A look on diagnostic, therapeutic and prognosis practices for DLBCL from 2012 to 2016 in Côte d'Or

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Introduction

Diffuse large B cell lymphoma (DLBCL) is the most common non-Hodgkin lymphoma type. Since 2003, the use of Hans' algorithm allows to distinguish two molecular subgroups with different prognosis defined in the 2008 WHO classification: the "germinal centre B-cell (GCB)" and "non-germinal centre B-cell (Non-GCB)" subtypes. Our aim is to study the therapeutic management and DLBCL survival by molecular subtypes from 2012 to 2016.

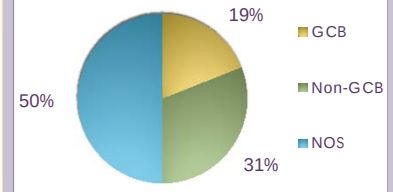
Methods

- 165 DLBCL diagnosed from 01-01-2012 to 12-31-2016 in the Côte d'or population.
  - Excluded central nervous system, intravascular and mediastinum localizations.
- Molecular grouping : GCB, Non-GCB and Not Other Specified (NOS).
  - Use of the Hans' algorithm to reassess NOS subtype.
- Net survival estimation by the Pohar-Perme's estimator.
  - Comparaison of net survival distribution by the Graffeo *et al* test.
- End point : 06-30-2018.
- Stata (V15) and R software.

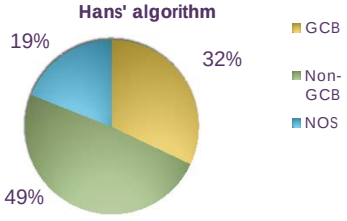
Results

- Sex ratio : 1,43
  - Similar whatever the molecular subtype
- Median age :
  - GCB : 71 y-o
  - Non-GCB : 77 y-o
  - NOS : 80 y-o

Molecular subtype distribution of DLBCL over the entire period

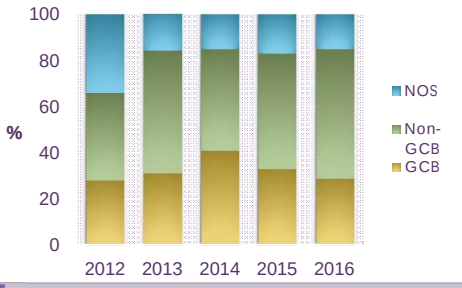


Molecular subtype distribution of DLBCL over the entire period with Hans' algorithm



61% of NOS reallocated on GCB and Non-GCB with Hans' algorithm

Evolution of molecular subtype distribution of DLBCL after correction by Hans' algorithm from 2012 to 2016



Decrease of NOS from 2012 to 2013, from 34 to 17%, and stabilize after (ns)

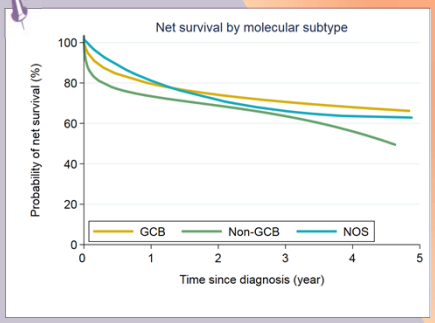
Treatments received (%)* by molecular subtype over the entire period

%	R-CHOP	R-ACVPB	Palliative care	Early death	Unknown
GCB	66	9	6	6	4
Non-GCB	65	9	6	9	1
NOS	66	9	6	0	0

*Only treatments received over 5% presented

No difference in the therapeutic management was found according to subtype. 65% received the R-CHOP protocol and 9% the R-ACVBP protocol

Net survival by molecular subtype



5-year net survival was lower for non-GCB (54% [38-67]) and similar for GCB and NOS (65% [47-82] and 66% [42-89]) (ns)

Conclusion

Diagnosis accuracy has improved over the period studied but unfortunately around 20% of cases remained under explored for various reasons. Knowing DLBCL subtype is crucial to offer personalized care with more inclusion into therapeutic trials with new strategies to improve survival of Non-GCB.