soho2023
ELEVENTH ANNUAL MEETING

FOURIER TRANSFORM INFRARED SPECTROSCOPIC STUDIES FOR PATIENTS WITH NON- HODGKIN LYMPHOMA

Authors: Maged Saafan1, Farid Badria 2 , Noha Eissa1 , Mohamed Mabed1
1 Hematology Unit, Oncology Center, Mansoura University, Egypt
2 pharmacognosy, Faculty of pharmacy, Mansoura University, Egypt

INTRODUCTION

Time consuming and cost ineffective screening, diagnostic and follow up methods of NHL (DLBCL) drive us to evaluate FT-IR as a method to overcome those pitfalls.

AIM

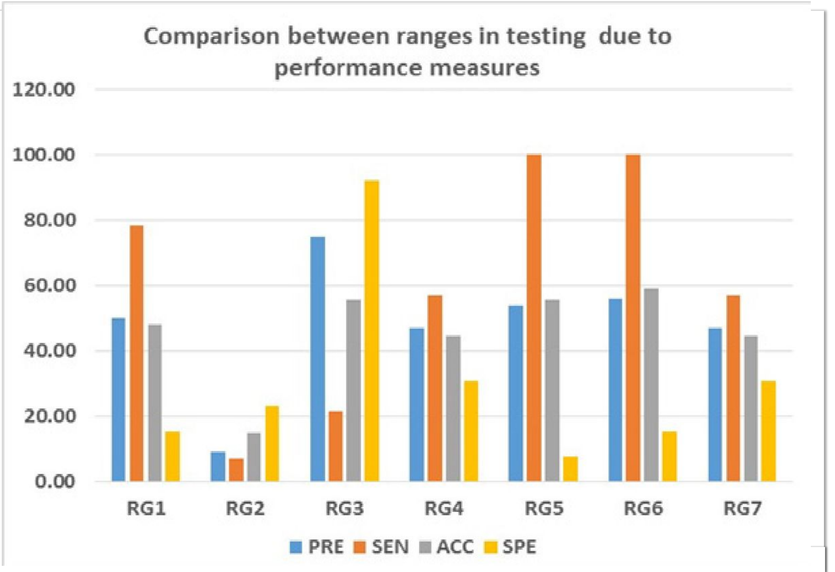
Demonstrates a potential for this technique to be used as developing a clinical tool for the diagnosis , follow up of Non-Hodgkin lymphoma patients.

METHOD

: A case control study in which serum samples of patients of NHL (DLBCL) were examined with FT-IR, each range of FT-IR curve examined. Correlation between clinical data and FT-IR results done to detect sensitivity, specificity and precision of each range.

RESULTS

In this study as regard accuracy, the best result seen in range six, five, three, and one 59.26%, 55.56%, 55.56%, 48.51% and 14.81% respectively. Least accuracy seen in range two 14.81%. As regard sensitivity, the best 2 ranges are range six and five 100% (both ranges has the higher accuracy also), while range two has the least sensitivity 7.14%. By depending on these 2 ranges with best sensitivity, we can use FT-IR as a potential tool for the detection, identification of Non-Hodgkin lymphoma patients, and to give an idea about those patients not in complete response "prognostic". As regard specificity, range 3 was the best 92.31%, by depending on this range we can use FT-IR in detection of patients in complete response after receiving treatment "prognostic".



CONCLUSIONS

FT-IR spectroscopy can be used to access serum sample of suspected NHL DLBCL patient, help in screening, rapid diagnosis, and access response to therapy.

More studies of these ranges and their chemical bonds and molecules that represent it may give us more informations that help us in understanding the disease pathogenesis and new theories may evolve . Therefore, it will be good if we collected and examined huge number of cases by using FT-IR and evaluating by the observations and clinical data, this allow more accurate testing for accuracy and percision .

ACKNOWLEDGEMENTS

None

CONTACT INFORMATION

Corresponding Address: Hematology Unit, Oncology center , Mansoura university , Mansoura , Egypt
Email maged.ebrahim90@yahoo.com
Tel no 01026984860