

# Relationship Between Prolactin and Infertile

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Received: Aug 05, 2023,

Revised: Aug 12, 2023,

Accepted: Aug 15, 2023,

DOI: 10.57238/jbb.2023.6951.1035



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article online

## 1 Introduction

this article discussed the relationship between prolactin and sterility that creates the organism and results were obtained by taking samples that provide fixed evidence to clarify the relationship between them as prolactin is known as the milk hormone that is secreted through the frontal lobe of the pituitary gland and it is known that the decrease in the prolactin hormone leads A significant decrease in the level of testosterone, which leads to an effect on sexual characteristics. The results showed that there was no significant relationship between the hormone and the movement of sperm [1, 2].

Through the research, some scientifically proven facts have been concluded on our findings, that hyperprolactinemia to high levels is present and unfa-

## Abstract

Relationship between prolactin and infertile. Our study group consists of 150 infertile men, aged 25 to 40 years. Patients were attending infertility department at Medical Baghdad Center in Iraqi. Hyperprolactinemia refers to the consistent presence of abnormally high levels of prolactin in the blood after ruling out the physiological causes of prolactin hypersecretion. The commonest causes of chronic hyperprolactinemia are a prolactinoma primary hypothyroidism, and drugs that elevate serum prolactin levels. Clinical signs and symptoms of hyperprolactinemia are usually resolved when prolactin levels are lowered to within the normal range.

**Keywords:** Prolactin; Seminal fluid; Infertile; Dopamine; Hormone

miliar if you compare it to the prolactin levels present in the blood and where if we search for the causes of hyperprolactinemia and high levels of prolactin are through prolactinoma tumor and the second reason is the presence of some drugs that It contributed influentially to the knowledge of the level of prolactin and then it was found that hyper and increase in any form, whether directly or otherwise, provided negative results and effects on the percentage of centenary animals, and contributed chronically to the amount of sperm production and fertility. This rise may result in negative factors, including Milky secretions, and if the elevation rate in prolactin is slight, it results in minor damage that does not cause anxiety, and one of the most important reasons that formed this rise is the result of prolactin in the pituitary gland, and other reasons are drugs such as drugs used to treat depres-

sion and pain relievers, which leads to an imbalance in the work Thyroid and cyst ovaries [3–5].

When referring to PRL, it was found that it constitutes about 15 to 25 pituitary cells, whereby PPR is inhibited by several methods, the most important of which is the presence of D-type 2 binding, and this leads to PRL dissociation of secretory vesicles, as it was considered the only and logical treatment. For the treatment of patients with HPL, and not only this, as it was found that there are other inhibiting factors for the release of PRL, including GABA acid, and through the stimulation of DA, it has negative effects on its release [6–9].

One of the most important ways to increase it is.

1. Eat a quantity of proteins or amino acids that enhance the production of dopamine.
2. The practice of sports helps to reinforce it and increase its levels.
3. Adequate sleep: Lack of sleep appears to reduce the sensitivity of dopamine in the brain, leading to excessive sleepiness and fatigue, so maintain a good sleep system.
4. Listening to musical compositions: Research shows that mechanical music may raise the level of dopamine production in the brain, however there is still a need to research the effect of singing music.

## 2 Materials and Instruments used in the study

1. Adhesive gauzes/tape - ensures the vein cut site after accumulation.
2. Alcohol Wipes - 70% isopropyl liquor.
3. Biohazard squander holder.
4. gel tub for collected serum
5. Eppendorf tubes.
6. sterile cup for collected seminal fluid
7. Gloves - can be made of latex, elastic and vinyl.
8. Micro Pipettors (limit 5-40  $\mu$ l. 40-200  $\mu$ l. 200-1000  $\mu$ l).
9. Plane tube for serological and biochemical tests.
10. Tourniquet.
11. 60 °C  $\pm$  2°C dry warmth square.
12. Biohazard waste compartment.
13. Biological bureau (Italy).

14. minividus biomerieux .
15. Centrifuge.
16. Incubator.
17. Refrigerator.



Figure 1: shown below VIDAS®

## 3 Result by spss

Statistical analysis appeared in the overall groups of people with abnormal sperm motility significantly correlating with serum levels of PRL hormone based on current data, it is difficult to determine the role of PRL serum in hypoplastic patients and sperm disease and that the high concentration of prolactin in the serum led to Inhibiting prostate growth (12.13).

A noticeable increase in the level of prolactin was observed in the case of sperm and hemolysis. Likewise, some reports have found higher serum levels. Prolactin elevation may indicate a separate feedback mechanism mediated by the early stages of spermatogenesis and not by testosterone alone (22). Our results showed that there was no significant level of PRL detection observed in the semen of study groups which may explain the role of other factors, including hormones, in sperm count abnormalities and a subsequent decrease in movement. In a study by Fuller (14.15).

**Table 1:** show Explanation result Test the relationship between prolactin with Active, Sluggish, Normal, and up Normal.

		Correlations				
		Prolactin	Active	Sluggish	Normal	up Normal
prolactin	Pearson Correlation	1	-0.012-	0.040	-0.026-	0.026
	Sig. (2-tailed)		0.884	0.625	0.755	0.755
	Normal	149	149	149	149	149
Active	Pearson Correlation	-0.012-	1	-0.264-**	0.245**	-0.245-**
	Sig. (2-tailed)	0.884		0.001	0.003	0.003
	Normal	149	149	149	149	149
Sluggish	Pearson Correlation	0.040	-0.264-**	1	0.027	-0.027-
	Sig. (2-tailed)	0.625	0.001		0.740	0.740
	Normal	149	149	149	149	149
Normal	Pearson Correlation	-0.026-	0.245**	0.027	1	-1.000-**
	Sig. (2-tailed)	0.755	0.003	0.740		0.000
	Normal	149	149	149	149	149
up Normal	Pearson Correlation	0.026	-0.245-**	-0.027-	-1.000-**	1
	Sig. (2-tailed)	0.755	0.003	0.740	0.000	
	Normal	149	149	149	149	149

\*\* Correlation is significant at the 0.01 level (2-tailed).

## 4 Conclusion

1. Hyperprolactinemia refers to the consistent presence of abnormally high levels of prolactin in the blood after ruling out the physiological causes of prolactin hypersecretion.
2. The commonest causes of chronic hyperprolactinemia are a prolactinoma primary hypothyroidism, and drugs that elevate serum prolactin levels.
3. Clinical signs and symptoms of hyperprolactinemia are usually resolved when prolactin levels are lowered to within the normal range.

**Conflict of interest:** No conflicts of interest exist between the authors and the publication of this work.

**Ethical consideration:** The ethical committee approved the study at Çankırı Karatekin Üniversitesi Çankırı, Turkey

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#### How to cite this article

Mohammed A. M.; Jasim H. R.; Shanshool M. T.; Hadi F. H.; Relationship Between Prolactin and Infertile. Journal of Biomedicine and Biochemistry. 2023;2(3):55-58. doi: 10.57238/jbb.2023.6951.1035