

# The Impact of Interferon Therapy on the Sexual Function of Hepatitis C Male Patients

Ali Mahran, MD

Ass. Prof. of Andrology and Sexology

*Assuit University, Egypt*



# Introduction

- Hepatitis C virus (HCV) infection represents a major health problem and is estimated to affect 170 million persons worldwide.
- While some chronic Hepatitis C patients maintain normal sexual function and a healthy interest in sex, many experience reduced libido, erectile dysfunction and diminished sexual satisfaction.



- Cases of erectile dysfunction in men with chronic hepatitis C have been reported, but it is unclear whether the blame should be placed on the virus itself or on poor liver function caused by the infection.
- Additionally, antiviral medications (interferon therapy) typically used to battle Hepatitis C virus may cause sexual dysfunction and decreased libido.

# Aim of the study

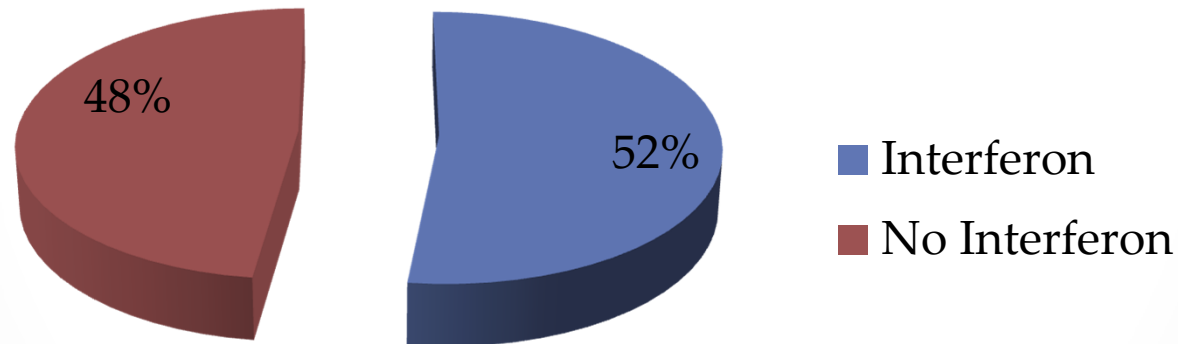
To evaluate the impact of interferon therapy on male sexual function in Hepatitis C patients.

# Material and methods

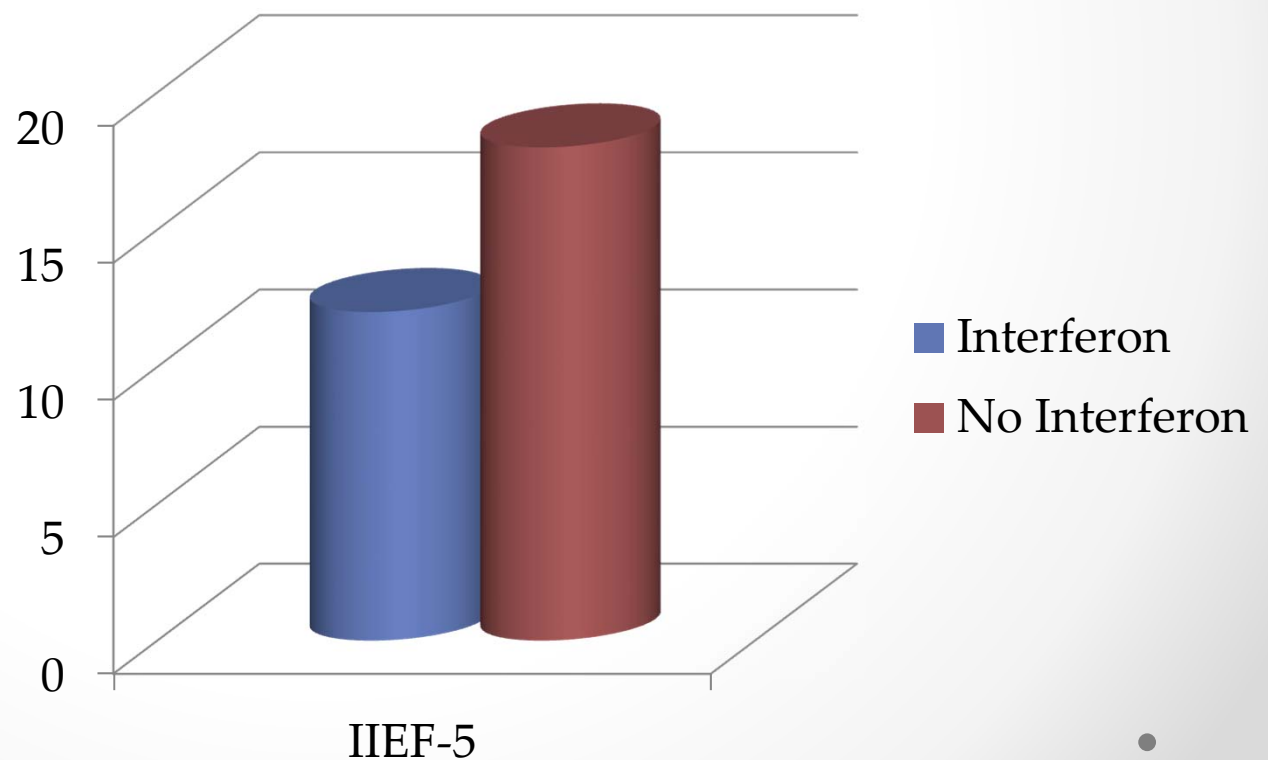
- One hundred patients suffering of Hepatitis C infection were included in the study.
- All participants underwent
  - History taking including IIEF-5 score
  - General and local examination
  - Hormonal profile assessment
  - Pharmacopenile duplex ultrasonography

# Results

- Fifty two (52%) patients were receiving interferon and forty eight (48%) patients were not receiving interferon.



- The IIEF-5 score of patients on interferon ( $12 \pm 4.5$ ) was significantly lower than patients not receiving interferon ( $18 \pm 6.5$ ) ( $P = 0.022$ ).
- Moreover, IIEF-5 score showed significant negative correlation with the duration of interferon therapy ( $r = -0.366$ ,  $P = 0.01$ ).

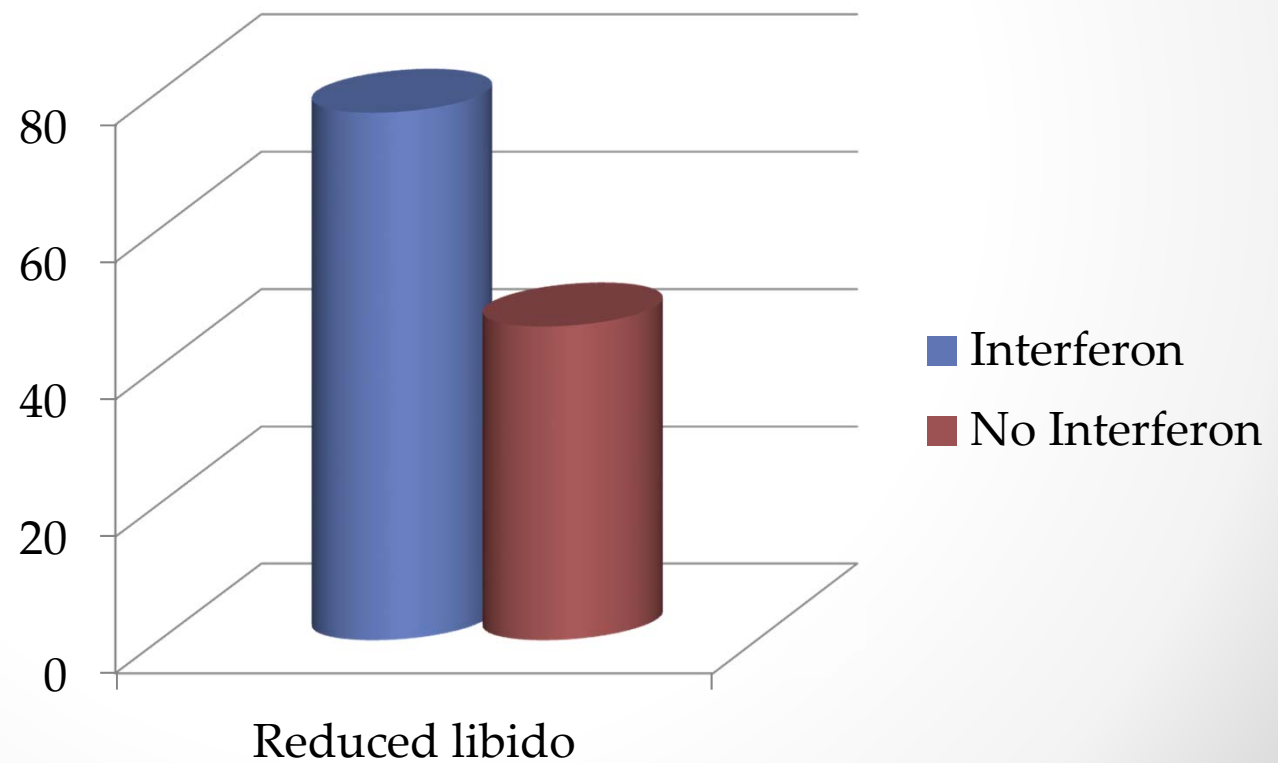


## IIEF-5 score in interferon and non interferon treated groups:

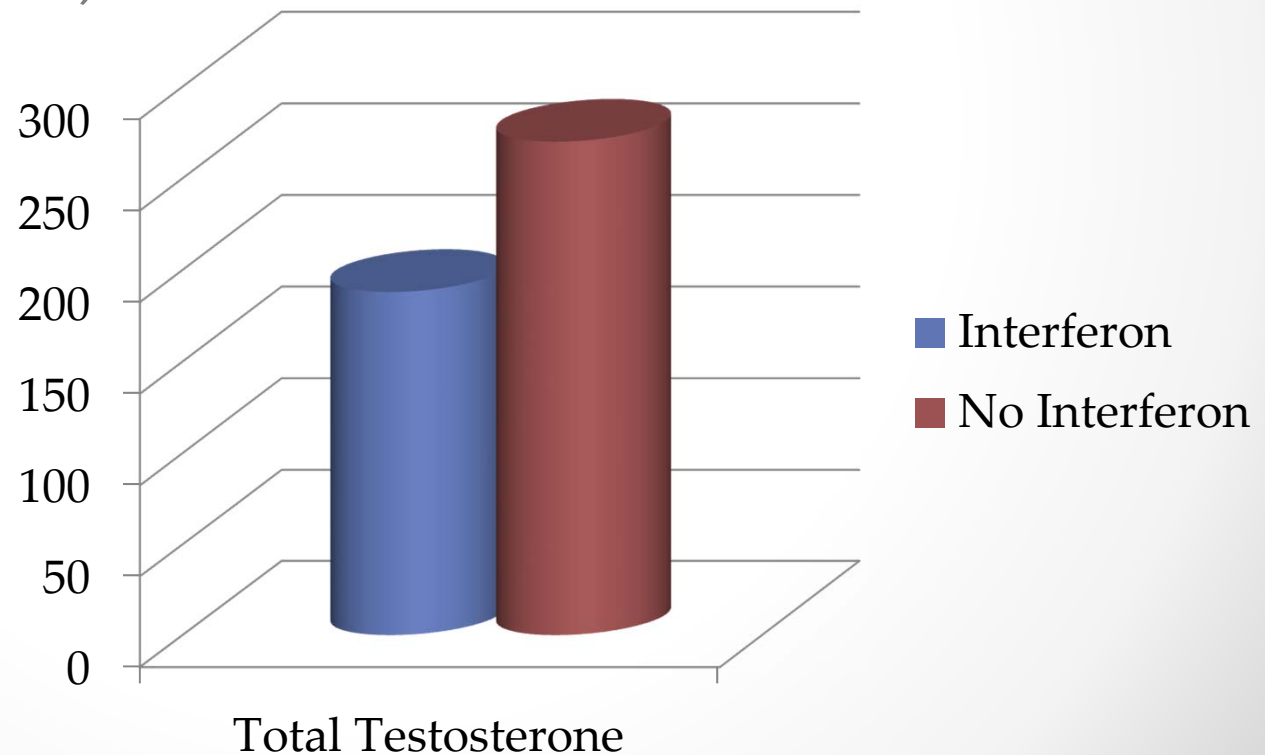
Items of IIEF-5 score	Interferon treated group (52%)		Non interferon treated group (48%)		P value
	Mean	SD	Mean	SD	
IIEF1	2.1	0.9	4.4	1.2	<b>0.005</b>
IIEF2	3.4	1.2	5.2	2.1	<b>0.095</b>
IIEF3	3.2	1.2	3.5	0.8	<b>0.573</b>
IIEF4	2.2	0.7	4.2	1.2	<b>0.103</b>
IIEF5	2.6	0.5	2.9	1.2	<b>0.192</b>
<b>Total IIEF-5 score</b>	<b>12.7</b>	<b>4.5</b>	<b>18.7</b>	<b>6.5</b>	<b>0.022</b>



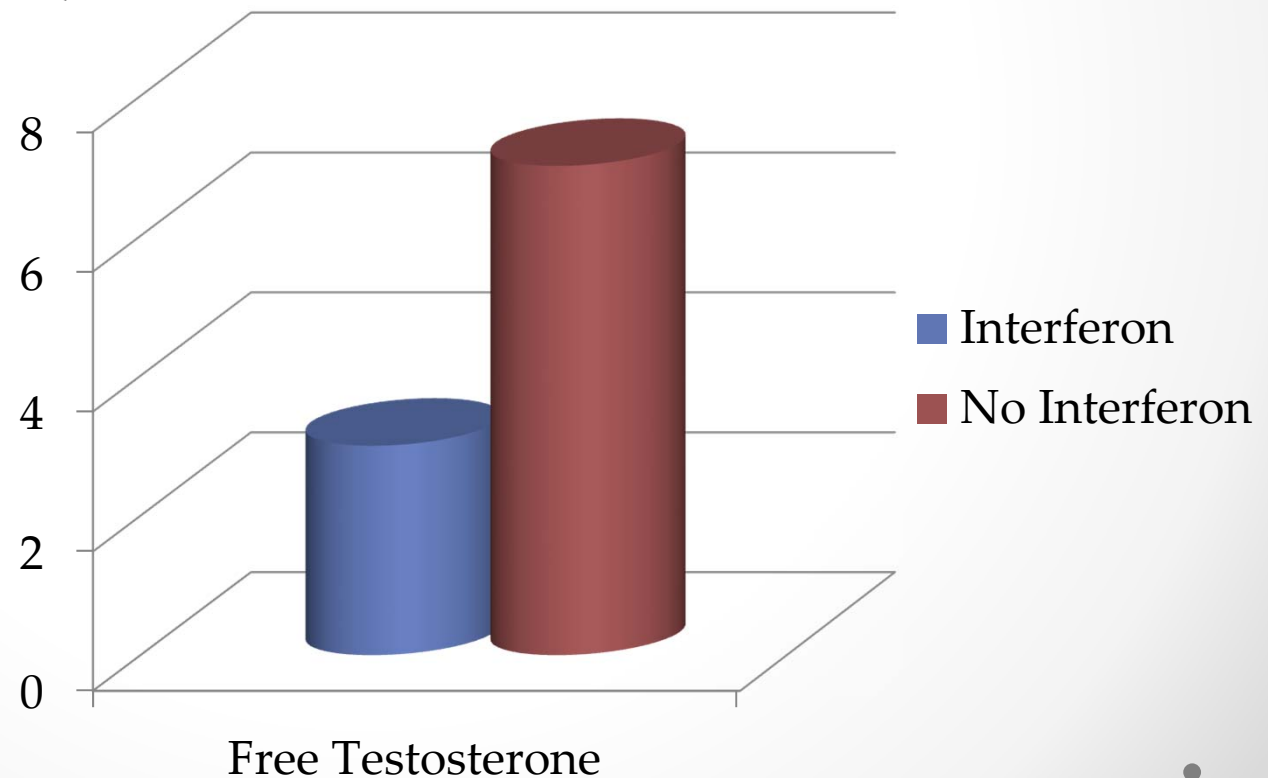
- Forty (76.9%) patients on interferon reported low or absent sexual desire compared to twenty two (45.8%) patients of non-interferon treated group (P=0.001).



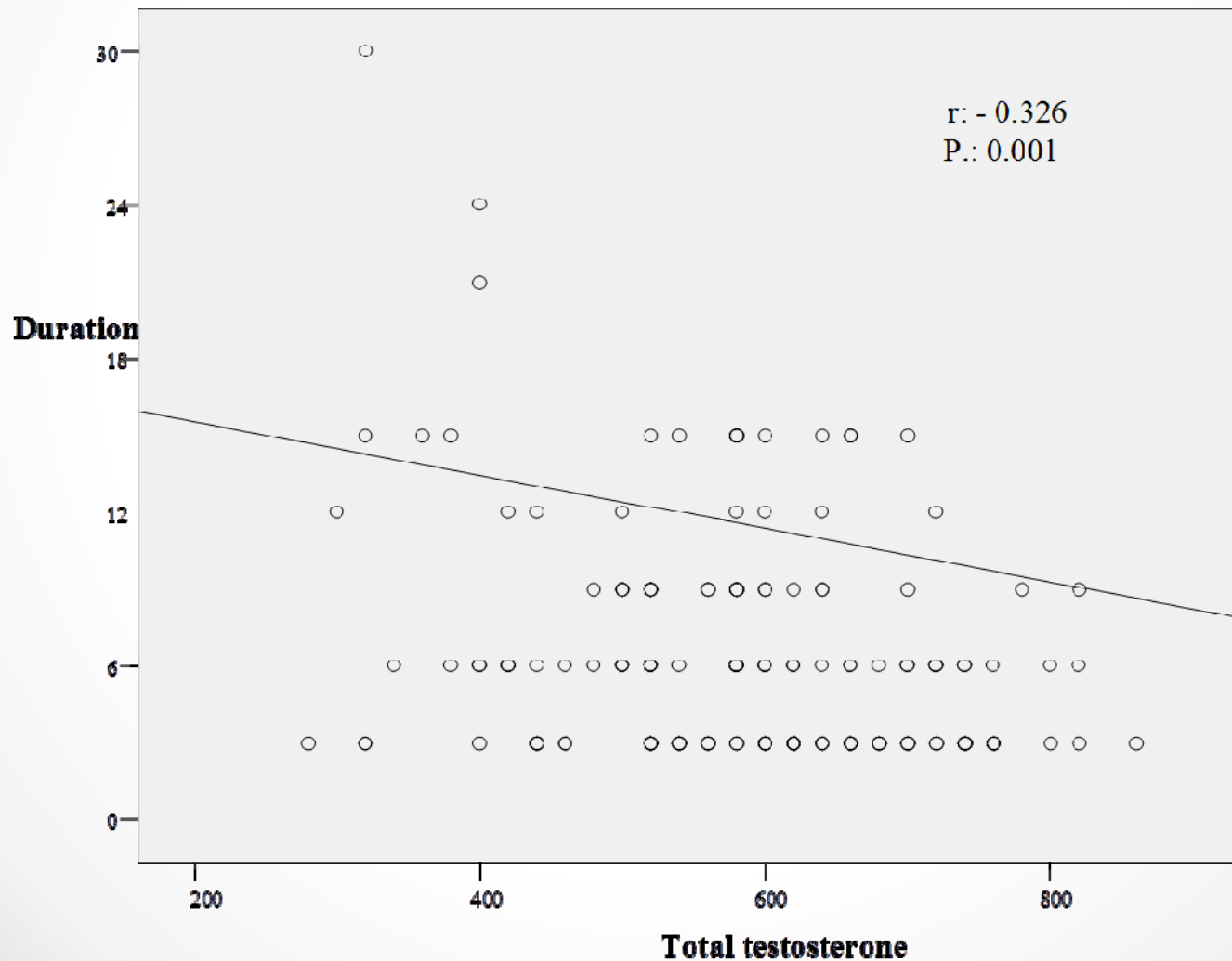
- Total testosterone among interferon treated patients ( $188 \pm 13.7$  ng/dL) was significantly lower than non-interferon treated patients ( $270 \pm 18.6$  ng/dL) ( $P= 0.001$ ).



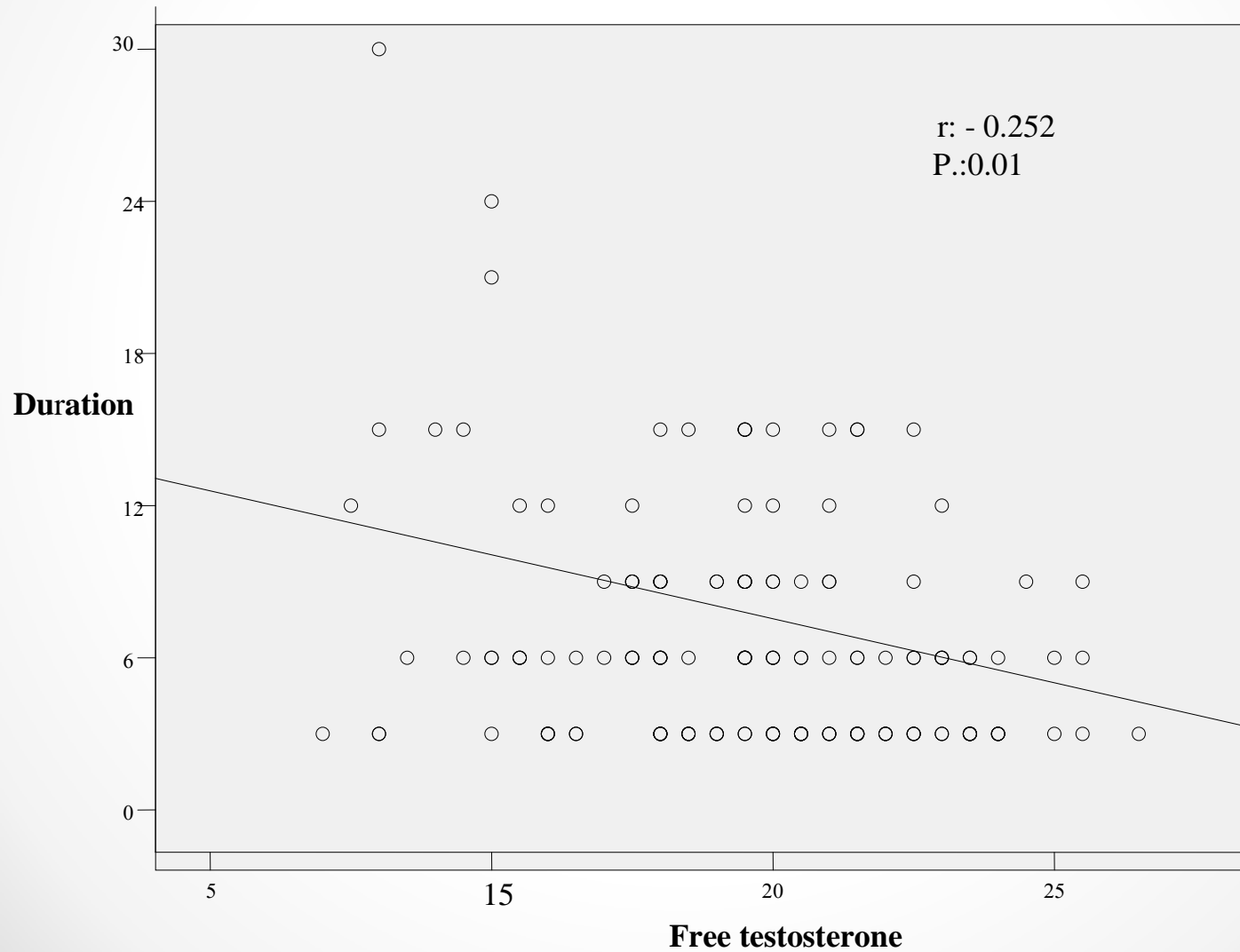
- Similarly, free testosterone level among interferon treated patients ( $3 \pm 1.2$  ng/dL) was significantly lower than non-interferon treated group ( $7 \pm 2.3$  ng/dL) ( $P= 0.05$ ).



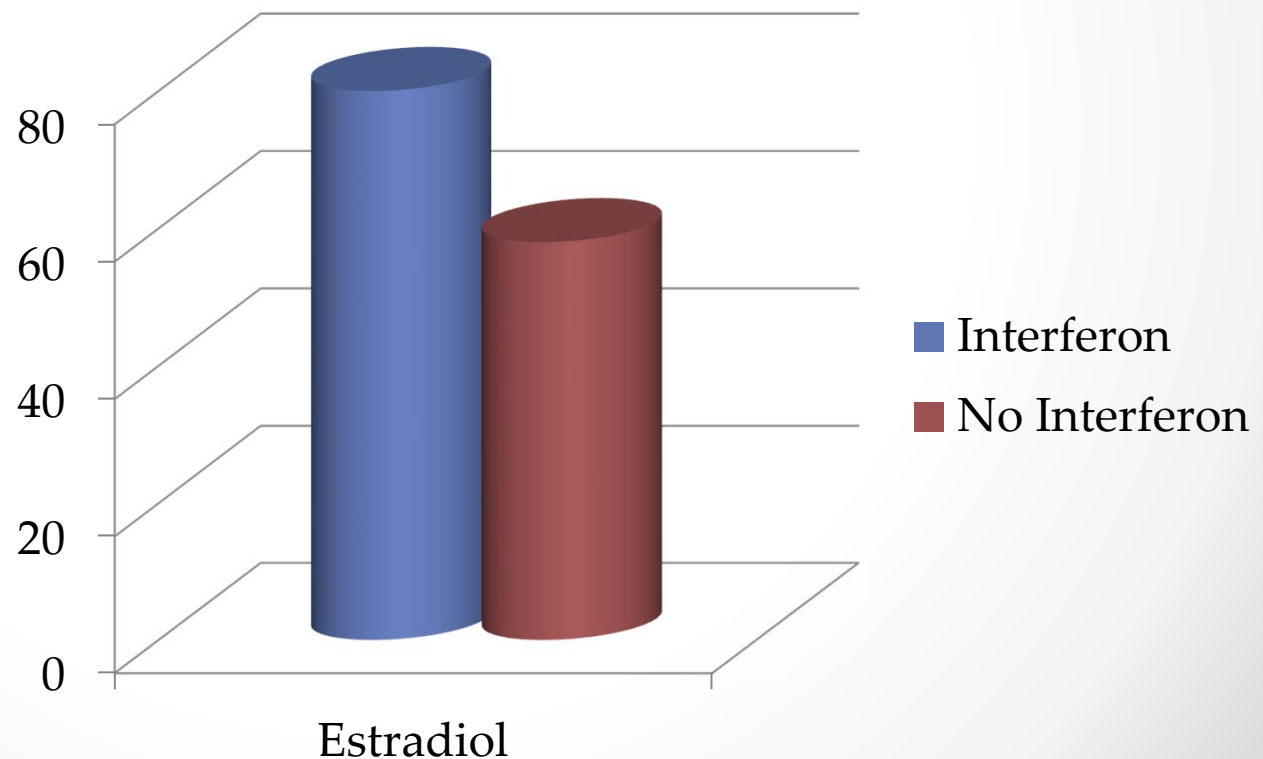
## Correlation between duration of interferon therapy and serum total testosterone level:



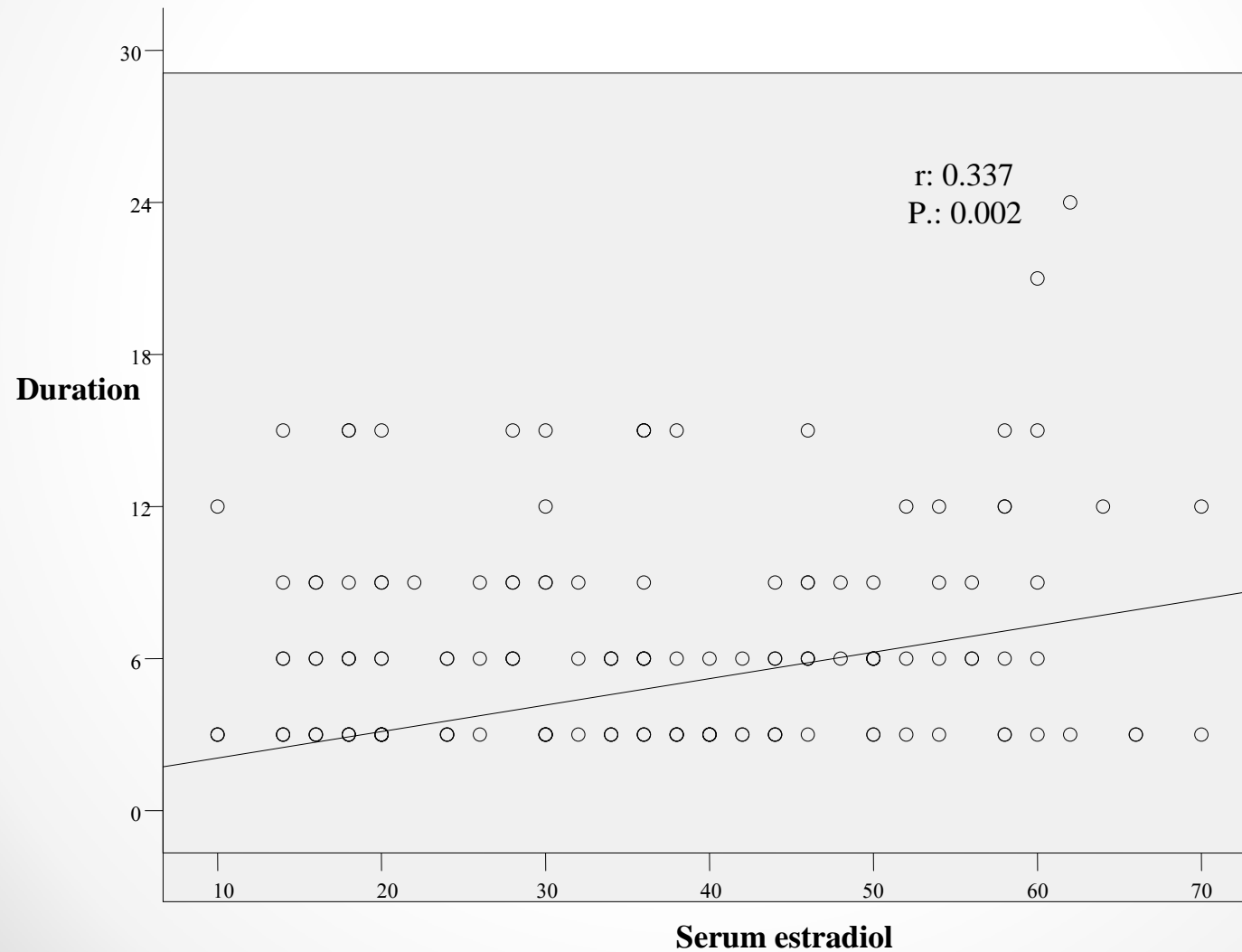
# Correlation between duration of interferon therapy and serum free testosterone level:



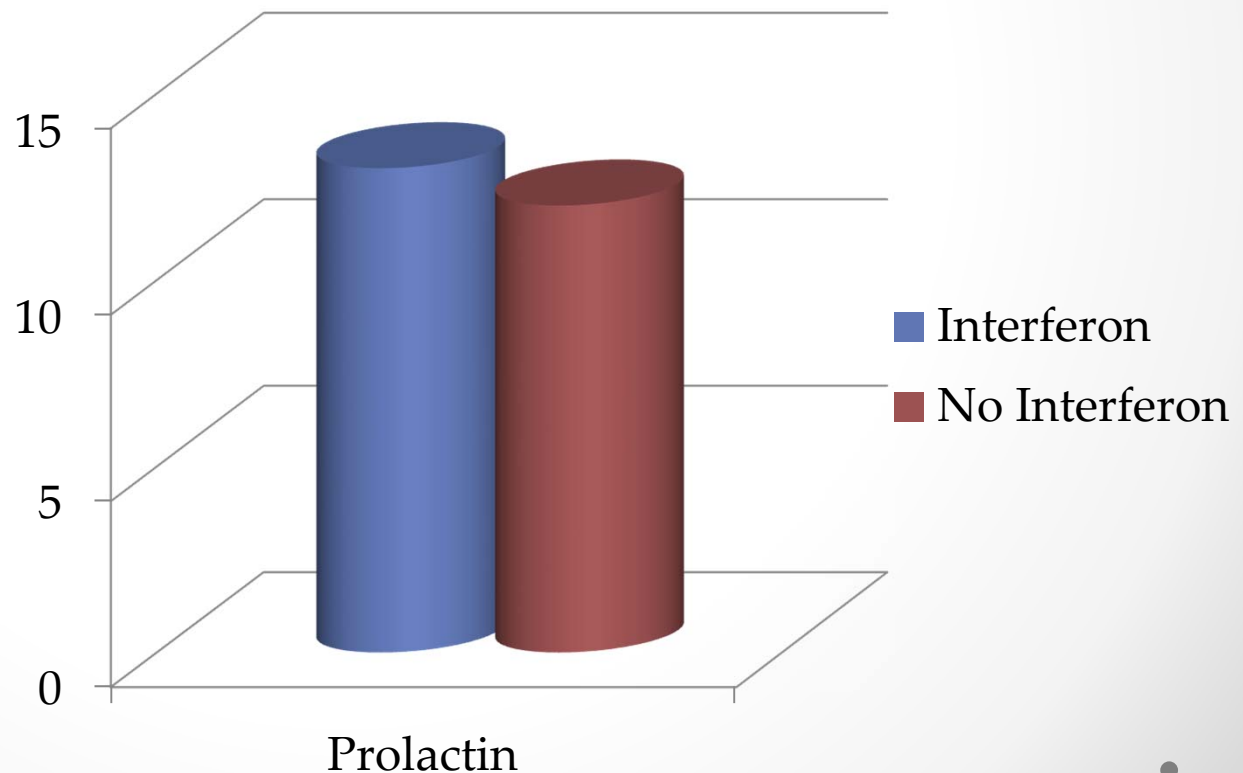
- Serum estradiol level among interferon treated patients ( $80 \pm 12.3$  pg/ml) were significantly higher than non-interferon treated patients ( $58 \pm 13.3$  pg/ml) ( $P= 0.01$ ).



## Correlation between duration of interferon therapy and serum estradiol level:

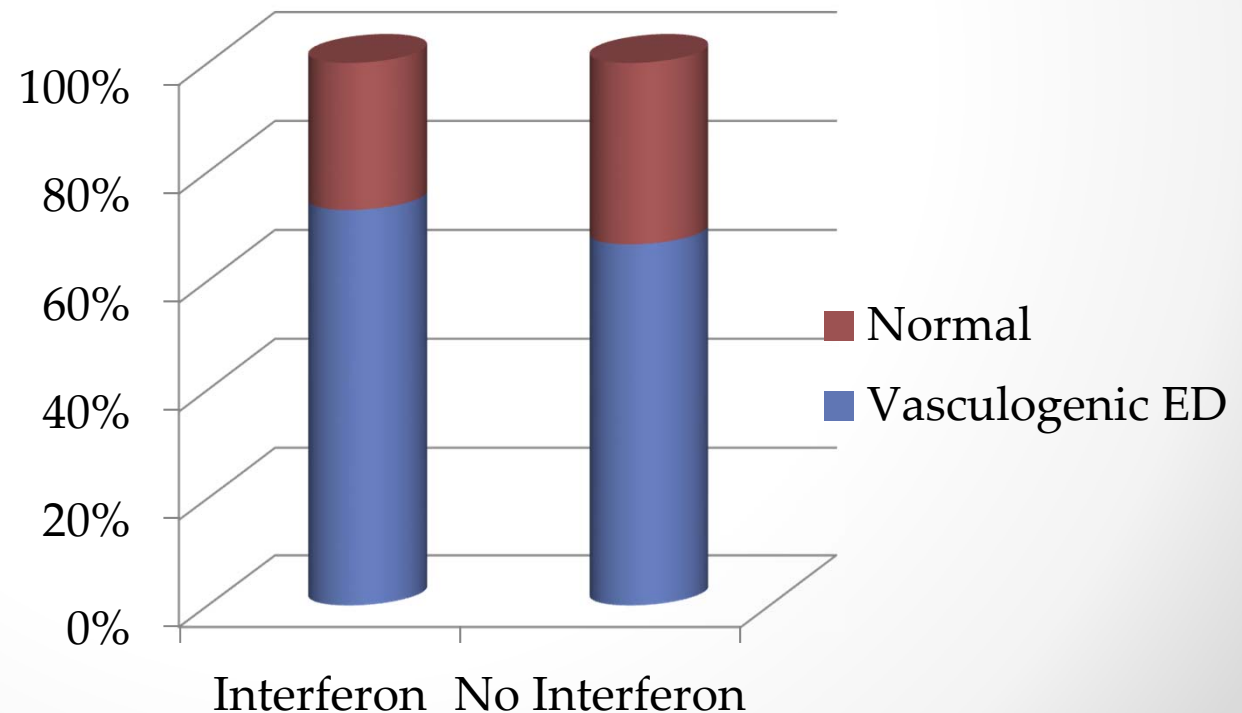


- Serum prolactin level showed no significant difference between the interferon treated ( $13 \pm 4.3$  ng/ml) and the non-interferon treated groups ( $12 \pm 3.5$  ng/ml) ( $P= 0.59$ ).





- As regards penile duplex results, thirty eight (73%) patients on interferon showed vasculogenic erectile dysfunction compared to thirty two (66.7%) patients not receiving interferon (P=0.11).



# Conclusion

Interferon had negative impact on male sexual function.

Patients on interferon showed

- lower IIEF-5 score

- loss of desire

- lower total and free testosterone levels

- higher estradiol level

However, interferon did not affect penile hemodynamics.



THANK YOU

