percentage, a semi-quantitative evaluation of Glasgow Microenvironment Score⁷ was performed. Also, Glasgow Prognostic Score, that is widely known as a systemic inflammatory-based marker, was determined for each patient.⁸

Results: Diabetic patients presented a significant higher glycaemia than the control patients $(190.1 \pm 13.6 \text{ mg/dL} \text{ vs} 98.2 \pm 3.6 \text{ mg/dL}, p < 0.001$, respectively). Decreased survival rates were observed in diabetic patients (611.5 vs 916.0, p = ns). Tumours exhibited increased fibrosis relatively to the adjacent mucosa in both groups and diabetic patients (N: 9.362 ± 1.337 ; T: 12.29 ± 1.407) presented higher fibrosis levels than the non-diabetic patients (N: 7.165 ± 1.017 ; T: 10.97 ± 1.076).

Conclusion: Expected results: Identifying the distinct features that characterize GC of DM2 patients compared to nondiabetic patients (namely fibrosis, angiogenesis, inflammation, and oxidative stress biomarkers) will enable to study this subset of GC patients and unravel key mechanisms behind the relationship between DM2 and GC.

Acknowledgements: Funding: This work was supported by the project Diabetes & obesity at the crossroads between Oncological and Cardiovascular diseases – a system analysis NETwork towards precision medicine (DOCnet) – A multi-omics approach to decipher diabetes-related molecular targets in cancer: a step towards precision medicine. NORTE2020 - "Programa Operacional Regional do Norte" (NORTE-01-0145-FEDER-000003) (Jan 2016-Dez2018).

References

- Ogurtsova K, et al. IDF Diabetes Atlas: Global estimates for the prevalence of diabetes for 2015 and 2040. Diabetes Res Clin Pract. 2017;128:40–50.
- Vigneri R. Diabetes: diabetes therapy and cancer risk. Nat Rev Endocrinol. 2009;5:651–2.
- 3. Sekikawa A, et al. Diabetes mellitus increases the risk of early gastric cancer development. Eur J Cancer. 2014;50:2065–71.
- Ikeda F, Kiyohara Y. Helicobacter pylori infection and Hyperglycemia/Diabetes are associated with an increased risk of Gastric Cancer. Gan To Kagaku Ryoho. 2015;42:529–33.
- Shen Z, et al. Glycemic changes after gastrectomy in non-morbidly obese patients with gastric cancer and diabetes. Hepatogastroenterology. 2015;62:245–50.
- Ferlay JSI, Ervik M, Dikshit R, Eser S, Mathers C, Rebelo M, et al. Cancer incidence and mortality worldwide: IARC CancerBase No. 11. GLOBOCAN 2012 v1.0; 2013. Available from: http://globocan.iarc.fr [cited 24.01.17].
- Zhou ZH, et al. The prognostic value and pathobiological significance of Glasgow microenvironment score in gastric cancer. J Cancer Res Clin Oncol. 2017;143:883–94.
- Zhang CX, et al. Association between pretreatment Glasgow prognostic score and gastric cancer survival and clinicopathological features: a meta-analysis. Onco Targets Ther. 2016;9:3883–91.

http://dx.doi.org/10.1016/j.pbj.2017.07.120

PS229

Circulating EVs for AML minimal residual disease biomarkers detection

P.C. Nunes^{1,*}, H.R. Caires², M.A. Sobrinho-Simões³, M.H. Vasconcelos⁴

¹ Cancer Drug Resistance Group, IPATIMUP – Institute of Molecular Pathology and Immunology of the University of Porto, Portugal; i3S – Instituto de Investigação e Inovação em Saúde, University of Porto, Portugal; ICBAS-UP – Institute of Biomedical Sciences Abel Salazar of the University of Porto, Portugal

² Cancer Drug Resistance Group, IPATIMUP – Institute of Molecular Pathology and Immunology of the University of Porto, Portugal; i3S – Instituto de Investigação e Inovação em Saúde, University of Porto, Portugal ³ Cancer Drug Resistance Group, IPATIMUP – Institute of Molecular Pathology and Immunology of the University of Porto, Portugal; i3S – Instituto de Investigação e Inovação em Saúde, University of Porto, Portugal; FMUP – Faculty of Medicine of the University of Porto, Portugal; HSJ – Hospital de São João, Porto, Portugal
⁴ Cancer Drug Resistance Group, IPATIMUP – Institute of Molecular Pathology and Immunology of the University of Porto, Portugal; i3S – Instituto de Investigação e Inovação em Saúde, University of Porto, Portugal; FFUP – Faculty of Pharmacy of the University of Porto, Portugal
E-mail address: pnunes@ipatimup.pt

(P.C. Nunes).

Aim: We propose to evaluate the feasibility of a peripheral blood EV-based liquid biopsy method for AML disease monitoring in real time with molecular precision.

Introduction: Acute myeloid leukemia (AML) is a hematopoietic stem cell disorder with high mortality rate mainly due to the high frequency of post-treatment relapse. Minimal residual disease (MRD) determination in AML patients receiving treatment is useful to assess chemotherapy response and predict relapse. One approach to upgrade the current invasive MRD monitoring (traditionally based on bone marrow aspirates/biopsies) is to use methods that identify cancer-associated biomarkers in patients' blood. Recently, extracellular vesicles (EVs) have been increasingly recognized as a potential source of biomarkers, since the levels of EVs are markedly increased in cancer patients' blood and those EVs potentially carry molecular signatures associated with specific cancer phenotypes.

Methods: The profile of EVs isolated from AML patients' blood plasma collected from paired AML diagnostic and complete remission samples is being compared and correlated with clinical data. A size-exclusion chromatography (SEC) method was optimized to isolate the plasmatic EVs. The EVs profile is then characterized according to their size, plasmatic concentration, morphology and protein content.

Results: EVs with decreasing size were successfully isolated between SEC fractions 3 to 6, with a size ranging from 300 nm to 30 nm, respectively. Fraction 7 presented the smaller EVs, although mixed with some plasmatic protein contaminants. The expression of EVs markers such as CD63, HSP70 or Syntenin-1 was confirmed and allow to distinguish EV subpopulations between fractions 3 to 7. The expression of leukemia-specific markers is currently being studied in the EVs isolated from the paired AML blood samples.

Conclusion: The presented EV-based liquid biopsy proposed method for AML monitoring could unravel biomarkers for diagnostic and prognostic purposes in AML patients.

http://dx.doi.org/10.1016/j.pbj.2017.07.121

PS232

The association of Generalized Epilepsy with Febrile Seizures plus (GEFS+) with FEB1 gene: A new insight to the etiology of GEFS+



Ali Rafati^{1,*}, Shahram Teimourian²

¹ Student Research Committee, School of Medicine, Iran University of Medical Sciences, Tehran, Iran ² Department of Medical Genetics, Iran University of Medical Sciences Tehran Iran E-mail address: rafatiali1995@gmail.com (A. Rafati).

