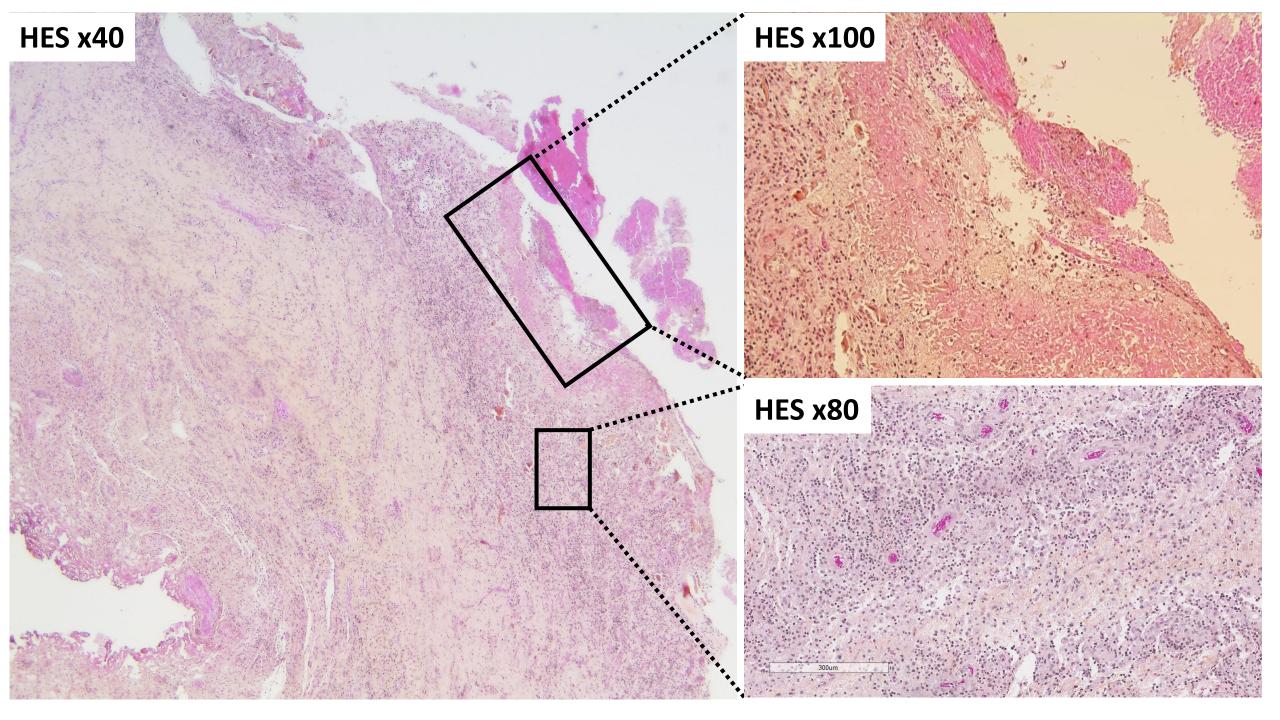


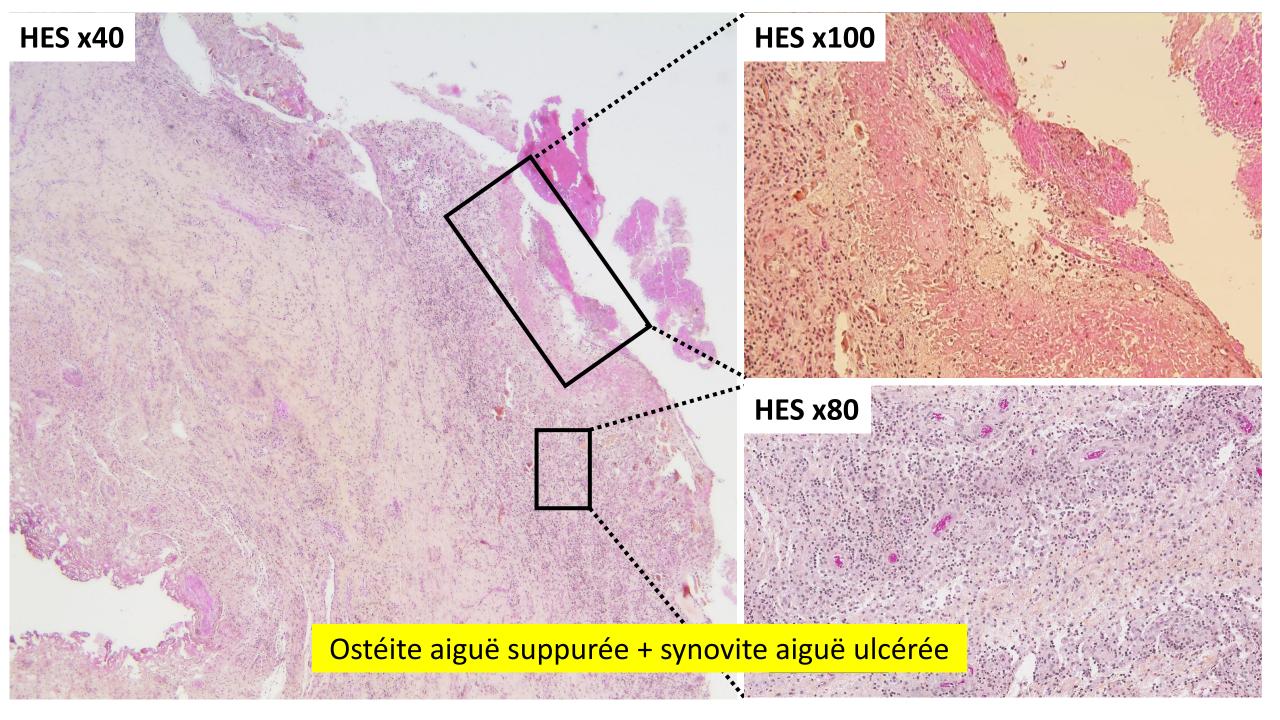






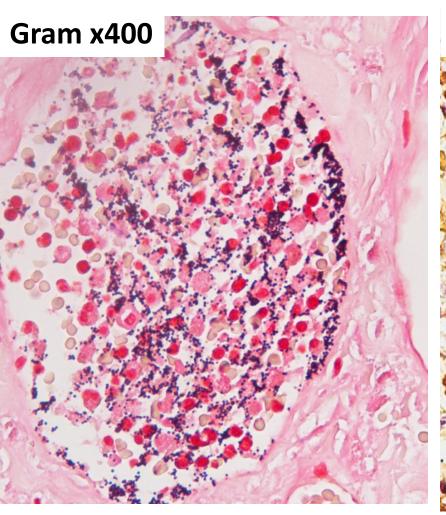


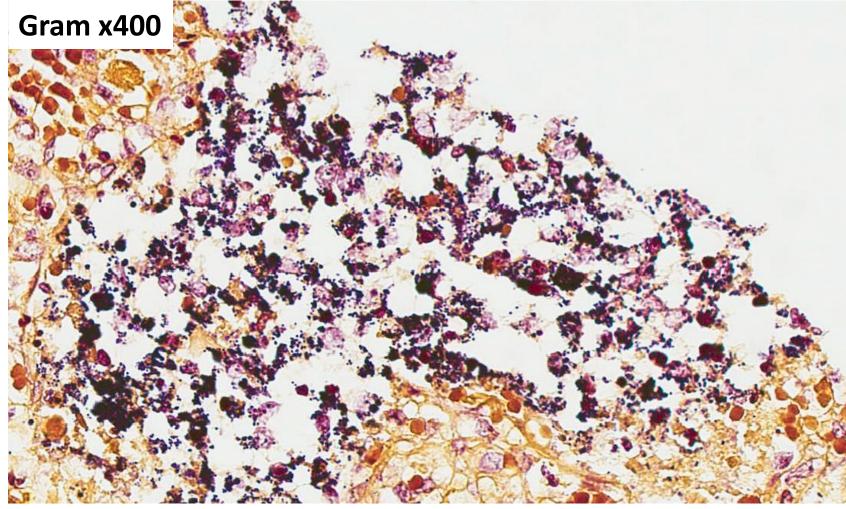


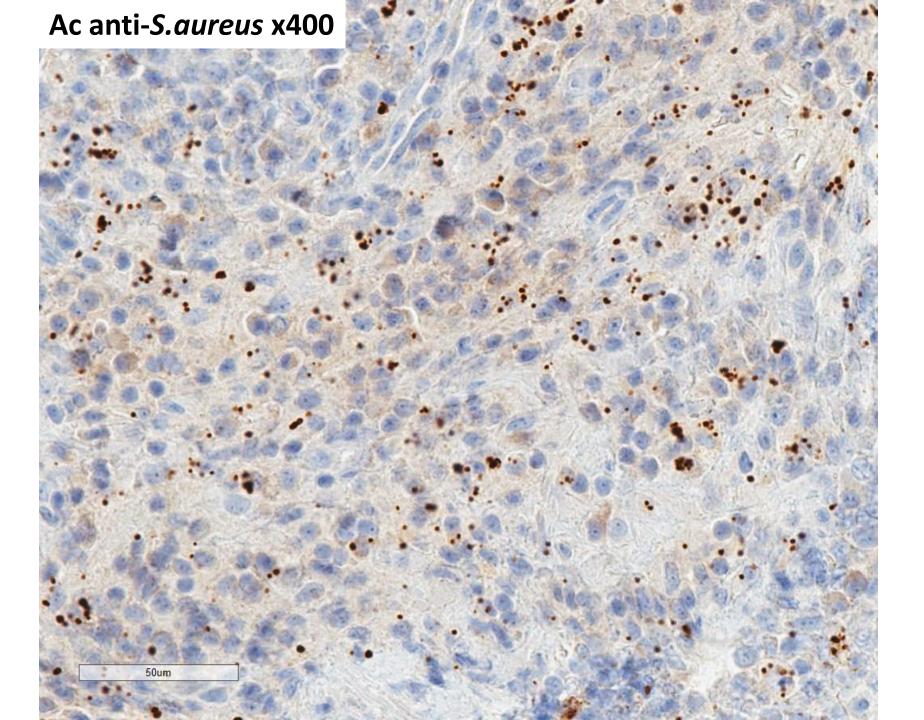


I- Histopathologie en cas d'infection aiguë

- 2) Les agents pathogènes
 - a) Bactériens
 - b) Fongiques

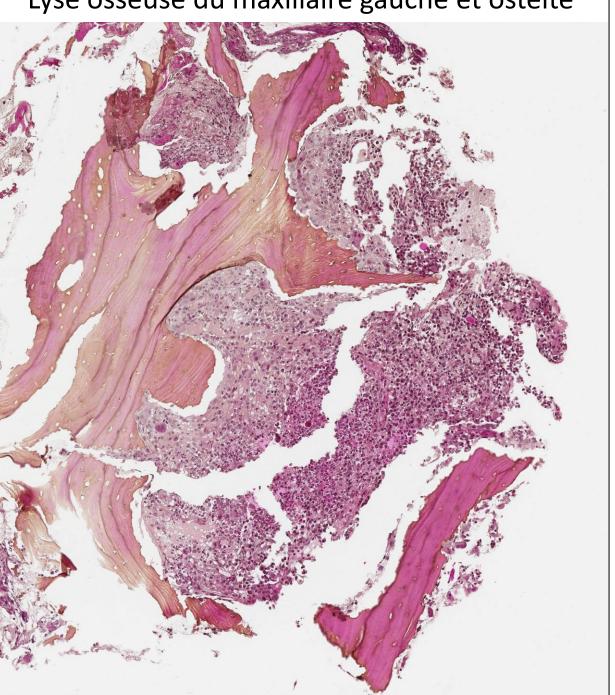


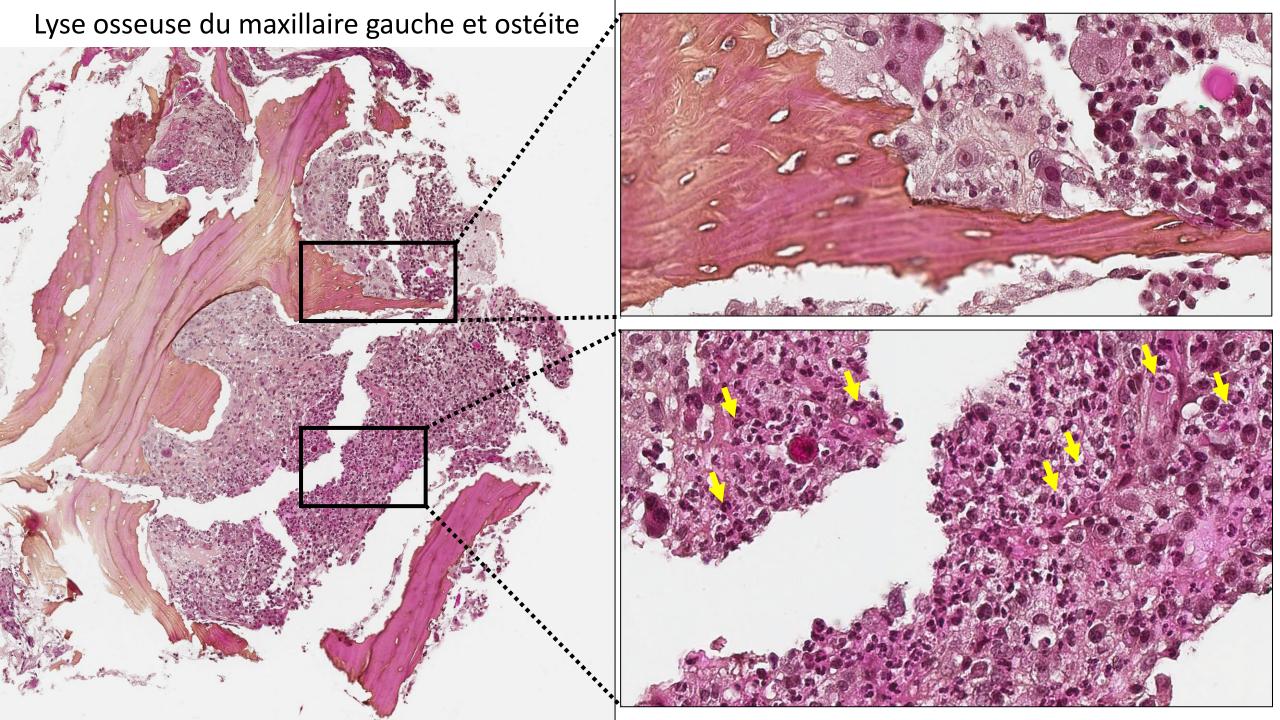


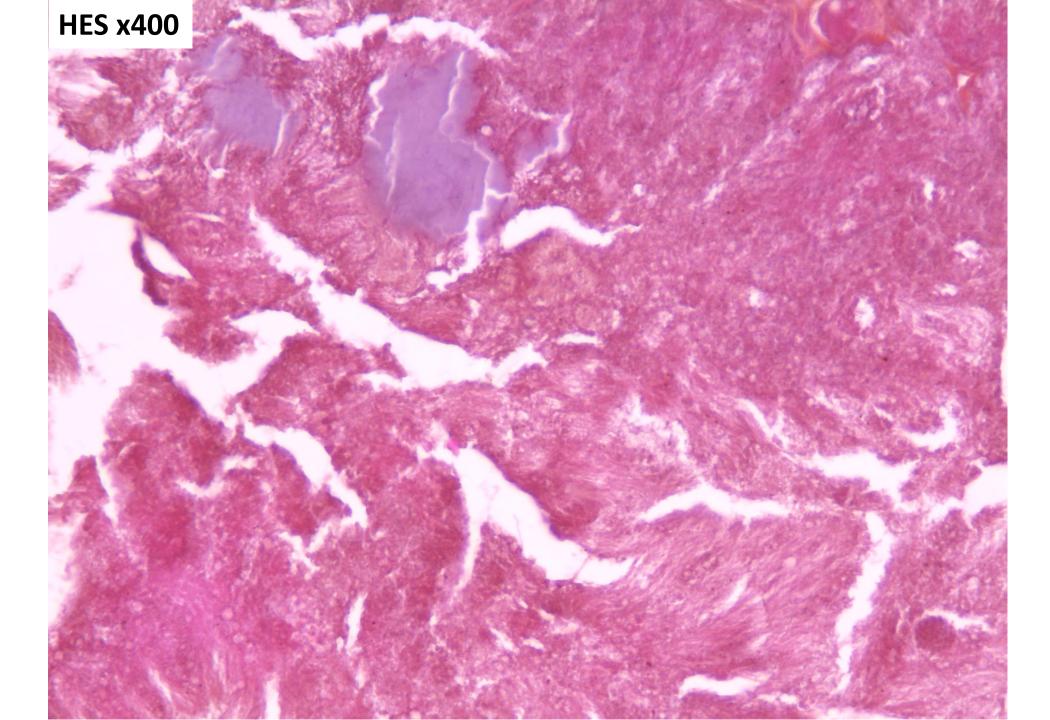


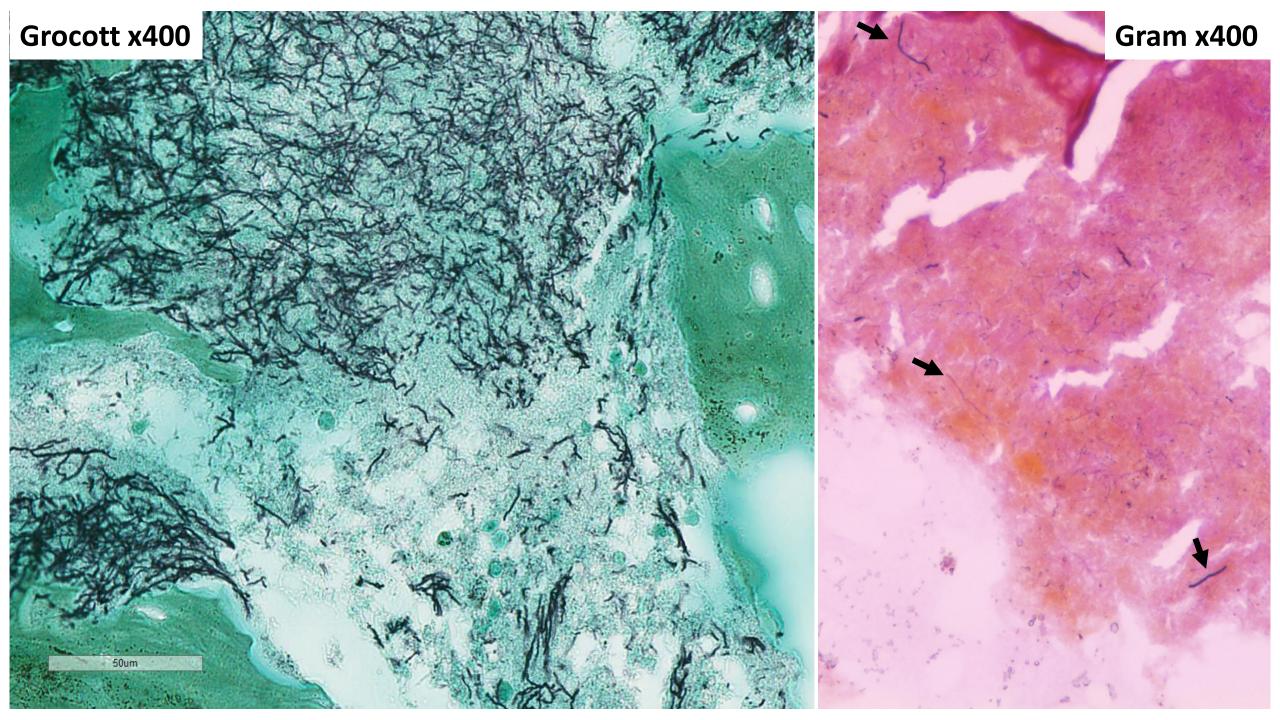
Exemple: cas clinique

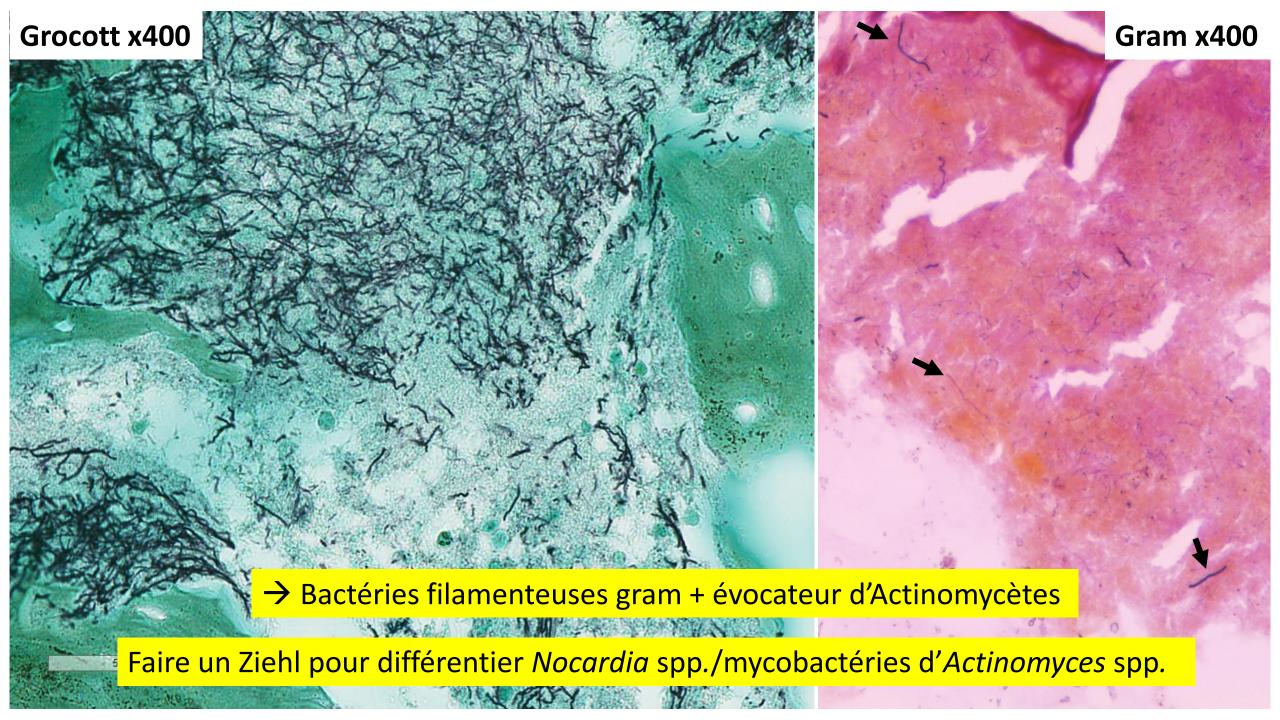
Lyse osseuse du maxillaire gauche et ostéite

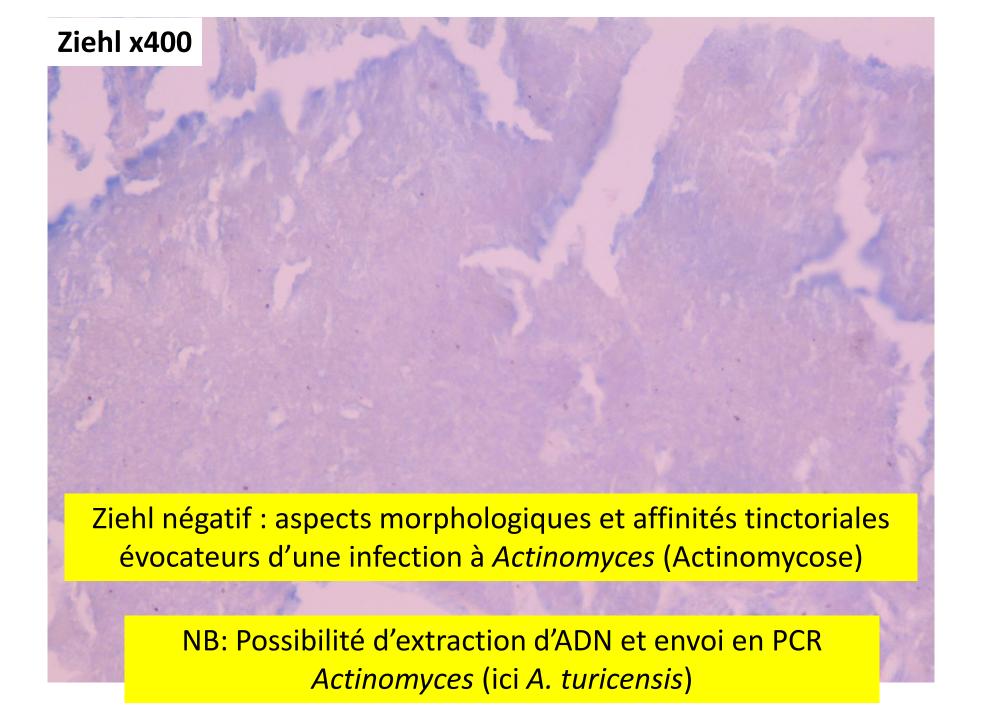






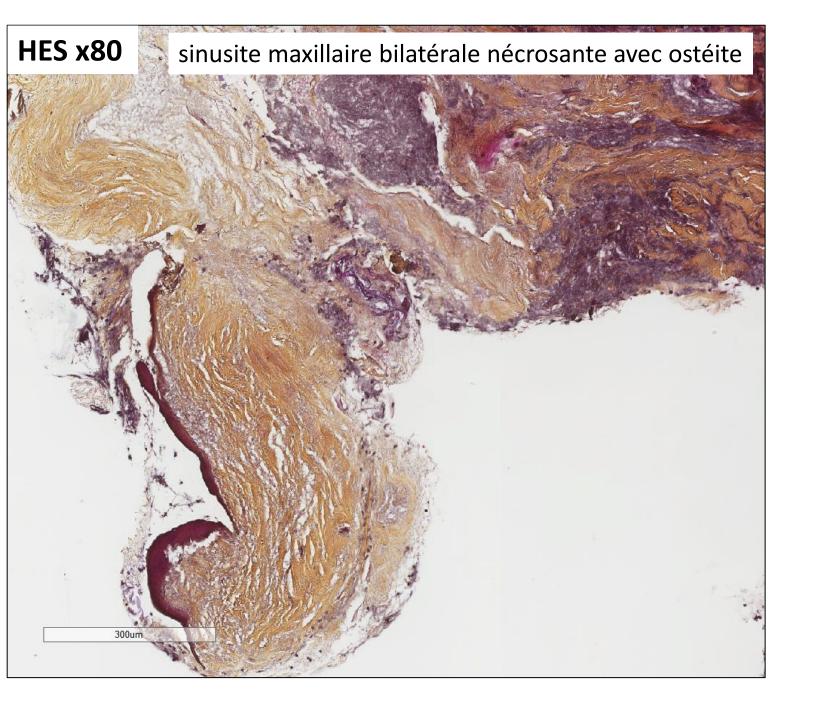


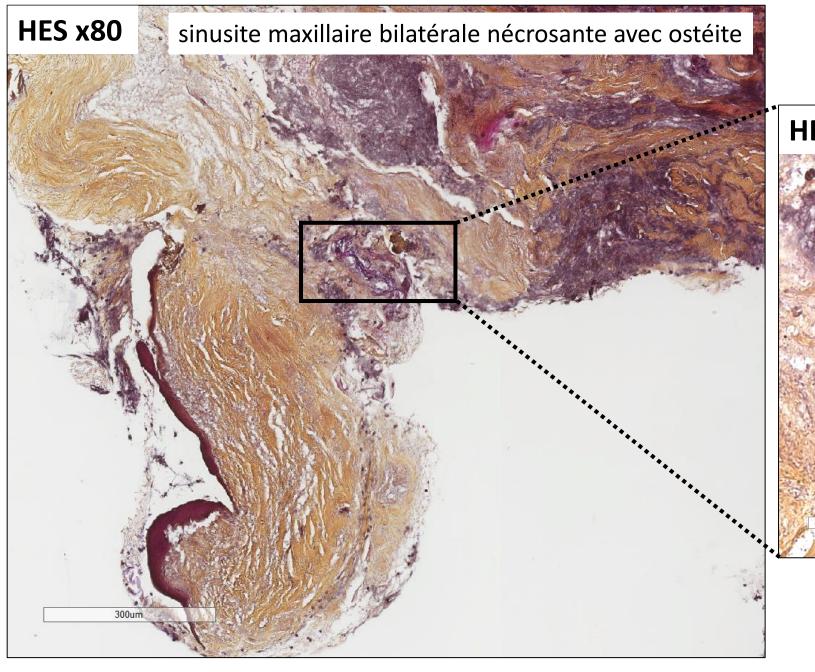


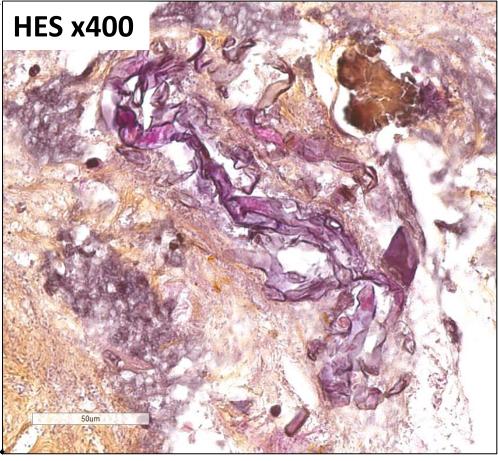


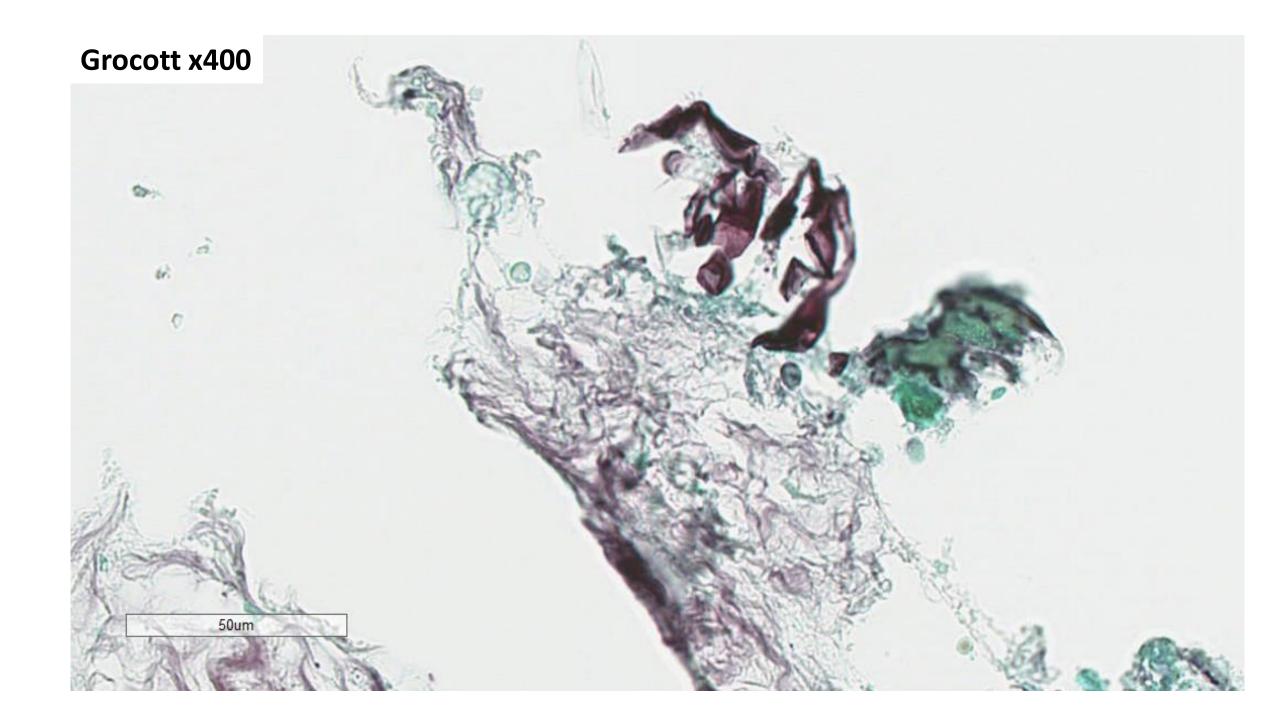
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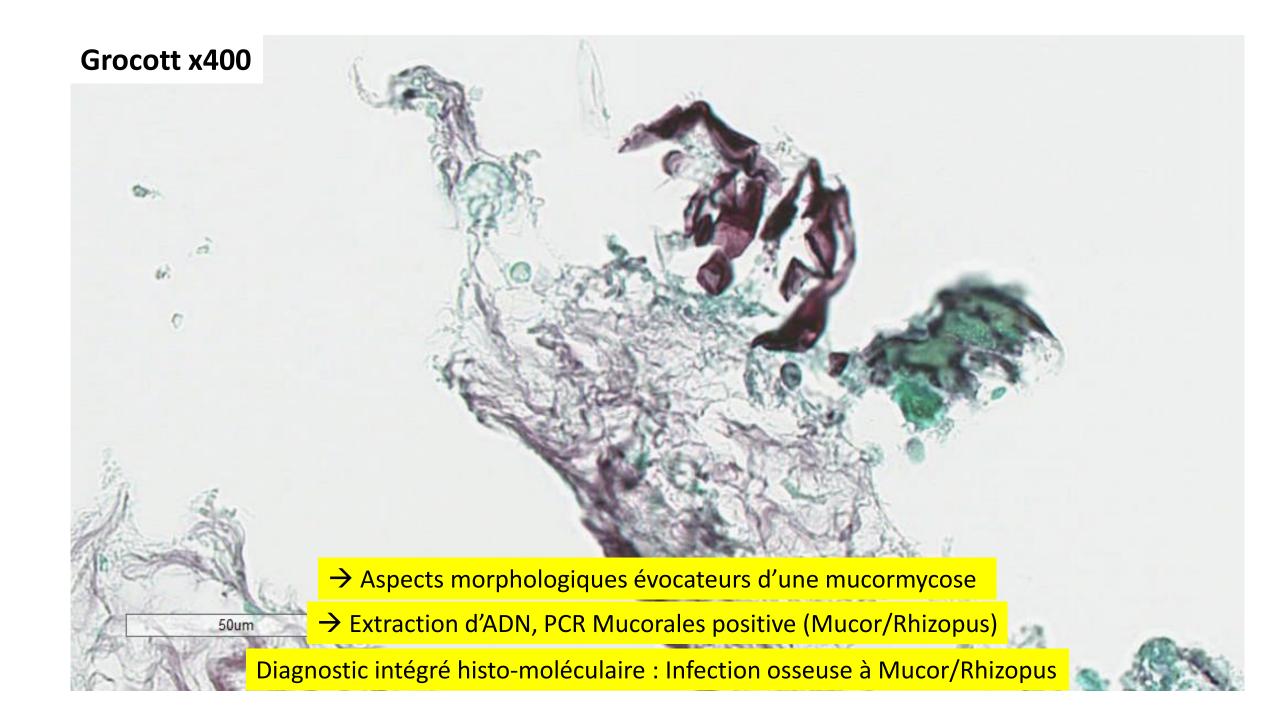
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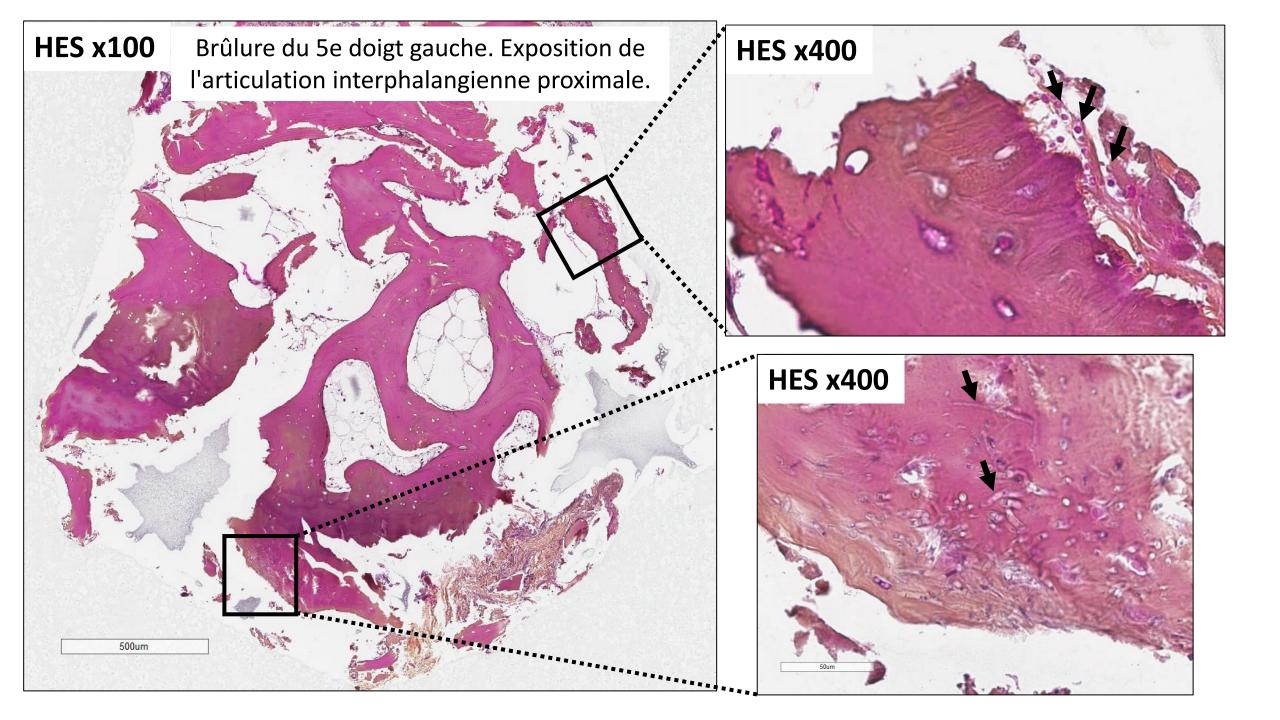


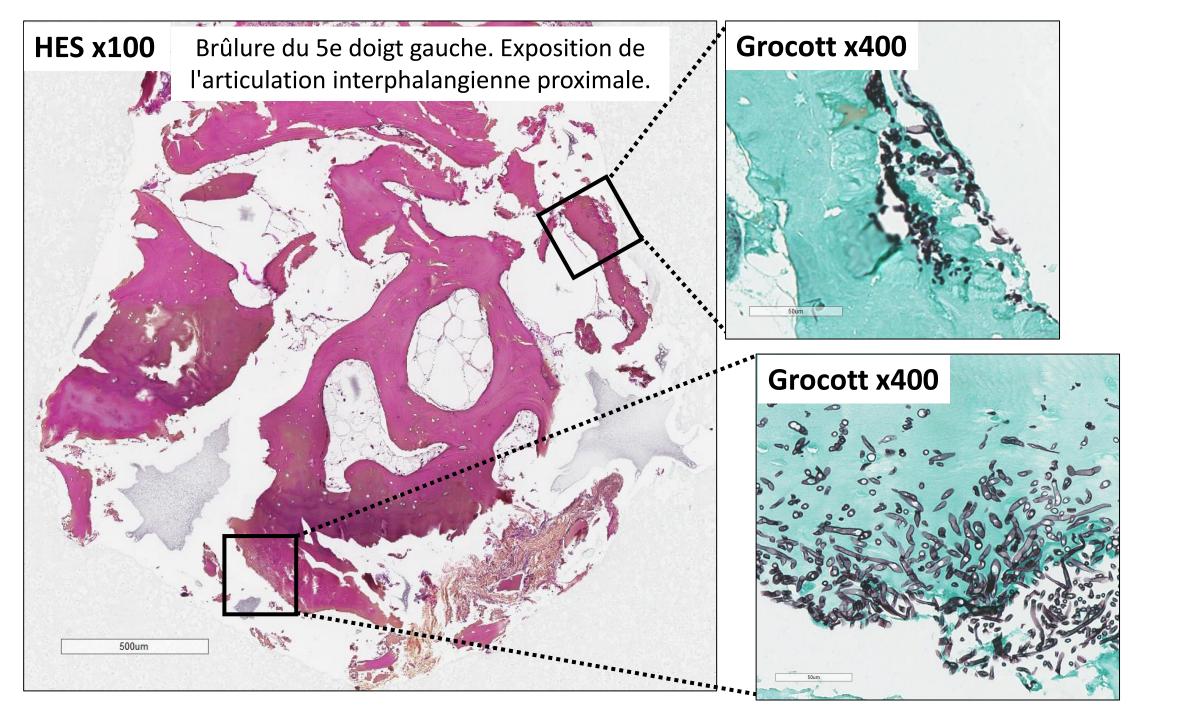


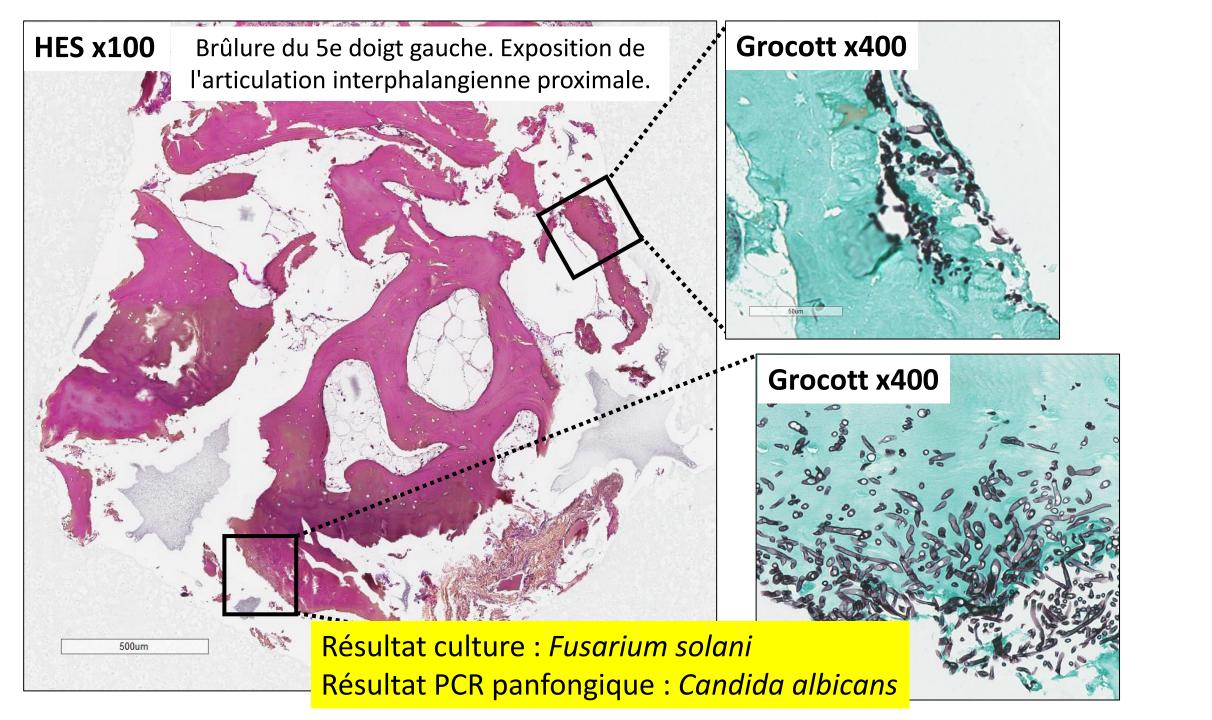










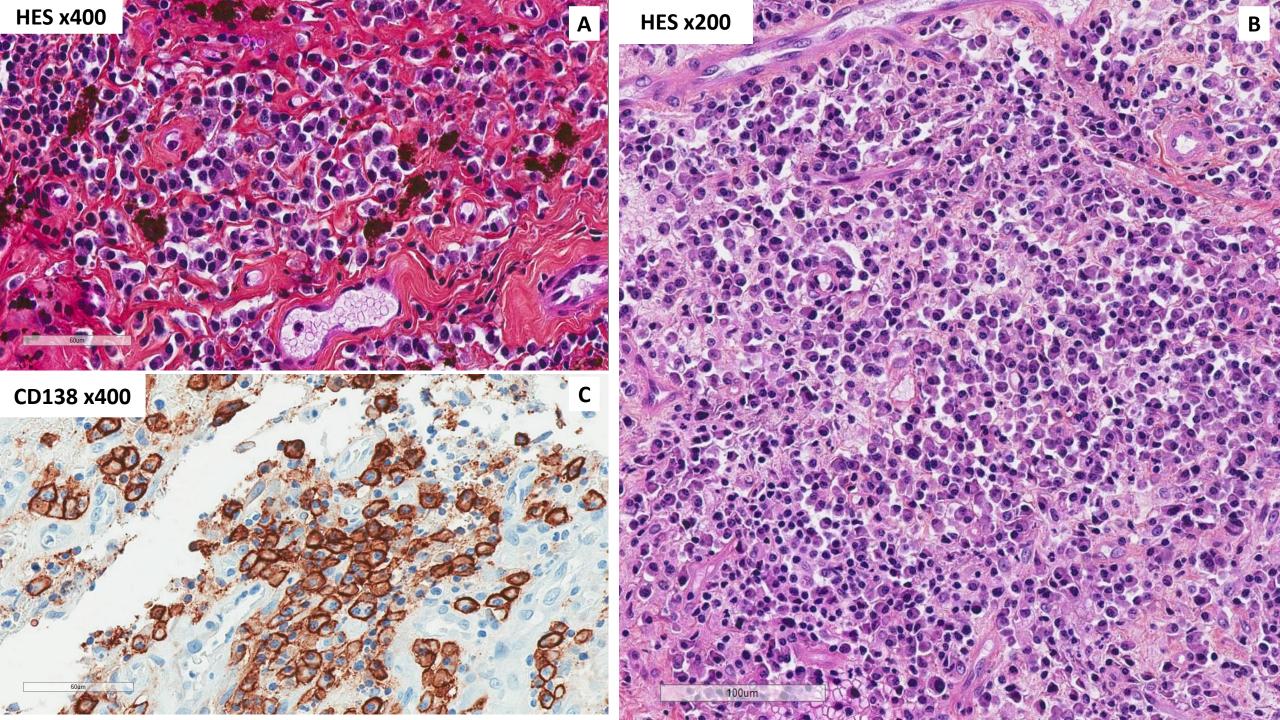


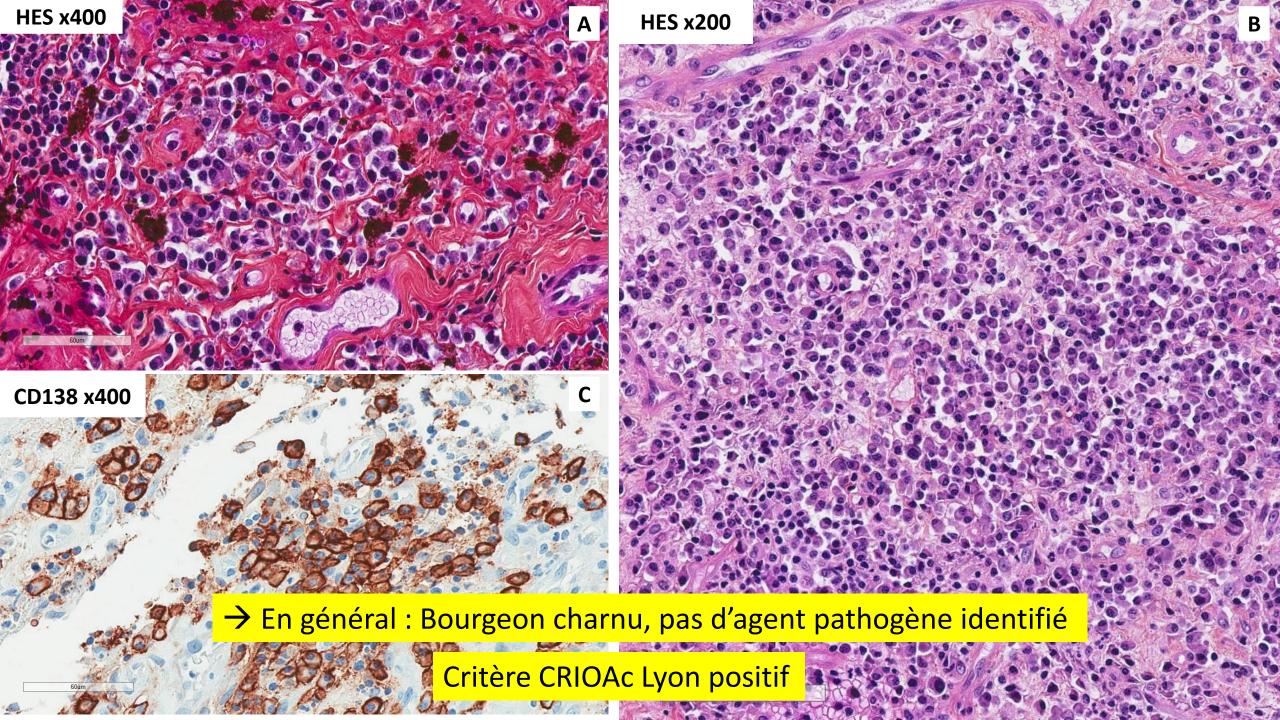
II- Histopathologie en cas d'infection chronique

- 1) Inflammation plasmocytaire
- 2) Autre

Contexte

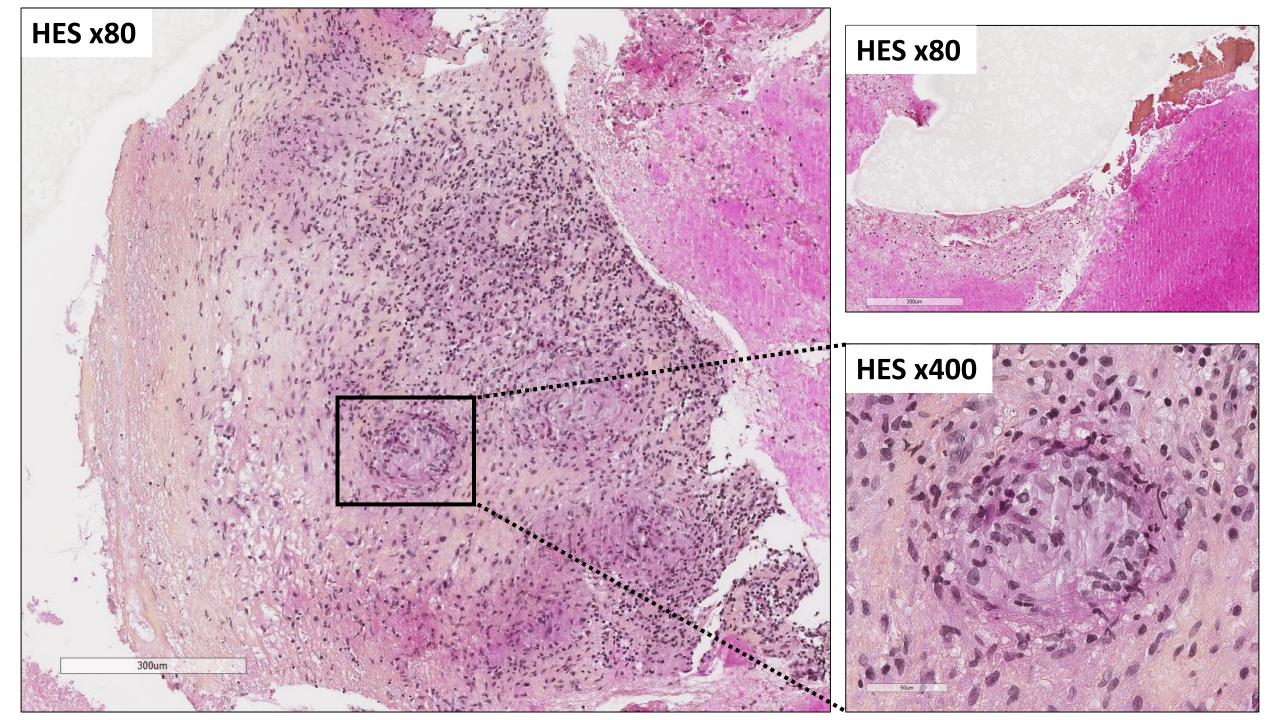
- Pas de définition histopathologique, challenge diagnostique
- Critère de Mirra souvent non atteint (parfois <2 PNN / 5 champs au fort grossissement)
- Critère CRIOAc Lyon : ≥ 5 plasmocytes / 5 champs au fort grossissement (x400) ? (mais plasmocytes seuls pas spécifiques ...)
- Pas d'agent pathogène visualisé

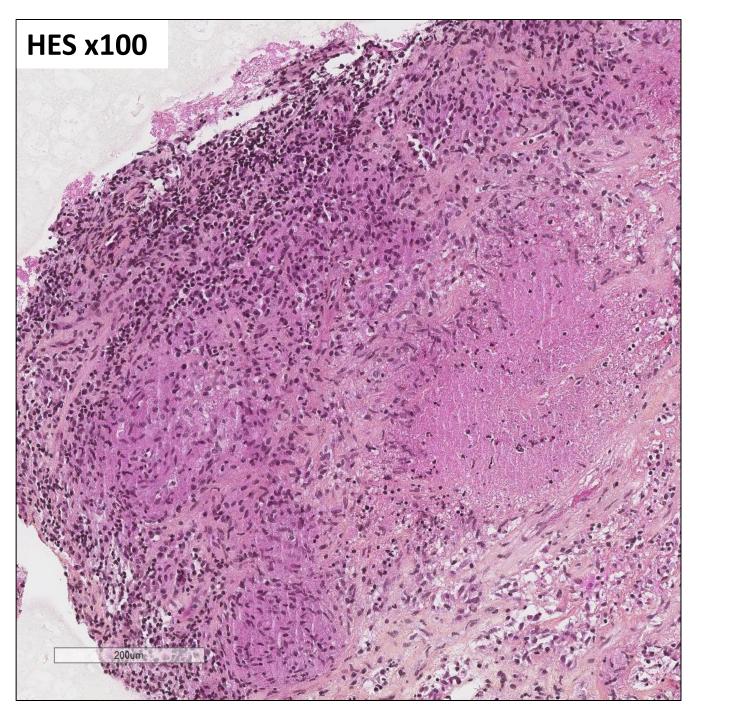


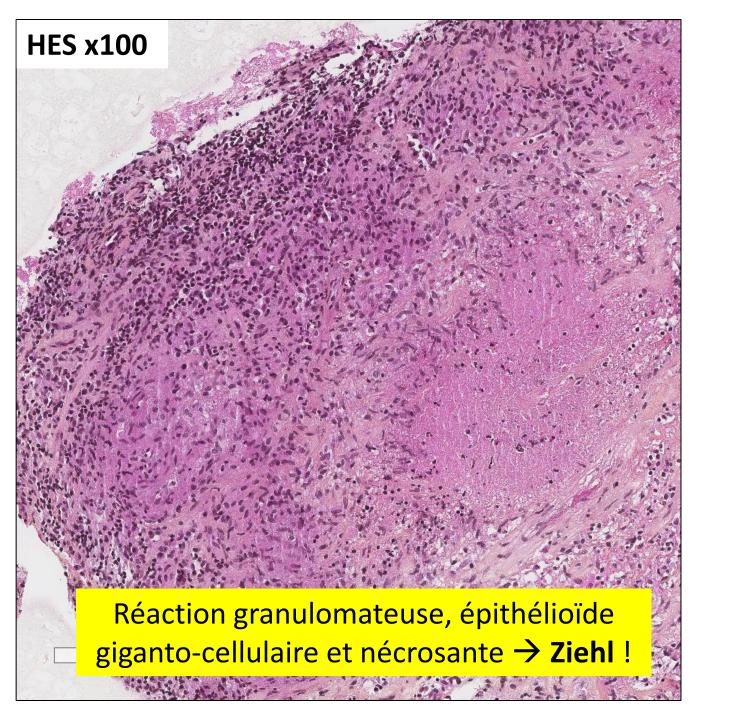


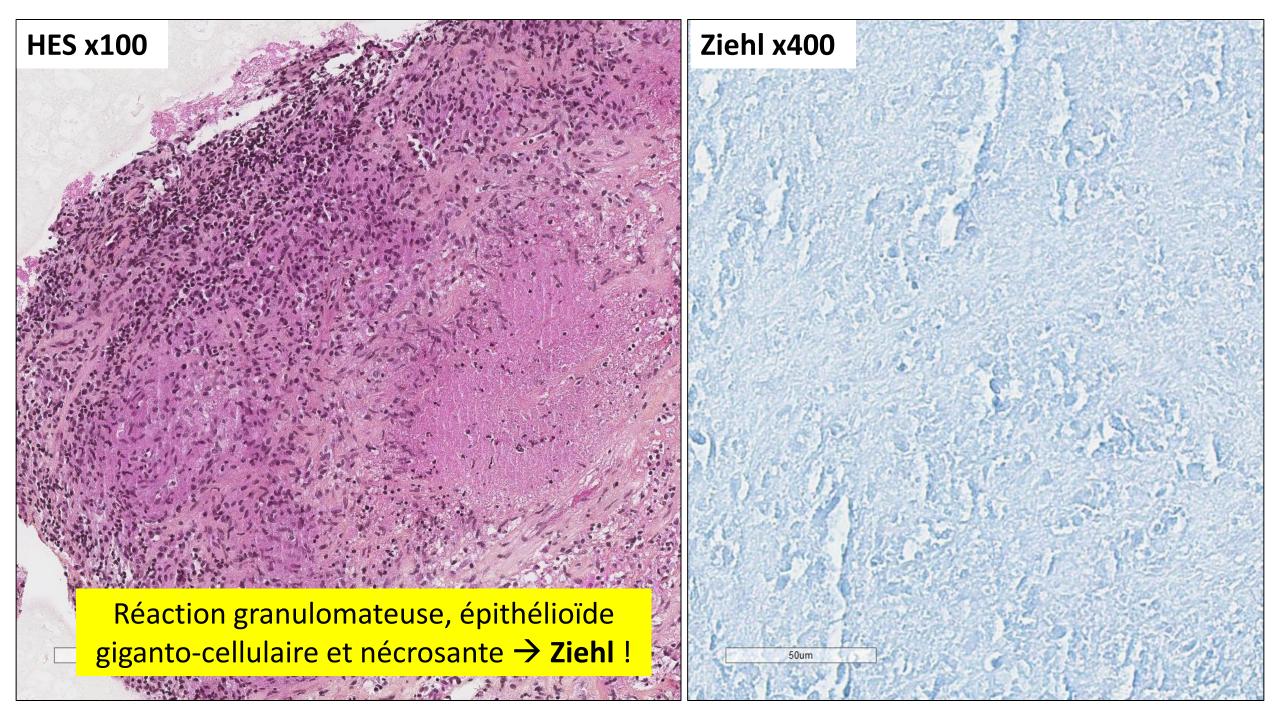
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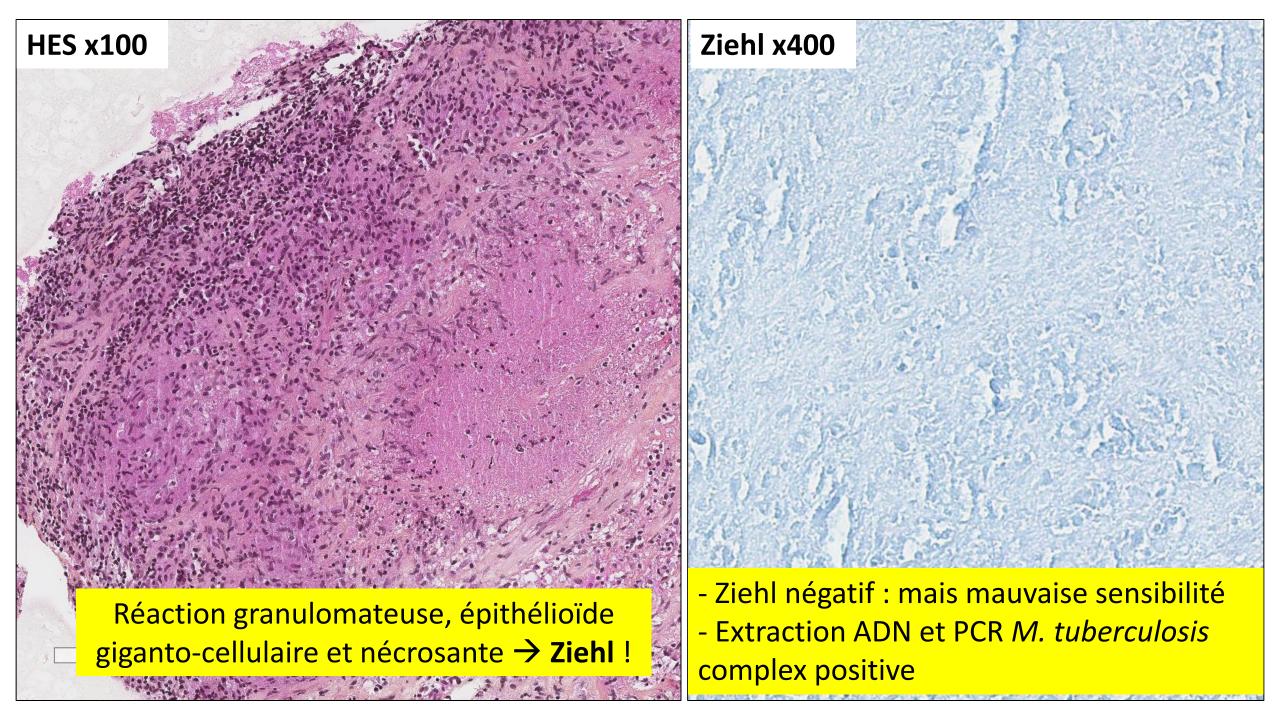
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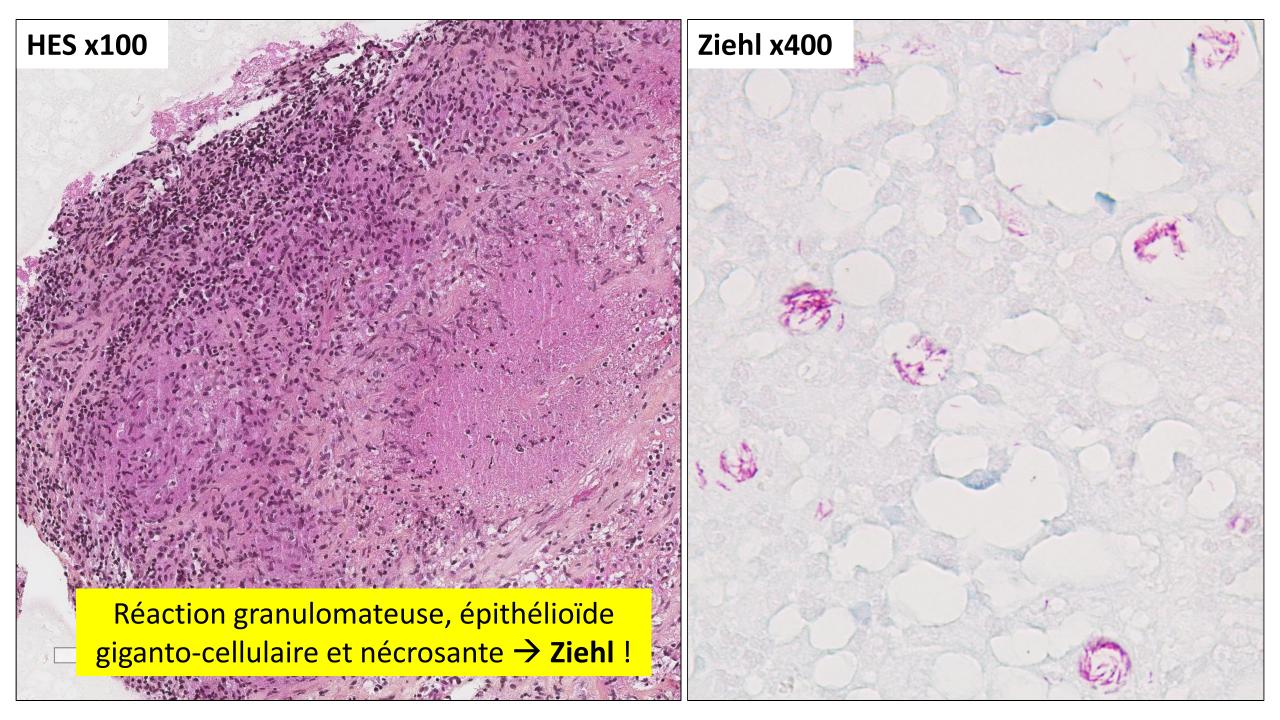












Conclusion

- Le pathologiste seul est vite limité → collaboration ++
- Nécessité d'intégrer l'approche histopathologique avec la biologie, la clinique, la radiologie ...

