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Fetal Hemoglobin Levels and Splenic Function in Sickle-Cell Disease

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A. Al-Awamy et al. [1] inclined to relate the absence of priapism in Saudi sickle-cell anemia patients to the high Hb F levels of their patients in a recent communication. This conclusion was supported by comparing their patients' findings with those of Jamaican patients with sickle cell anemia. Although Hb F levels in

Turkish sickle cell anemia patients are also higher (mean 11.5%; range 1.7–36%) compared to the Jamaican patients, we could not show any correlation between its concentration and hemaglobin, hematocrit levels, reticulocyte and normoblast counts in our patients [2]. Since Hb F levels of the authors' patients

Table I. Splenic size, Hb F levels and scanning results in patients with sickle cell disease

Age
Sex
Spleen, cm
Hb F, %
Splenic scanning

Patients with Hb SS

F
6
16
M
7
7
M
8
7
M
9
8
M
10
8
M
11
13
M
12
14
F
13
20
M

Mean
13.975

Patients with Hb S- β -thalassemia
2.5
8
9

15
15
6 9
7 10
M F M F F M F

3
14
N
3
19

N
4
6.3
NU
15
22
N
4
18
N
NP
11.3
D
NP
20
NU

Mean
15.8

NU = No uptake; D = decreased; N = normal; NP = not palpable.

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ranged between 10.3 and 29%, I would like to learn whether they have found any correlation between its level and the parameters we looked for.

The authors also mentioned that the elevated Hb F levels of their patients played an important role in preserving the splenic function in Saudi sickle cell anemia patients [3]. We could not find any correlation between Hb F levels and splenic functions in our sickle cell anemia and sickle cell- β -thalassemia patients by "Tc-sulfur colloid uptake [4] (table I). All of these patients, with one exception (who had sickle cell- β -thalassemia), had a Hb S, F, A₂ pattern [5].

In general, splenic functions of our patients seemed also to be better preserved compared to American sickle cell anemia patients. But, despite a very slight difference in the mean Hb F values between our sickle cell anemia and sickle cell- β -thalassemia (13.97 vs. 15.5%) patients, the defect in "Tc-sulfur colloid uptake was very marked, being 85 and 28.6%, respectively. Because of the above reasons, we believe that the importance of Hb F alone in the discrimination of clinical and laboratory findings in sickle cell disease should be reevaluated in different populations.

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