91P Liquid biopsy, a tool to detect genetic alterations with therapeutic impact in International patients: Prospective data on 47 patients from Gustave Roussy

Tarek ASSI, Toni IBRAHIM, Claude CHAHINE, Naima LEZGHED, Nohad MASRI, Olivier CARON, Etienne ROULEAU, Axel LE CESNE

Gustave Roussy, Division of International Patients Care, Villejuif, France.

BACKGROUND

- Liquid biopsy (LB), or cell-free DNA analysis (cfDNA), is a novel non-invasive approach to detect molecular alterations (MAs) in cancer patients allowing personalised treatment.
- It has been validated in clinical trials, however, the real world evidence is still in its initial steps.

OBJECTIVE

- The aim of this study is to evaluate the outcomes of LB in international patients with the intention of offering novel therapeutic options.

PATIENTS AND METHODS

- We included in this prospective real world study pts with advanced solid cancer admitted in the international department at Gustave Roussy, Villejuif, France, starting the 1st of December 2021.
- cfDNA was extracted from peripheral blood using streck tubes which were sent to FoundationOne®Liquid CDx for sequencing.

RESULTS

- 47 pts => median age of 60 yrs.
- 46.8% (22 pts) were males.
- Gastro-intestinal cancers were the most common in 20 pts (42.5%).
- 17 were treatment-naïve (36.2%).
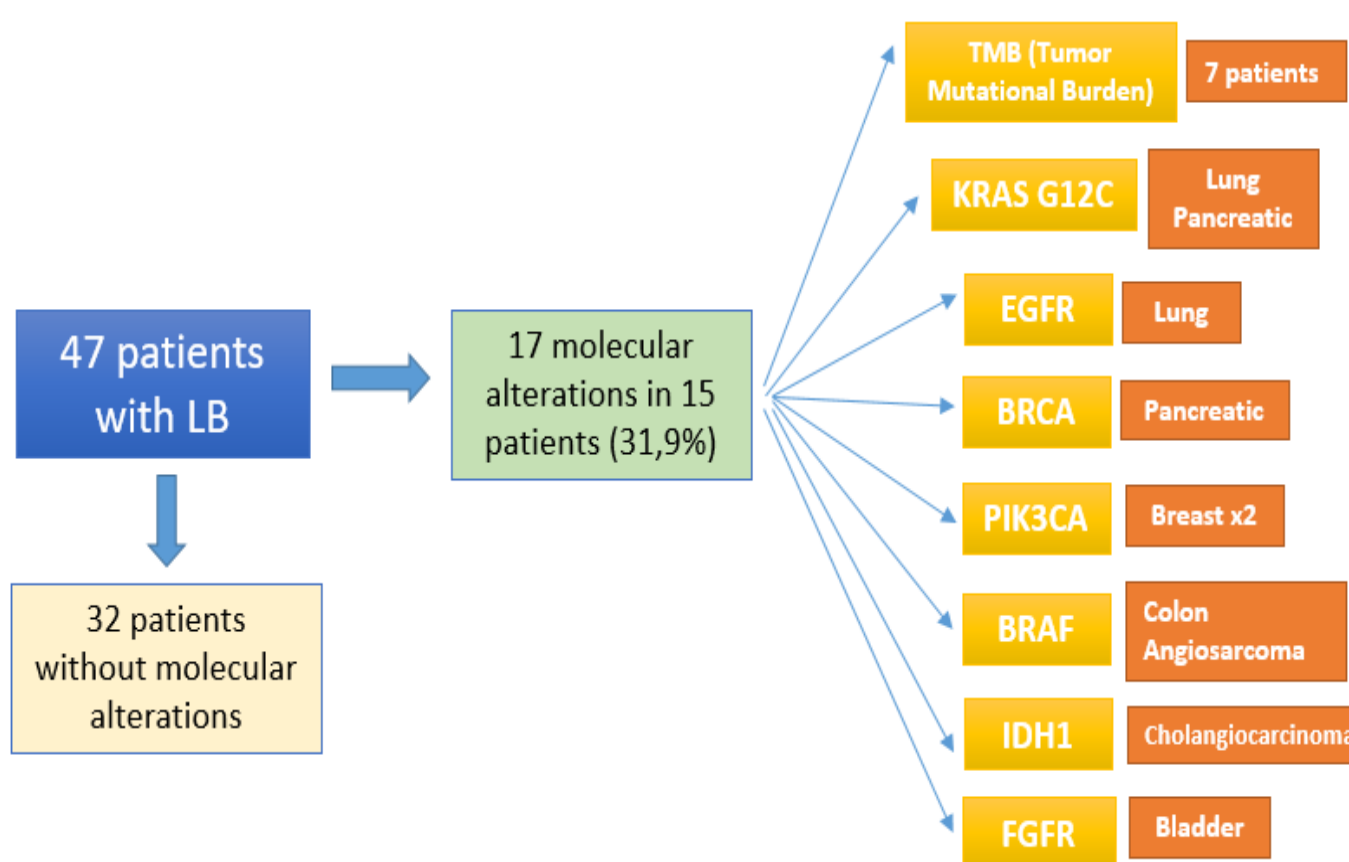- On day of LB, 43 were already metastatic (91.5%).

- Median number of MA detected was 5. Tumor mutational burden (TMB) ≥ 10 was found in seven patients (14.9%) pertaining an option for immunotherapy.
- Beyond TMB, 10 MAs were detected in 9 pts (19.1% of pts). Detailed findings are in the attached figure.

- 15 pts with 17 MAs were offered an innovative approach based on LB outcomes (31.9%).
- An additional 22 MAs were detected in 16 pts with available phase 1 or 2 clinical trials.

Demographic and Clinical Characteristics	
Variable	**Value (N=47)**
Age	60 (Median)
Sex	
Male	25 (53%)
Female	22 (47%)
Primary Site	
Digestive	20 (41%)
Lung	9 (19%)
Sarcomas	6 (13%)
Breast	5 (11%)
Other	7 (16%)
Previous lines	
Chemotherapy	34 (72%)
Targeted Therapy	7 (15%)
Hormonal Therapy	5 (11%)
Immunotherapy	16 (34%)
Initial Stage at Diagnosis	
Localized	32 (68%)
Locally advanced	13 (28%)
Metastatic	2 (4%)
ECOG Score	
0-1	24 (50%)
≥ 2	24 (50%)
Number of previous lines	1 (Median)

Oncoprint Genes altered in ≥ 5%
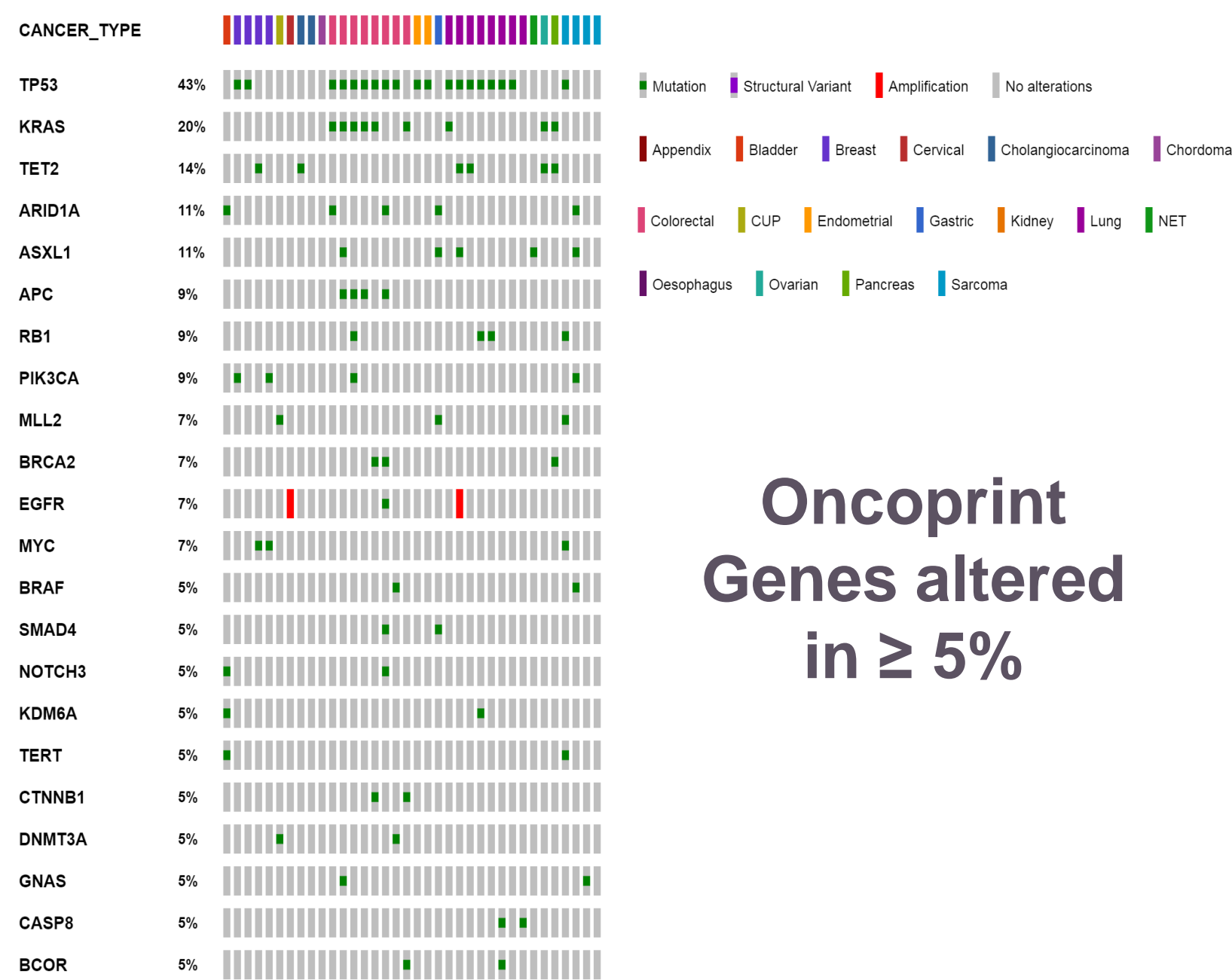
Outcomes of liquid biopsy in 47 international oncology patients

CONCLUSION

LB proved to be an easy and attractive tool to pinpoint MAs with a significant diagnostic and therapeutic impact. It is an alternative mean to carefully spot MAs in international patients with 31.9% of pts with an additional therapeutic option.

Conflict of Interest

None to declare.

Corresponding author: tarek.assi@gustaveroussy.fr

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