INTRODUCTION
Sickle-cell disease (SCD) is an autosomal recessive genetic blood disorder. Coenzyme Q10 is an oil-soluble, vitamin-like substance. The aim was to explore the possible role of coenzyme Q10 in improving the treatment and prognosis in sickle cell patient community. The first step towards this goal was to determine the levels of Coenzyme Q10 in sickle cell subjects.

MATERIAL & METHOD
In this case controlled study of sickle cell disease patients and healthy matched controls, male and females were in 1:1 ratio. Both groups were submitted to data collection regarding age, sex, height, weight and average number of hospitalisations. Various haematological and physiological parameters were measured by:
- Sickling & solubility tests
- Hematocrit and
- HPLC for CoQ10 levels

Quantitative estimations of Coenzyme Q10 levels were done for both groups.

RESULTS

For analysis purposes, the subjects were divided into five age groups:
- 13 to 22 years
- 22 to 31 years
- 31 to 40 years
- 40 to 49 years
- 50 years and above.

CoQ10 was lower in age group 13-22 by 42%
in age group 22-31 by 46%
in age group 31-40 by 43%
in age group 40-49 by 44%
in age group >50 by 43%.

DISCUSSION
The data clearly indicates that BMI of sickle cell persons lie within the underweight category

The levels of CoQ10 reported in this study are in the range of 1160 ngm/ml to 2309 ngm/ml for normal Saudi subjects while that among sickle cell subjects lies within a range of 650-1264 ngm/ml.

The levels of CoQ10 decreases with age. It was clearly evident in both males and females within each age subgroup, irrespective of being normal or sickle cell patient.

CONCLUSION
We can conclude that preliminary results with CoQ10 in SCD are promising and like the beneficial effects of Coenzyme Q10 are observed in cardiovascular, cognitive or neurodegenerative disorders, this nutrient is likely to play positive role in

BIOGRAPHY
Currently working in academics with interest in research & hematology.
Email: YOSHO1322@YAHOO.COM