



Level of serum ferritin between normal people, diabetics, hepatitis C, and those diabetic patients concomitant with hepatitis C

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Abstract:

To compare the level of serum ferritin between normal control subjects, diabetic patients, patients with viral hepatitis C, and diabetic patients concomitant with hepatitis C, respectively.

Keywords: Serum ferritin; Diabetes, Hepatitis C

Introduction:

A high prevalence of diabetes has been reported in patients hepatitis C virus (HCV) infectin. Both diabetes and HCV infection are associated with high serum ferritin levels. Although HCV infection could be the main factor responsible for the high ferritin levels, it is also possible that diabetes rather than HCV infection might be a major contributor to the high ferritin levels observed in patients with HCV infection. The aim of this study was to investigate the contribution of diabetes to the high ferritin levels observed in HCV-infected patients with chronic hepatitis.

Methods:

In a cross-sectional study measured the serum ferritin for 34 subjects attended Prince Rashed Military Hospital, 15 of them males, and 19 females, their age ranged from 48 to 68 years; including 13 normal (control group), 10 cases of diabetes, 7 cases with hepatitis C, and 4 cases had hepatitis C with diabetes. We used ANOVA and compare the means, the results consider significant when P-value less than 0.05.

Results: Serum ferritin showed no statistical significant difference between males [48.3 ± 26.0 mg/ml] and females [46.2 ± 33.4 mg/ml]. The level of serum ferritin was steadily increasing between control group [22.4 ± 6.4 mg/ml], [diabetics [54.1 ± 18.6 mg/ml], [hepatitis C [57.9 ± 21.3 mg/ml], [and diabetics group with hepatitis C [91.5 ± 45.2 mg/ml], [respectively.



Figure 1. Serum ferritin showed no statistical significant difference between males and females [P-value = 0.841]

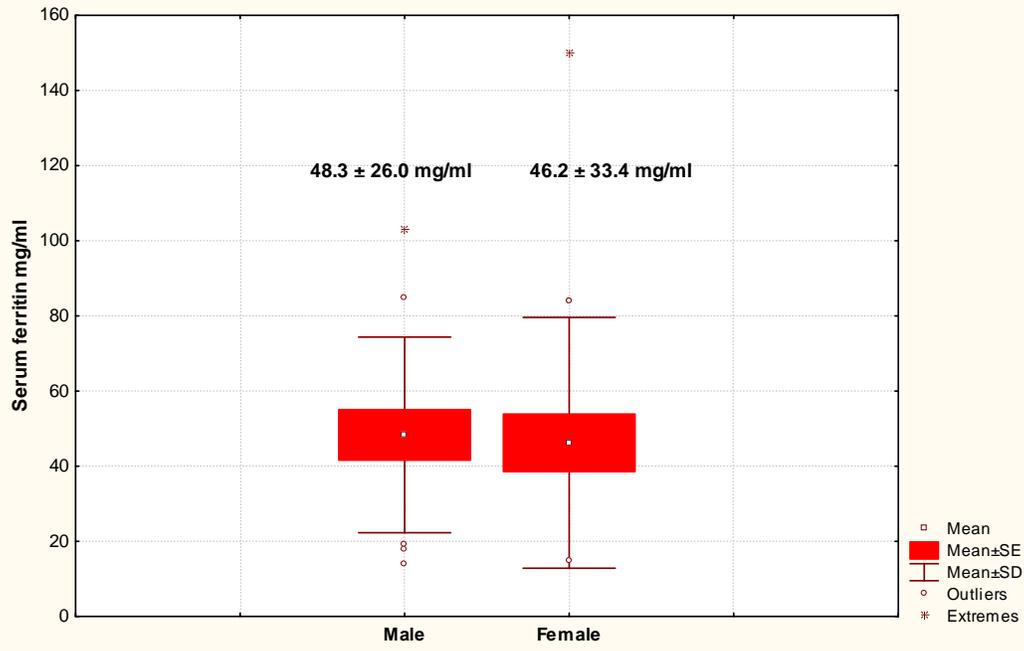
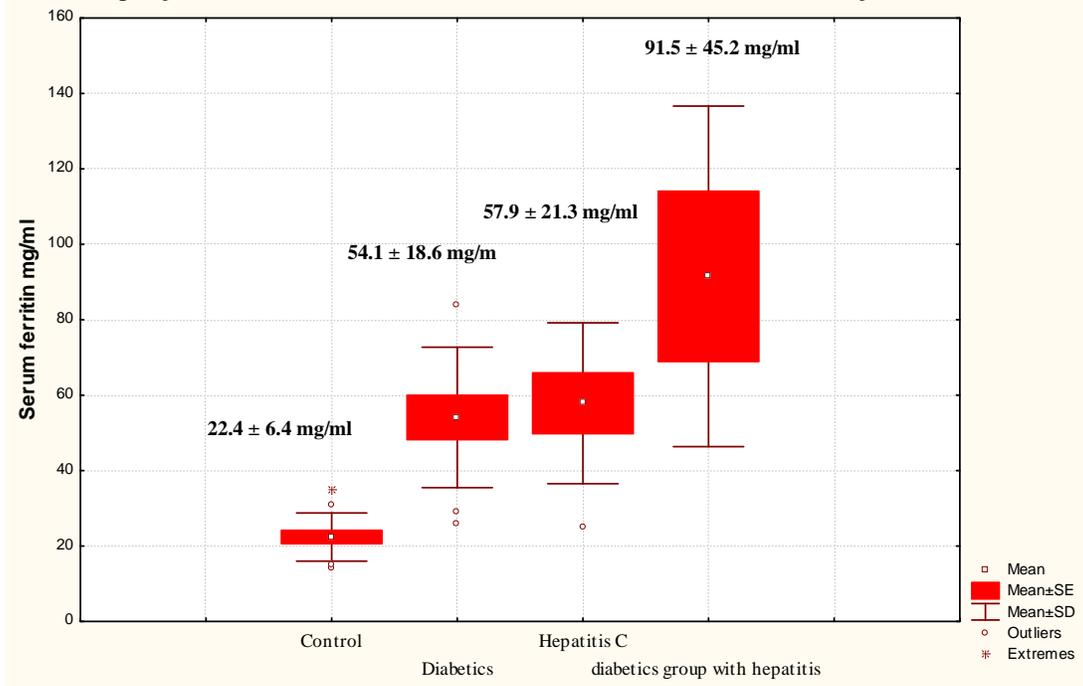


Figure 2. Serum ferritin separately in each cases of diabetes and hepatitis C, was twice what it is in control group, While it becomes four times when diabetes is associated with viral hepatitis C



	Name	No	Ferritin	Case	Gender	Age
1	يحيى والد مصطفى	264019	64.00	DM + Hep C	Male	67.00
2	محمود والد احمد	218441	103.00	DM + Hep C	Male	60.00
3	محمود عودة قاسم	91813	58.00	DM	Male	63.00
4	مصطفى سليم	62064	59.00	DM	Male	49.00
5	علي عبدالرحمن اسعد	33449	18.00	Normal	Male	62.00
6	احمد علي محمد	19682	65.00	DM	Male	49.00
7	زينب والدة عمر	145526	28.00	Normal	Female	54.00
8	ندية والدة سمير	16411	84.00	Hep C	Female	57.00
9	عقيلة والدة حسين	33378	18.00	Normal	Female	68.00
10	حورية زوجة علي	146779	17.00	Normal	Female	53.00
11	نوال زوجة عبدالكريم	620022	75.00	DM	Female	51.00
12	علي محمد عبدالرحمن	97176	25.00	Hep C	Male	56.00
13	فخري والد رضوان	1448	41.00	DM	Male	58.00
14	امنة زوجة محمد	141773	25.00	Normal	Female	58.00
15	حليلة والدة احمد	123607	23.00	Normal	Female	55.00
16	عبدالله مصطفى	12762	85.00	Hep C	Male	54.00
17	بهية زوجة علي	85373	56.00	DM	Female	52.00
18	صفية والدة ياسر	5213	150.00	DM + Hep C	Female	59.00
19	محمد والد عمر عليان	253121	35.00	Normal	Male	66.00
20	بلال محمد سليمان	286835	51.00	Hep C	Male	59.00
21	فاطمة زوجة مرزوق	239942	2.00	Hep C	Female	67.00
22	شما والدة ناجي شحادة	43137	48.00	DM	Female	63.00
23	جلوة زوجة حسن	59882	26.00	Normal	Female	61.00
24	قنصا والدة احمد	135307	84.00	DM	Female	68.00
25	مريم والدة خالد	231883	51.00	Hep C	Female	64.00
26	هلاله والدة عواد	153885	31.00	Normal	Female	67.00
27	نايف حسني ابراهيم	101645	26.00	DM	Male	57.00
28	احمد فلاح حسين	13153	62.00	Hep C	Male	59.00
29	خديجة والدة راضي	22615	29.00	DM	Female	58.00
30	عائشة زوجة مصلىح	13791	15.00	Normal	Female	67.00
31	مصطفى والد بلال	29921	19.00	Normal	Male	53.00
32	علي حسين	15808	14.00	Normal	Male	56.00
33	رسمية والدة طاهر	294511	22.00	Normal	Female	48.00
34	امينة والدة احمد حسن	341727	49.00	DM + Hep C	Female	62.00

Conclusion :Serum ferritin separately in each cases of diabetes and hepatitis C, was twice what it is in control group ,while it becomes four times when diabetes is associated with viral hepatitis C.

References:

1. Gray H, Wreghitt MI, Stratton IM, AlexaNDER gj, Turner R C,O' RahillyS:High prevalence of hepatitis C infection n Afro- Caribbean Patients with Type 2 DIABETES and abnormal liver function test. Diabet Med 1995 (12) 244-249
2. Manson AL, Lau JY, Hoang N, Qian K, Alexander GJ, XU L, Guo L, Jacob S, Regenstein FG, Zimmerman R, Everhart JE, Wasserfall C, Macleren NK, Perrillo RP: Association of Diabetes mellitus and chronis hepatitis C virus infectin. Hepatology 1999 (29) 328-333
3. Simo R, Hernandez C, Genesca J, Jardi R, Mesa J: High prevalence of hepatitis C Virus infection in diabaetic patients. Diabetes Care 1996 (19) 998-1000
4. Allison ME, Wreghitt T, Palmer CR, Alexander GJ: Evidence for link between hepatitis C virus infection and Diabetes mellitus in a cirrhotic population. J Hepatol, (1994, (21) 1135-1139

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