

ORIGINAL ARTICLE

Grewia tenax fruits as a traditional remedy for iron deficiency anemia: A comparative clinical study with ferrous salt

Supplementary File

Table S1. Repeated measures ANOVA for hemoglobin levels across four weeks

	Effect	F-value	p-value	Significance
Baseline	Group (GT vs. FG)	35.17	<0.0001	Highly significant
	Time (Week 0–4)	2.46	0.048	Significant change
Week 4	Interaction (Group×Time)	1.65	0.166	Not significant

Table S2. Between-group ANOVA by week for hemoglobin

Week	Effect	Mean square	F-value	p-value	Significance
Week 0	Between groups	2.227	2.128	0.154	Not significant
	Within groups	1.047	–	–	Not significant
Week 1	Between groups	2.166	1.578	0.218	Not significant
	Within groups	1.372	–	–	Not significant
Week 2	Between groups	9.810	7.616	0.009	Significant
	Within groups	1.288	–	–	–
Week 3	Between groups	8.822	6.105	0.019	Not significant
	Within groups	1.445	–	–	–
Week 4	Between groups	14.303	9.338	0.005	Significant
	Within groups	1.532	–	–	–

Table S3. ANOVA analysis of reticulocyte counts across four weeks

Time point	Effect	Sum of squares	Mean square	F-value	p-value	Significance
Week 0	Between group	0.026	0.026	0.203	0.655	Unsignificant
	Within group	4.024	0.126			
Week 1	Between group	0.191	0.191	1.467	0.235	Unsignificant
	Within group	4.159	0.130			
Week 2	Between group	0.127	0.127	1.641	0.209	Unsignificant
	Within group	2.480	0.078			
Week 3	Between group	0.175	0.175	1.967	0.170	Unsignificant
	Withing group	2.845	0.089			
Week 4	Between group	0.378	0.378	4.445	0.043	Significant
	Within group	2.722	0.085			

Table S4. ANOVA analysis of serum iron at baseline and week 4

Time point	Effect	Sum of squares	Mean square	F-value	p-value	Significance
Baseline	Between groups	3,465.708	3,465.708	2.569	0.119	-
	Within groups	43,168.057	1,349.002	3.38	0.047	Significant
Week 4	Between groups	4,553.196	4,553.196	4.218	0.048	Significant

Table S5. ANOVA analysis of serum ferritin at baseline and week 4

Time point	Effect	F-value	p-value	Significance
Baseline	Between groups	41.573	0.000	Significant
	Within groups	32.00	0.00	Significant
Week 4	Between groups	125.562	0.000	Significant
	Within groups	32.00	0.00	Significant

Table S6. ANOVA analysis of total iron-binding capacity at baseline and week 4

Time point	Effect	Sum of Squares	df	Mean square	F-value	p-value	Significance
Baseline	Between groups	18,584.794	1	18,584.794	0.957	0.335	Not significant
	Within groups	621,599.749	32	19,424.992	-	-	-
	Total	640,184.544	33	-	-	-	-
Week 4	Between groups	47,679.784	1	47,679.784	2.328	0.137	Not significant
	Within groups	655,503.843	32	20484.495	-	-	-
	Total	703,183.627	33	-	-	-	-

Table S7. Summary of key differences between treatment regimens

Parameter	<i>Grewia tenax</i> users	Ferrous gluconate users
Hemoglobin increase	50% of participants responded; average increase=0.5 g/dL; slow increase, peaking in the 4 th week.	78% of participants responded; average increase 1.2 g/dL; fast increase peaking in the 3 rd week.
Reticulocyte count	Increase in week 1 followed by a decline; consistent with the literature in 45% of patients.	Slight continuous decrease; inconsistent with the literature in 42.8% of patients.
Serum iron	Average increase of 27.2 µg/dL in 65% of participants.	Average increase of 44.5 µg/dL in 50% of participants; more significant improvement in circulating iron.
Serum ferritin	45% of patients increased; mean increase 7.82 µg/L; may contribute to maintaining storage iron.	78.5% increased; mean increase 7.42 µg/L.
Total iron-binding capacity	Average reduction 37 µg/dL.	Average reduction 27.5 µg/dL.