



Neuro-infection de l'immunodéprimé

Dr Marion Le Maréchal

Journée du Groupe infection et immunodépression

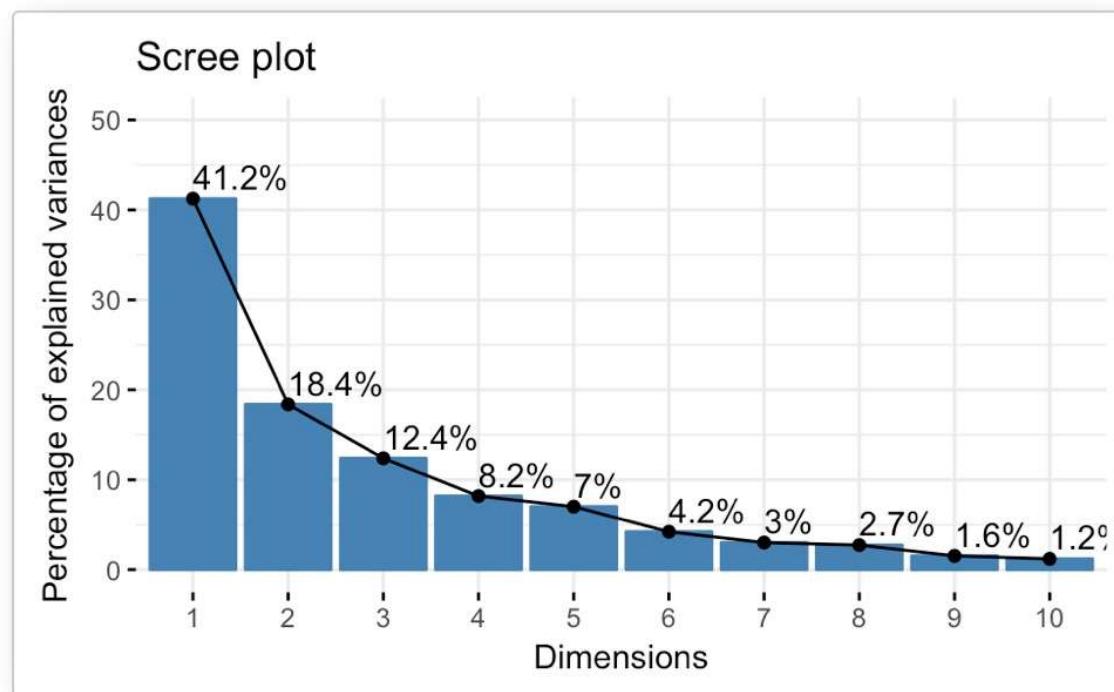
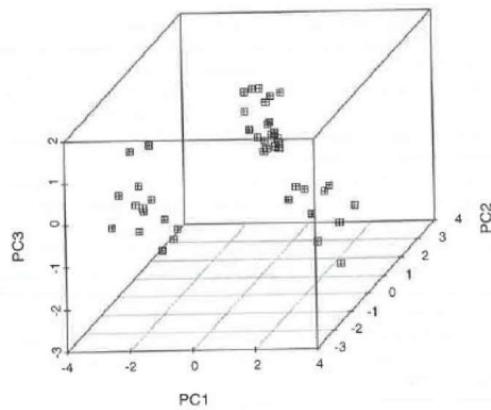
13 janvier 2023

1. Mon parcours



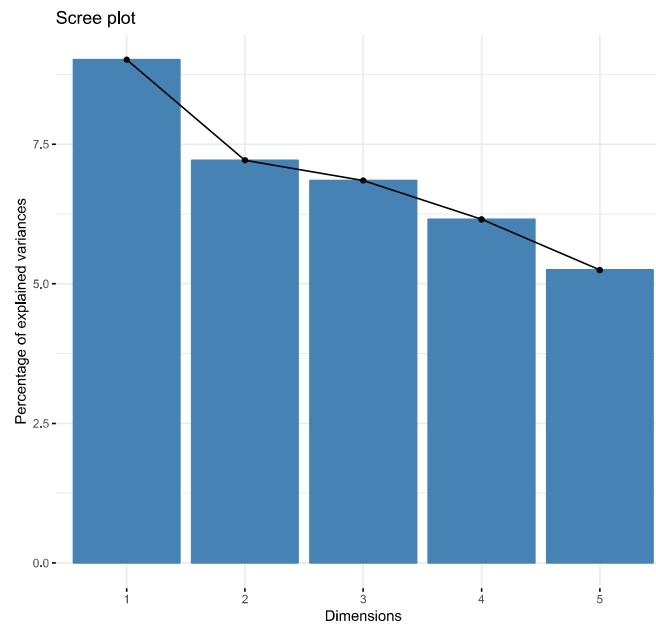
A Prospective Cohort Study to Identify Clinical, Biological, and Imaging Features That Predict the Etiology of Acute Encephalitis

Marion Le Maréchal,^{1,2} Alexandra Mailles,^{2,3} Arnaud Seigneurin,^{4,5} Pierre Tattevin,^{2,6,7} Jean-Paul Stahl,^{1,2} and Olivier Épaulard^{1,2,7}; on behalf of the Scientific Committee and Investigators Group



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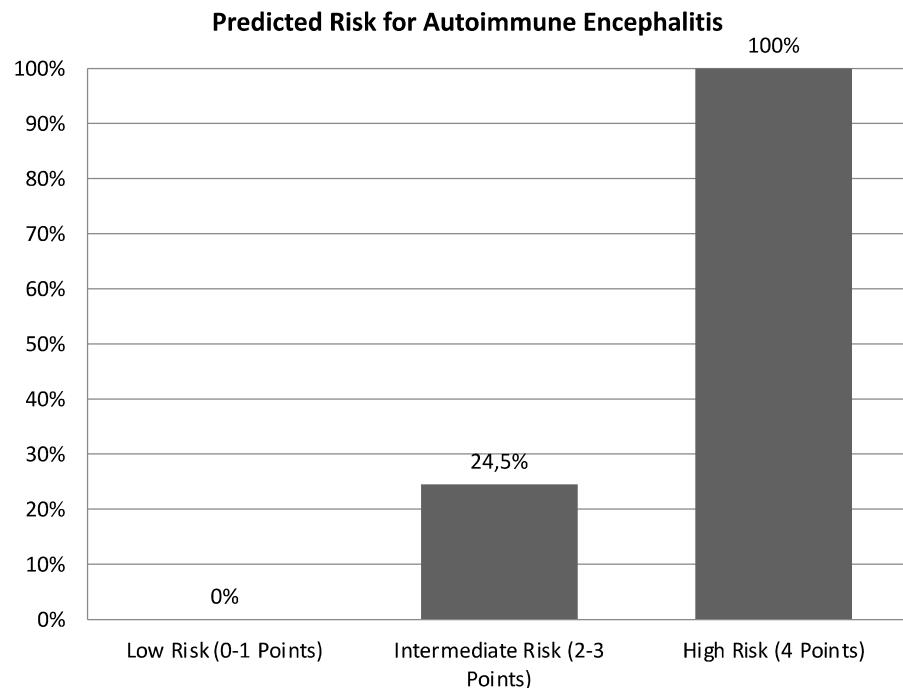
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Variable	Herpes Simplex Virus or Varicella-Zoster Virus		Other Cases		Adjusted OR		
	N = 127	%	N = 222	%	OR	95% CI	PValue
CSF lymphocytes (%)							
Mean (SD)	79.8 (25.0)	-	65.2 (34.1)	-	-	-	<.001
Median (IQR)	90.0 (72.0–96.0)	-	80.0 (38.5–94.5)	-			
Brain lesion type							
Hemorrhage	18	14.2	5	2.3	11.85	(2.69–52.29)	.001
Inflammation	42	33.1	40	18.0	1.84	(.89–3.80)	.098
Brain lesion localization							
No mention of brain lesion	54	42.5	175	78.8	1.36	(.53–3.49)	.525
Diffuse	5	3.9	4	1.8	1.32	(.20–8.88)	.773
Infratentorial	1	0.8	6	2.7	0.12	(.01–2.31)	.162
Supratentorial with no temporal lobe signal	13	10.2	25	11.3		Reference	
Temporal lobe signal	54	42.5	11	5.0	18.62	(5.85–59.26)	<.001

Development and Validation of a Risk Score to Differentiate Viral and Autoimmune Encephalitis in Adults

Alejandro Granillo,^{1,n,*} Marion Le Maréchal,^{2,*} Luisa Diaz-Arias,² John Probasco,² Arun Venkatesan,^{2,n} and Rodrigo Hasbun^{1,3,*}

- Début subaigué
- Charlson < 2
- Signes mémoire/psy
- Peu d'inflammation à la PL



2. Les grandes questions à adresser

Le diagnostic

Table 1. Diagnostic Criteria for Encephalitis and Encephalopathy of Presumed Infectious or Autoimmune Etiology

Major Criterion (required):

Patients presenting to medical attention with altered mental status (defined as decreased or altered level of consciousness, lethargy or personality change) lasting ≥ 24 h with no alternative cause identified.

Minor Criteria (2 required for possible encephalitis; ≥ 3 required for probable or confirmed^a encephalitis):

Documented fever $\geq 38^\circ \text{C}$ (100.4°F) within the 72 h before or after presentation^b

Generalized or partial seizures not fully attributable to a preexisting seizure disorder^c

New onset of focal neurologic findings

CSF WBC count $\geq 5/\text{cubic mm}^d$

Abnormality of brain parenchyma on neuroimaging suggestive of encephalitis that is either new from prior studies or appears acute in onset^e

Abnormality on electroencephalography that is consistent with encephalitis and not attributable to another cause.^f

Abbreviations: CNS, central nervous system; CSF, cerebral spinal fluid; EEG, electroencephalogram; RBC, red blood cell; WBC, white blood cell.

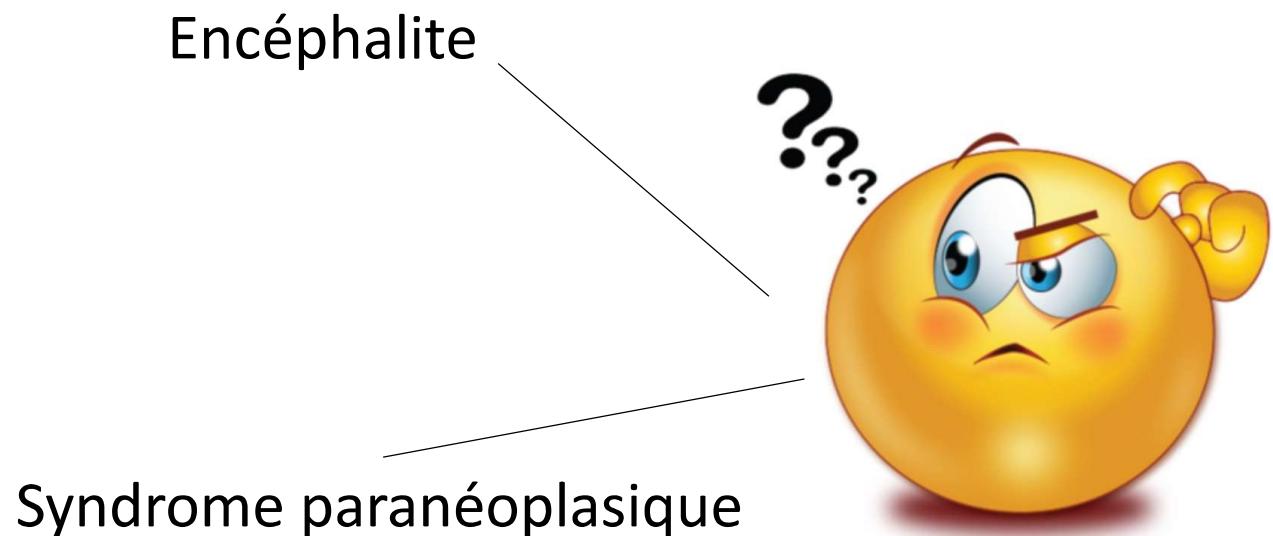
^a Confirmed encephalitis requires one of the following: (1) Pathologic confirmation of brain inflammation consistent with encephalitis; (2) Defined pathologic, microbiologic, or serologic evidence of acute infection with a microorganism strongly associated with encephalitis from an appropriate clinical specimen (for examples, see references [1, 2]); or (3) Laboratory evidence of an autoimmune condition strongly associated with encephalitis.

Le diagnostic

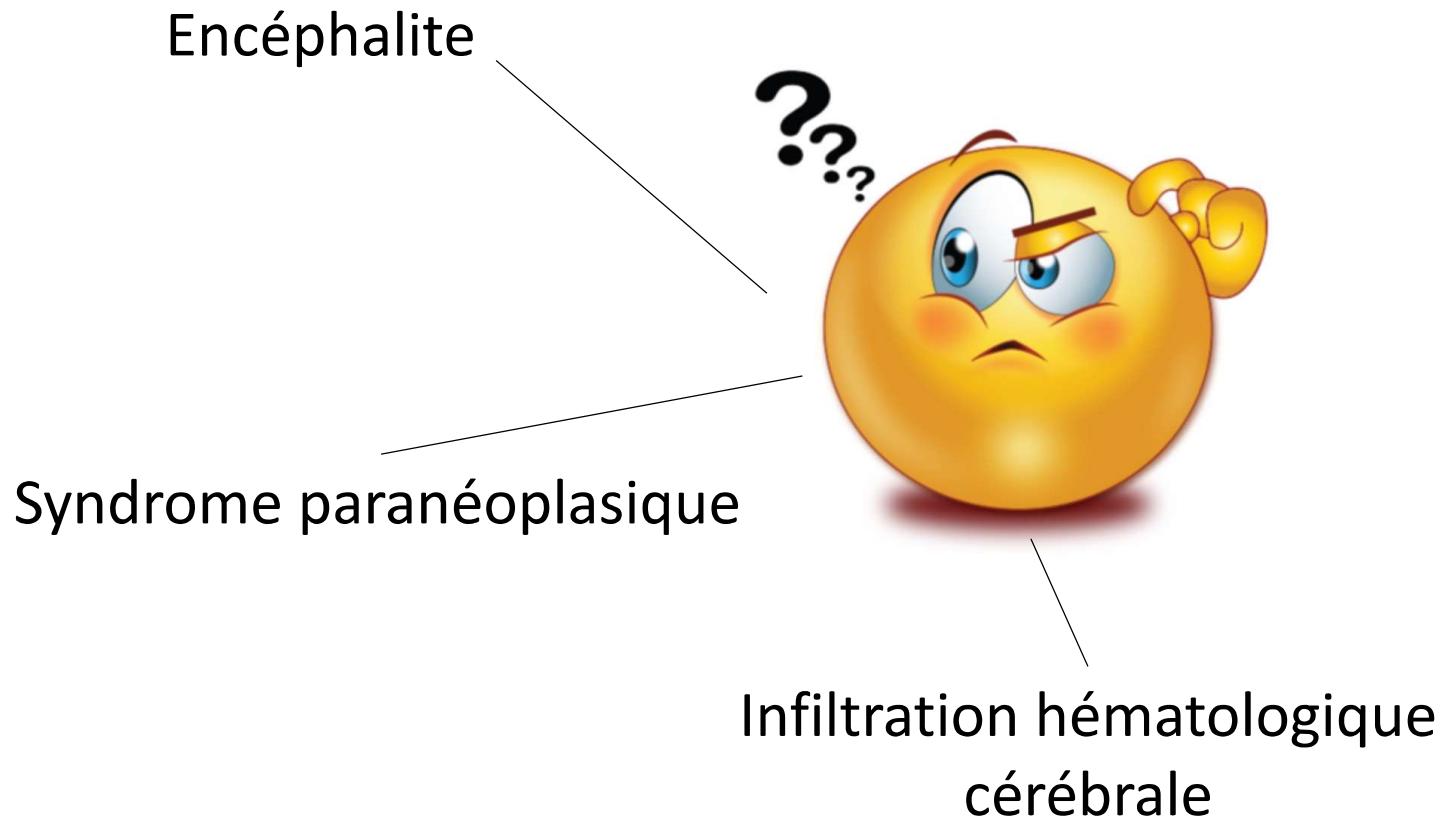
Encéphalite



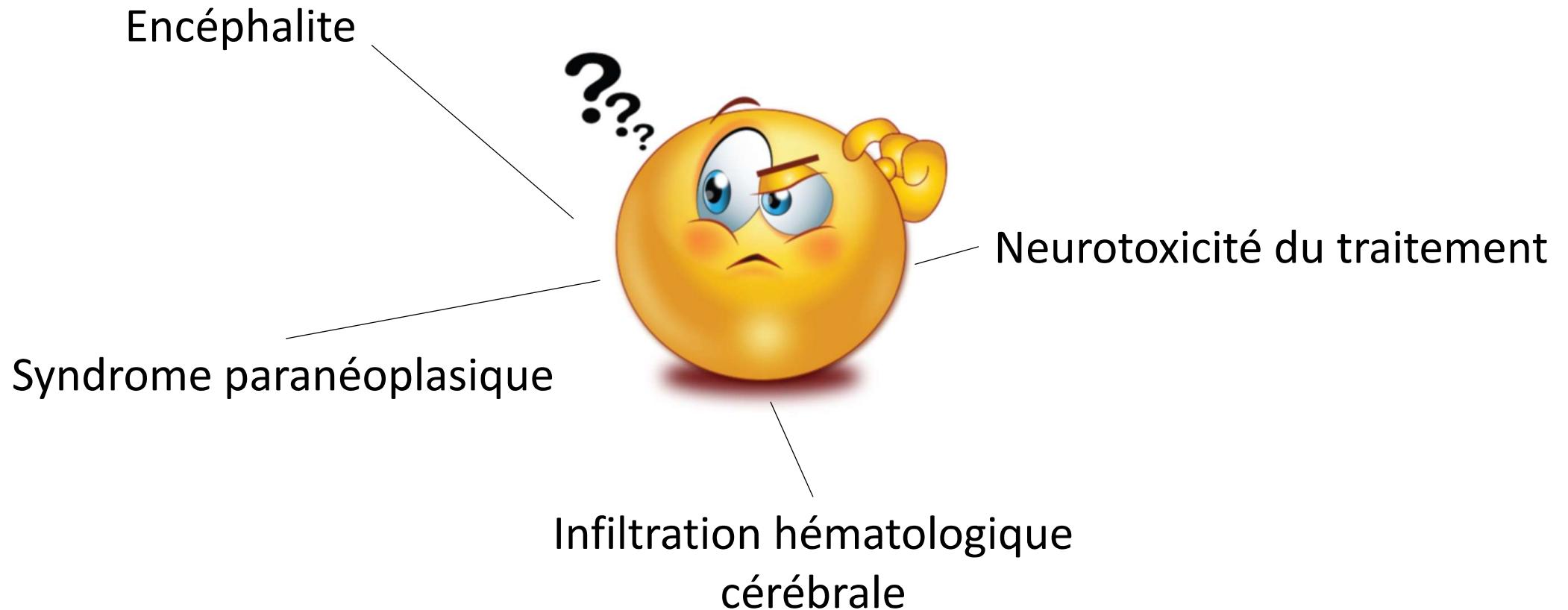
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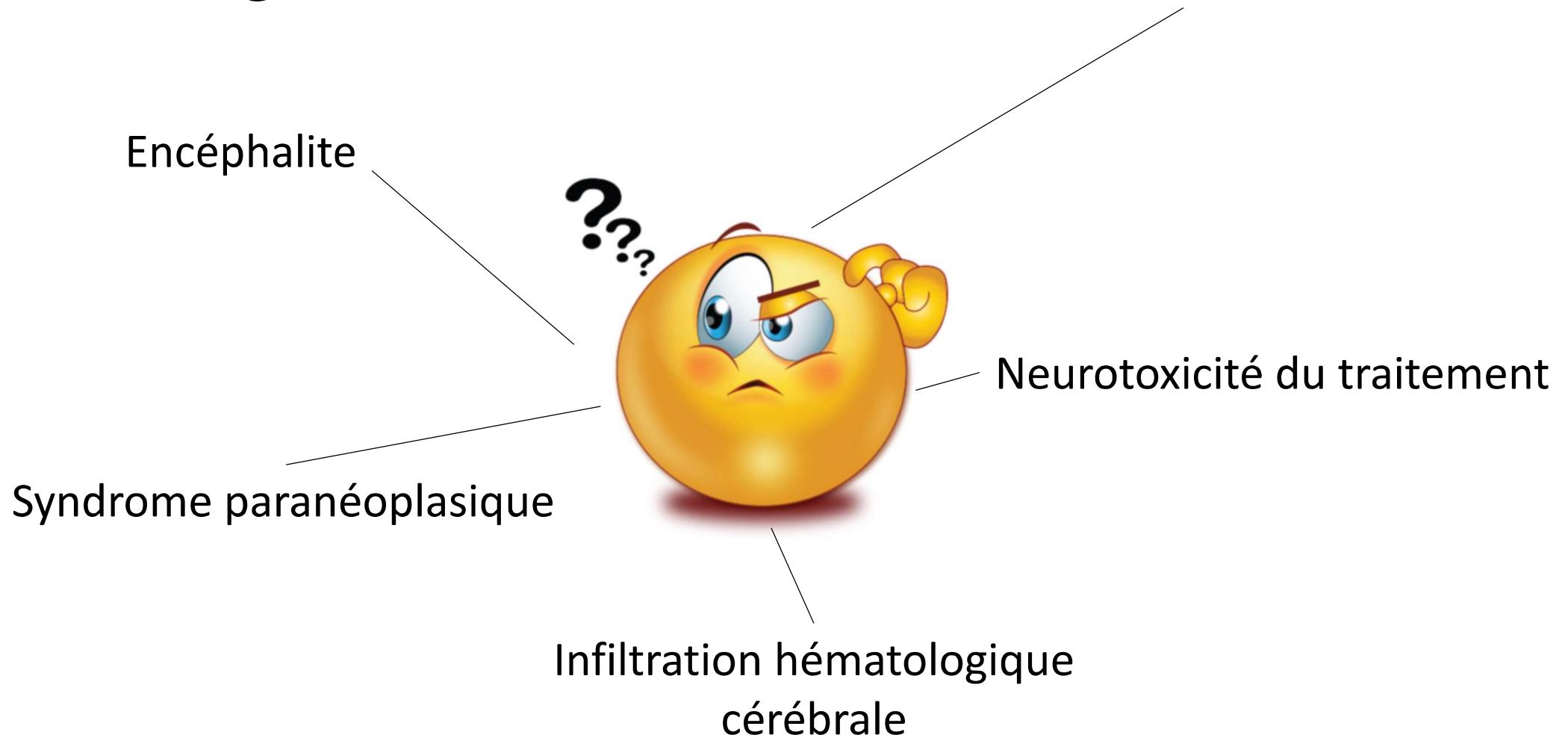
Le diagnostic



Le diagnostic



Le diagnostic



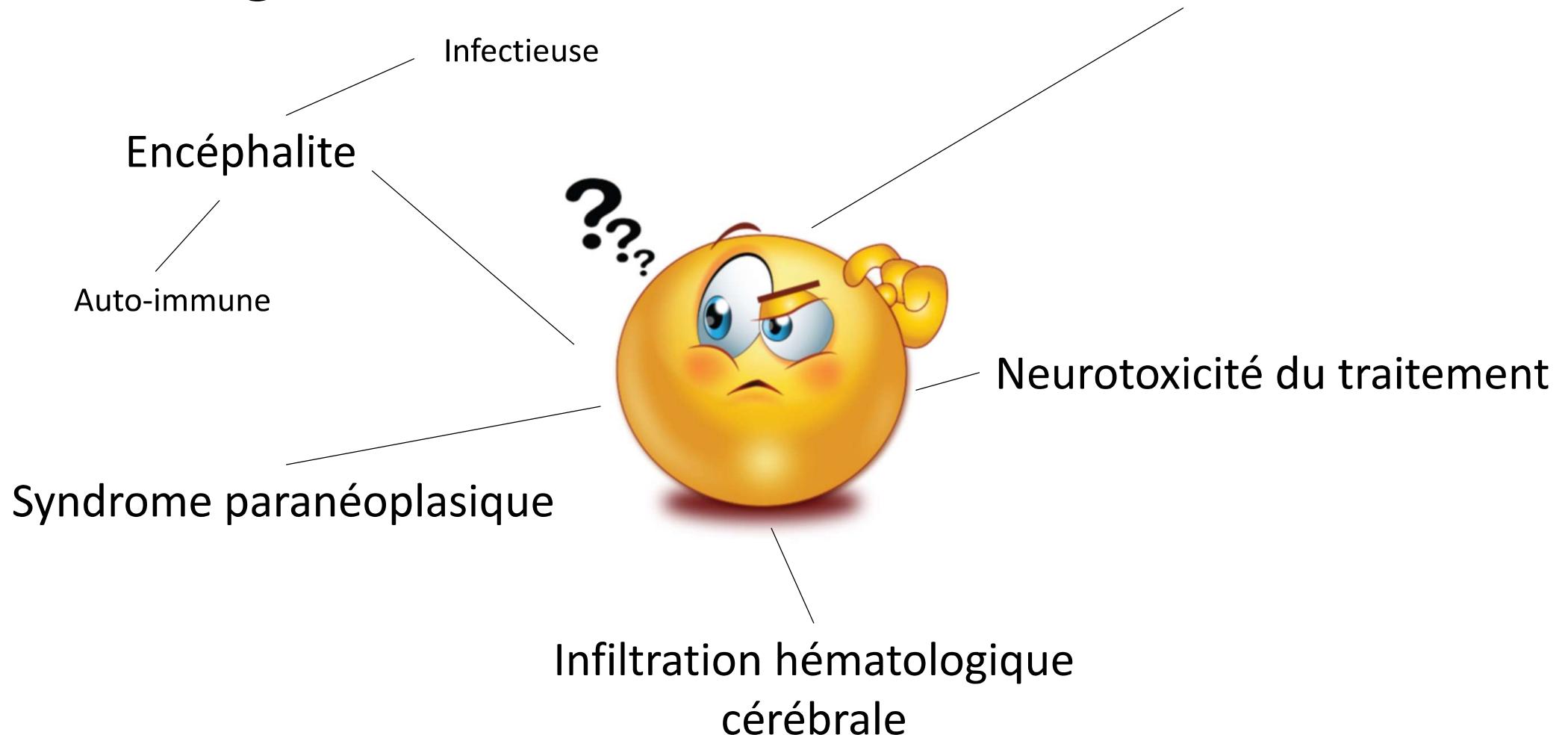
Le diagnostic

Table 3

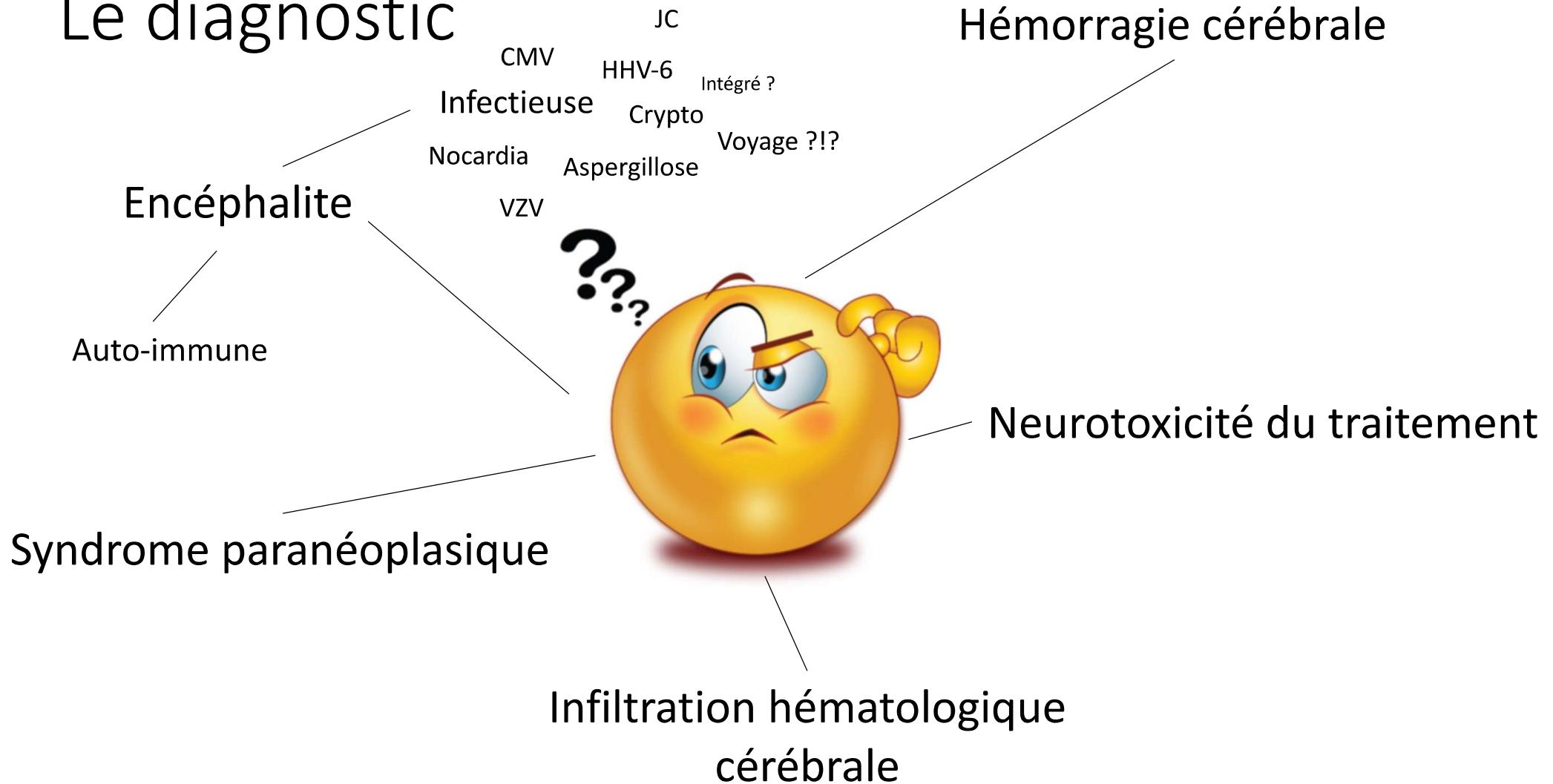
Causative agents of encephalitis, strength of diagnosis, modes of transmission, and vaccine availability, ENCEIF cohort, France 2016–19 ($n = 494$).

Causes of encephalitis	<i>n</i>	% of cases with an identified cause	Total %	Confirmed	Probable	Possible	Vectorial transmission	Zoonotic transmission	Vaccine preventable, i.e. a vaccine exists, with or without recommendations
Herpes simplex virus	132	40.7	26.7	131	0	0			X
Varicella-zoster virus	65	20.1	13.2	64	0	1			X
Tick-borne encephalitis virus (TBEV)	26	8.0	5.3	12	12	2	Ticks	X	X
<i>Listeria monocytogenes</i>	23	7.1	4.7	21	2	0		X	
<i>Mycobacterium tuberculosis</i>	11	3.4	2.2	8	2	1		Rarely	X
<i>Unknown cause</i>	170		34.4	-	-	-			--

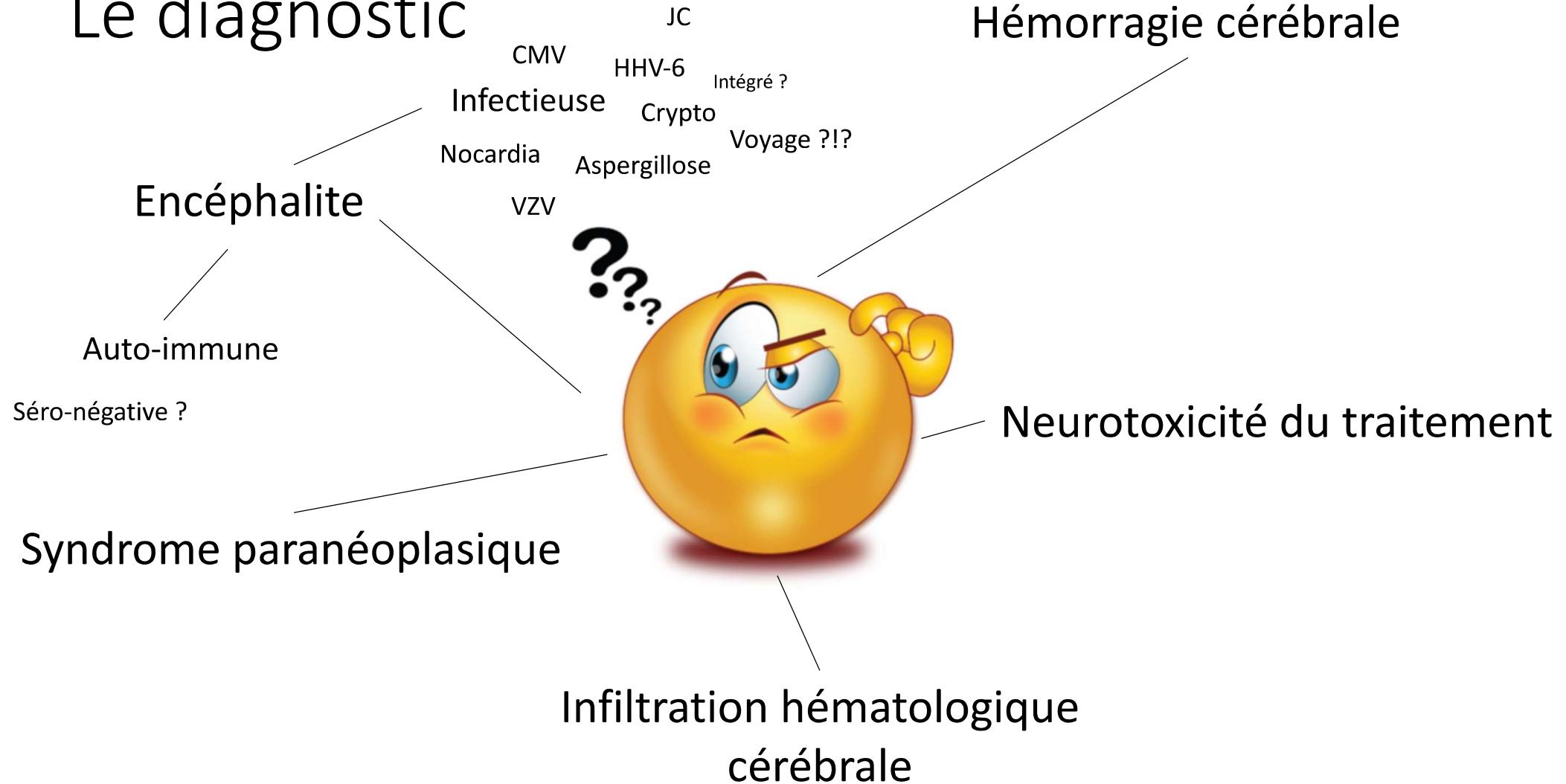
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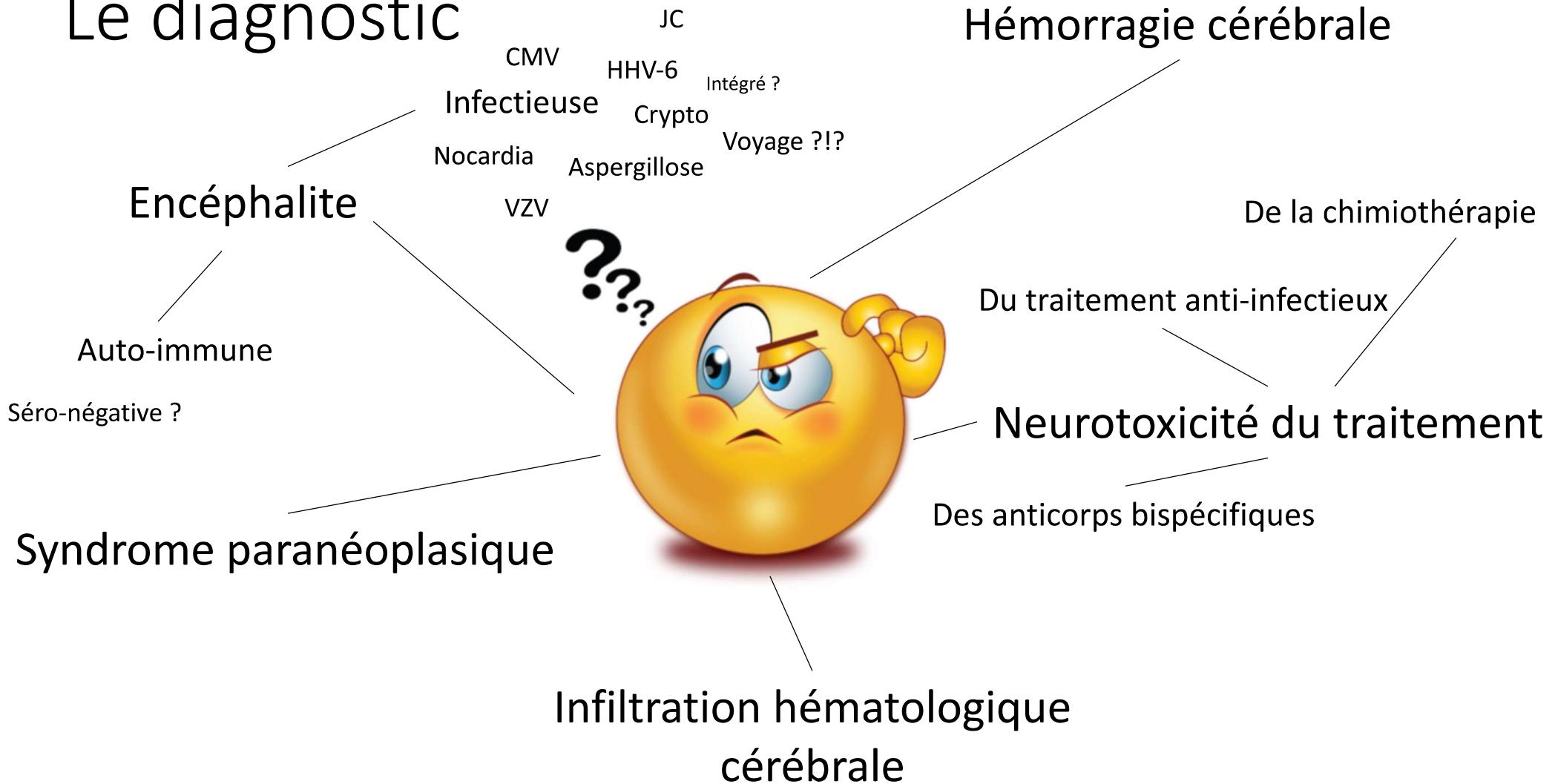
Le diagnostic



Le diagnostic



Le diagnostic



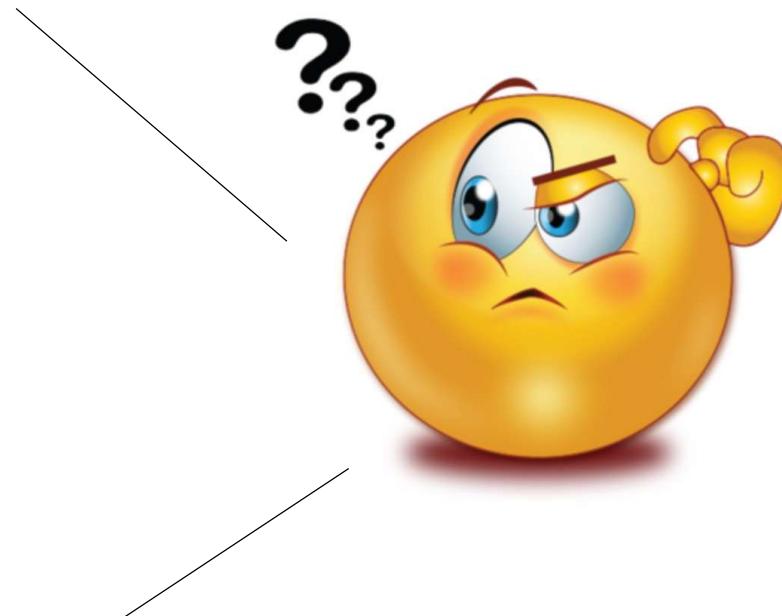
Le pronostic

Quid du traitement spécifique ?



Le pronostic

Quid du traitement spécifique ?

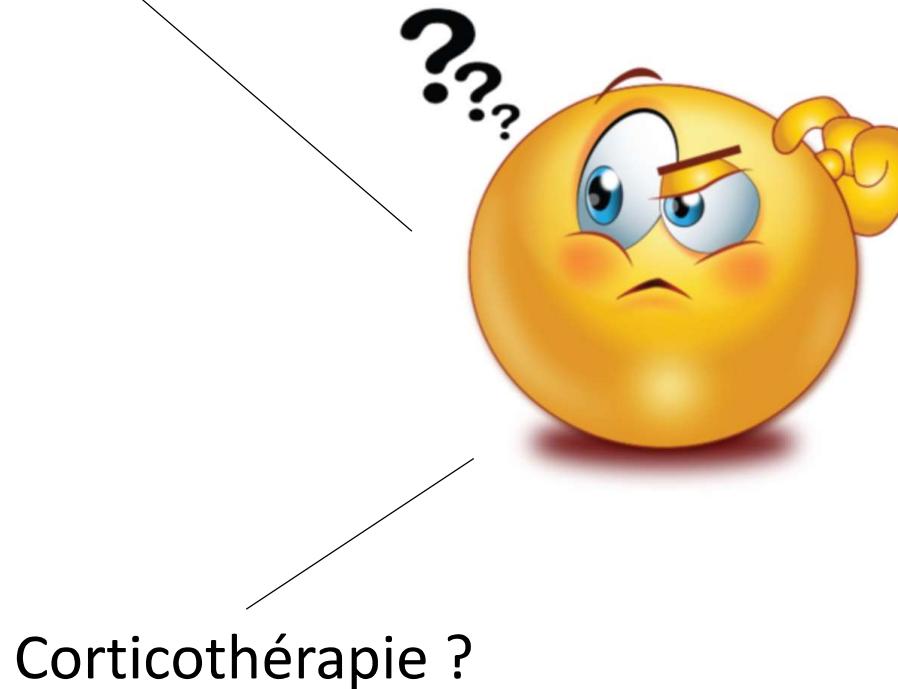


Corticothérapie ?

Le pronostic

Quid du traitement spécifique ?

Quelle récupération ?



Corticothérapie ?

Le pronostic

Quid du traitement spécifique ?

Quelle récupération ?

Corticothérapie ?

Quel suivi ?



3. Les moyens d'aborder les problématiques



Grenoble
Institut Neurosciences

FULL-LENGTH ORIGINAL RESEARCH

Epilepsia®

In vivo γ -aminobutyric acid increase as a biomarker of the epileptogenic zone: An unbiased metabolomics approach

Sophie Hamelin¹ | Vasile Stupar^{1,2} | Lucile Mazière¹ | Jia Guo³ | Wafae Labrijji¹ | Chen Liu⁴ | Ludwine Bretagnolle¹ | Sandrine Parrot⁵ | Emmanuel L. Barbier^{1,2} | Antoine Depaulis¹ | Florence Fauvette^{1,2}

The Journal of Clinical Investigation

CLINICAL MEDICINE

A metabolic biomarker predicts Parkinson's disease at the early stages in patients and animal models

David Mallet,¹ Thibault Dufourd,¹ Mélina Decourt,² Carole Carcenac,¹ Paola Bossù,³ Laure Verlin,⁴ Pierre-Olivier Fernagut,² Marianne Benoit-Marand,² Gianfranco Spalletta,⁵ Emmanuel L. Barbier,^{1,4} Sébastien Carnicella,¹ Véronique Sgambato,⁶ Florence Fauvette,^{1,4} and Sabrina Boulet¹

Original article/Computer developments

Artificial intelligence to predict clinical disability in patients with multiple sclerosis using FLAIR MRI

P. Roca^{a,*}, A. Attye^{b,c}, L. Colas^d, A. Tucholka^a, P. Rubini^a, S. Cackowski^e, J. Ding^d, J.-F. Budzik^d, F. Renard^{f,g}, S. Doyle^a, E.L. Barbier^e, I. Bousaid^h, R. Casey^{i,j,k,l}, S. Vukusic^{i,j,k,l}, N. Lassau^{m,n}, S. Verclytte^d, F. Cotton^{k,o,p}, On behalf of OFSEP Investigators:¹

Automated Quantification of Brain Lesion Volume From Post-trauma MR Diffusion-Weighted Images

Thomas Mistral¹, Pauline Roca², Christophe Maggia¹, Alan Tucholka², Florence Forbes³, Senan Doyle², Alexandre Krainik^{1,4}, Damien Galanaud⁵, Emmanuelle Schmitt⁶, Stéphane Kremer⁷, Adrian Kastler¹, Irène Tropriès⁴, Emmanuel L. Barbier^{1,4}, Jean-François Payen¹ and Michel Dojat^{1*}



HOSPITALISATION

- 27 lits d'hospitalisation
- 2 médecins
- 3 internes
- 3 IDE
- Recrutement depuis les urgences et la consultation

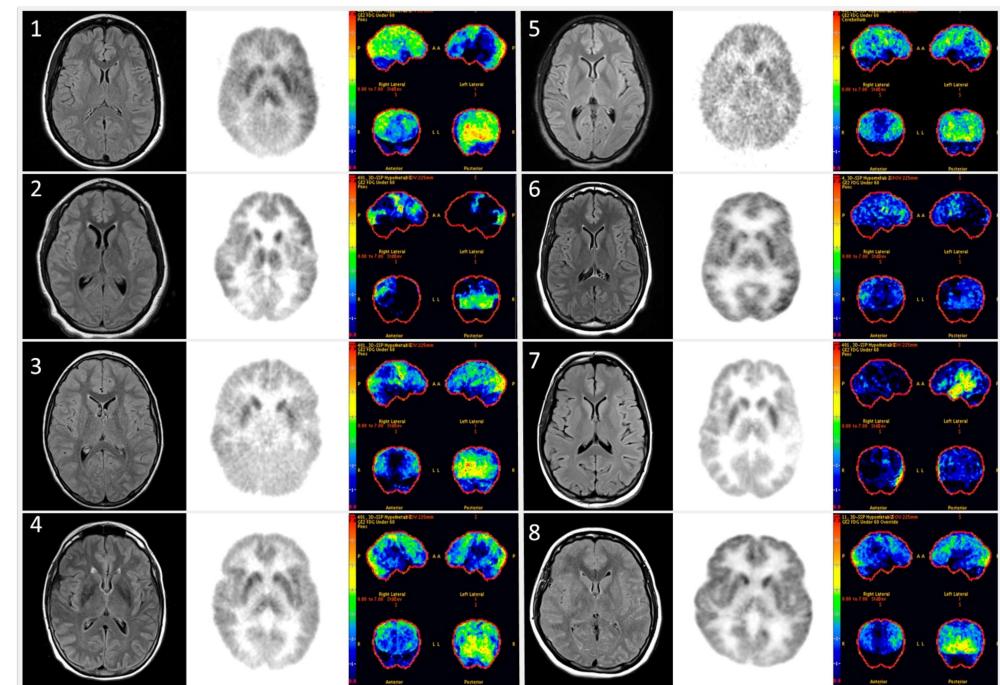
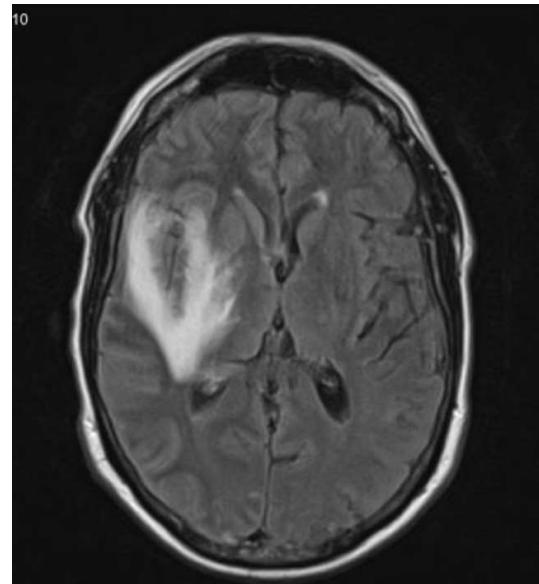
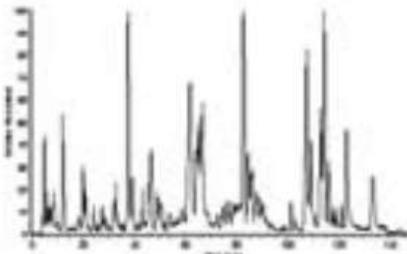
AMBULATOIRE

- Consultation d'urgence
- Consultation d'infectiologie
- Hôpital de jour

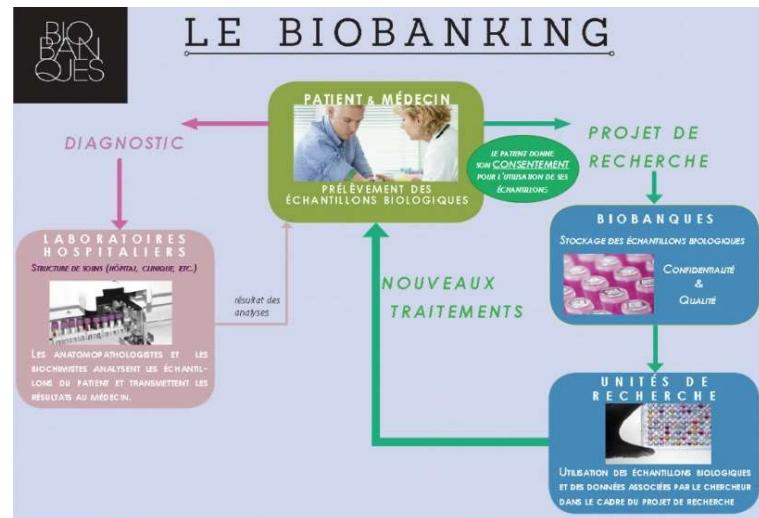
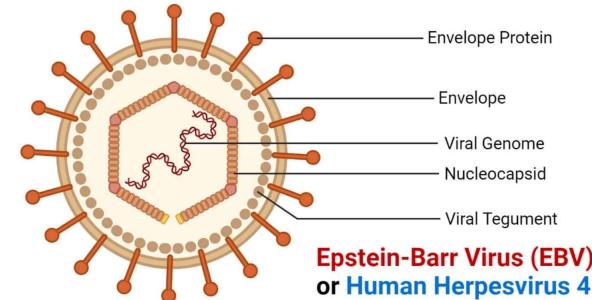
TRANSVERSAL

- Ligne d'avis téléphonique
- Passage quotidien au SAU
- Passage hebdomadaire en hématologie
- Passage hebdomadaire en neurochirurgie
- RCP encéphalite
- RCP ISN

Le diagnostic positif d'encéphalite

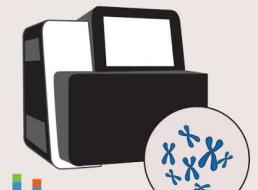


Le diagnostic étiologique d'encéphalite



NEXT GENERATION SEQUENCING

AN INTRODUCTION



Le pronostic des infections neuro-méningées



Cohorte ENCEIF

Suivi systématique

Merci de votre attention