

Figure 3: Comparison of measurement of haemoglobin by SLS-Hb method and routine HiCN

3. Interfering Substances:

a. Leukocytosis:

The effect of high leukocyte is illustrated in (Table 3 and figure 4). The

differences from the reference method carried out in washed samples.

Table 3: The effect of WBC on measurement of Hb by SLS-Hb method and HiCN method

Method	No. of samples	Mean WBC count/cm	Hb(g/l) mean+SD	min (g/l)	max (g/l)	% Difference from Reference method (washed RBC)
SLS-Hb	12	63416.66	80.25±28.04	38	120	0.11%
HiCN	12	63416.66	80.66±27.81	39	120	0.62%
Hb after washed RBC	12	20583.33	80.16±30.51	37	125	

Note ;t = 0.890 p = 0.392 (non-significant)

b. Lipaemia:

The Hb on 15 selected samples were measured as SLS and as HiCN on whole blood and on spun plasma. Plasma reading were subtracted to obtain turbidity corrected measurements (Table 4).

C. Haemoglobin F:

Thirty-five specimens of neonatal (cord) blood were measured by SLS method and HiCN method, comparison of SLS and HiCN is show in (Table 5 and figure 5). Mean (g/l) of Hb by SLS method was 158.62 + 21.47 (110-187), while mean (g/l)

by HICN was 158.85 + 59 (110-189), with significant correlation (r = 0.995).

4. Haemoglobin Derivatives:

Haemoglobin concentration was measured on blood samples by spectrophotometry as HiCN and Hb-SLS after converting proportion of Hb to methaemoglobin, (Table 6 and figure 6). Mean of Hb (g/l) by SLS method was 115.254+33.01 (36-163), while mean by HiCN was 115.08 + 32.74 (35-161), with significant correlation (r=0.999).