

## EFFECT OF FROZEN MEAT IN THE HORMONAL IMBALANCE IN MALE IN THE DIWANIYAH CITY

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### SUMMARY

This study aims and taking place for the first time in Iraq to study the frozen food imported effect leads to the tyranny of (chicken) on the imbalance in the concentrations of hormones in the male the feminine qualities of the male and this phenomenon has increased significantly in recent years in Iraq and the Arab world, but unfortunately did not have any research or a local or Arab studies to clarify the causes of this phenomenon, and the study of the difference between domestic and imported chicken from where the remains of hormones in the aqueous extract and alcohol for them. It has been collecting blood samples for ten male donors students of junior high school age (16-18) after what has been Mlehm required forms, which

include several things to make sure there are no hormonal imbalance is diet, by drawing blood from a vein measure each of testosterone the hormone progesterone. and stimulating follicles and LH and prolactin measured by the ViDas device in Diwaniyah Laboratory. Where they found the results very clear increase in the concentration of the hormone prolactin, where the average values (24.51) and natural value (14 - 1.0) and the remaining percentages of normal almost with slight variations and are as follows: The average testosterone values (5.11) Natural Value (3 -10.6) hormone progesterone (0355) and natural values. (0.56 to 0.25), the average values of the hormone stimulating follicles (2.5) and natural values were) (1.7\_12) and the average of the values of LH (3.45) and natural values (1.1 – 7) Results obtained from this study show a rise in the hormone prolactin in males values and this is not normal and leads to severe impact damage, including infertility and the emergence of female traits such as large chest size and lack of hair. etc. We chose males age (16-18) due to the fact that male hormones be at the height of their values while the study showed values even though they were within the normal range but not commensurate with

age. The reason for this imbalance is due to the poultry feed to forbidden purpose of fattening foods while they cause damage to the human body.

**KEYWORDS:** frozen meat, hormones imbalance, hyperprolactinemia.

## INTRODUCTION

Provided meat is President of food for man to contain important components such as proteins, carbohydrates, fats and minerals that the body needs to perform daily acts and metabolic processes.<sup>[1]</sup>

Poultry meat is one of the main sources of animal protein of higher quality because it is rich in amino acids, especially the amino acid valine and Alazuleucine and leucine and lysine, reaching acids ratio Acids in poultry meat night 92% compared to beef up nightly rate of 72% and 73% in the lamb.<sup>[2]</sup>

Cooling is a method of food preservation and conservation of fresh.<sup>[3]</sup> Generally the storage of meat depends on several factors including the type of animal, type of product and the freezing temperature and material coated frozen meat storage duration depends on the temperature of the freezer where prolonged lower storage temperature and the method of freezing of good ways to save meat so it keeps the food here assessed addition to stop most of the enzymatic and microbial agents.<sup>[4]</sup>

Hormones play an intrgral role at different stage of human development including growth, reproduction and sexual\social behavior. However, although steroid hormones or steroid-like compounds are permitted in some countries in order to increase weight gain and improve each of growth rat and efficiency of feed intake in livestock their use as growth promotant is prohibited in other countries. that, because hormones residues in meat and meat products can disrupt the natural endocrine equilibrium furthermore , any disruption of this equilibrium can result in multiple biological effects such as reduction in normal function of immunity system. Also, consumption of hormones treated meat may lead early puberty in girls, thus making them more susceptible to breast and other cancers. synthetic estrogen can also stimulate liver cell proliferation. this study was conducted, to evaluate the level of prolactin and some steroidal hormones residues in imported and native poultry meat sold in local markets and to assess the effect of some traditional home cooking methods on the level of these hormones residues in cooking residues in cooked poultry meat

The major physiological role of prolactin in women is the initiation and the maintenance of lactation, prolactin is also involved in follicular maturation and development of the ovum. In males prolactin affects gonadal function, hyperprolactinemia has been recognized as a cause of infertility problems in men and women.<sup>[5]</sup> The three etiological forms of hyperprolactinemia are iatrogenic hyperprolactinemia associated with the use of certain medications (e.g. anti-depressants, tranquilizer), primary hyperprolactinemia associated with pituitary tumors<sup>[6]</sup> and secondary hyperprolactinemia.

In the recent period a number of substances that were added to the diets of domestic animals in order to fatten and these substances are hormones, especially estrogens. For this reason, this study was designed for the following purposes:-

- 1- Study chromosomal changes for people who consume frozen meat.
- 2- Study the difference in the concentration of steroid hormones and prolactin in the frozen food imported and domestic.
- 3- Study the difference in steroid hormones and prolactin concentration in males who ate frozen meat imported and who ate local meat.

## MATERIALS AND METHODS

Blood samples were collected from 10 high school students donors. After making sure of the genetic background to them and not to have blind late or eating for drugs that affect the concentrations of hormones, so by showing that filled them form, and after that we doing the later on the samples:-

- 1- Take a sample of blood.
2. separation of the serum from the blood by centrifugation device Centrifuges
3. Serum is placed in a strip bar called the Alsterv contains 10 pits which are as follows:
  - A- sample well a room in which a sample of blood serum placed
  - B- empty wells which are Rooms 2, 3, 4.5 and is empty rooms
  - C- conjugate well and that is the room number 6
  - D- wash buffer washing rooms
  - E- substrate
- 4-A small conical tube works absorbent called SPR

SPR contain the anti-antibody where the pumping serum located in the hole first reacts the existing antigen in the serum with the antibody found in the crater 6 associated with the

enzyme Certainly not all particles interact who shall the SPR siphoning off the washing solution from a single drilling<sup>[7,8,9]</sup> and bring him back to one of the blank drilling<sup>[2,3,4,5]</sup> in order to keep the antigen & antibody only Almmeltsqan in the SPR and the process is repeated many times And we have the sixth hole Antibody +conjugate enzyme.

5. disposed of unreacted conjugate by washing solution Bhafth from one drill and then traced the empty Drilling
6. There at the last hole fluorinated material Fluorescence substrate
7. Now we have in the SPR antigen reactive with the enzyme-linked Antibody We have in the last hole fluorinated material
8. interact with components of the SPR fluorinated material which stays in the only measurement cell enzyme linked Pal substrate and then sheds flash lamp
9. According to the theory of light Mufsafar these molecules take 370 Energy and Energy sends 450 recorded by the device in the form of the results of the analysis and the analysis ends here
10. The result is shown on the screen of a computer connected to the device (the Vidas) and then print results.

### Notes

1. Contain the washing solution, as well as other factors that are conjugate to assist entering and exiting the interaction with no effect but help and interactions links
2. The substrate is a 4methylumbelliferylphosphate
3. Whenever antigen in the serum High consumes more conjugate with an enzyme associated with it
4. The enzyme is often ALP Alklein Vosvetaz
- 5- Whenever a large enzyme used whenever the consumer more substrate.

### RESULTS AND DISCUSSION

we took the matter into consideration that people selected for the study were eating chicken meat in abundance. We got the following results:-

**Table (1): Values of Hormone FSH.**

NO.	Result	Units	Women	Men
1	3.7	Mlu/m		1.7 – 12
2	1.2	Mlu/m		
3	2.3	Mlu/m		
4	1.4	Mlu/m		

5	5.2	Mlu/m		
6	2.8	Mlu/m		
7	1.5	Mlu/m		
8	0.8	Mlu/m		
9	3.7	Mlu/m		
10	2.25	Mlu/m		

Table (2) Values of Hormone LH.

NO.	Result	Units	Women	Men
1	3.8	Mlu/m		1.1 – 7
2	2.7	Mlu/m		
3	4.8	Mlu/m		
4	4.0	Mlu/m		
5	3.4	Mlu/m		
6	1.2	Mlu/m		
7	3.5	Mlu/m		
8	2.6	Mlu/m		
9	4.8	Mlu/m		
10	3.7	Mlu/m		

Table (3): Values of Hormone PROL.

NO.	Result	Units	Women	Men
1	19.4	Ng/ml	0.8 – 16	1.5 – 14
2	33.3	Ng/ml		
3	13.2	Ng/ml		
4	17.4	Ng/ml		
5	20.3	Ng/ml		
6	9.9	Ng/ml		
7	24.8	Ng/ml		
8	30.1	Ng/ml	0.8 – 16	1.5 – 14
9	41.1	Ng/ml		
10	35.6	Ng/ml		

Table (4): Values of Hormone S.PROG.

NO.	result	Units	Women	Men
1	0.5	Ng/ml		0.25 – 0.56
2	0.6	Ng/ml		
3	0.3	Ng/ml		
4	0.2	Ng/ml		

5	0.4	Ng/ml		
6	0.3	Ng/ml		
7	0.2	Ng/ml		
8	0.4	Ng/ml		
9	0.4	Ng/ml		
10	0.25	Ng/ml		

**Table (5): Values of Hormone TESTO.**

NO.	Result	Units	Women	Men
1	4.3	Ng/ml	0.3 – 3.0	3 – 10.6
2	5.2	Ng/ml		
3	7.0	Ng/ml		
4	5.9	Ng/ml		
5	3.8	Ng/ml		
6	1.6	Ng/ml		
7	5.8	Ng/ml		
8	6.3	Ng/ml		
9	5.4	Ng/ml		
10	5.8	Ng/ml		

During the past put forward markets many types of frozen poultry meat with different origins Which is almost devoid of most of the health control and including the chicken meat of all kinds of fast foods damage if Preserved or stored in a not so good conditions and that there are many microorganisms on the surface<sup>[7]</sup> and that the preparation of this Bacteria vary depending on several factors, including the extent of the Application of Sanitary conditions during storage and transport operations and trading.<sup>[8]</sup> According to a study (estimate remnants of prolactin and steroid hormones in meat local chicken and imported). As a result of the absence of health controls on foodstuffs where we found through field study Add harmful to health of chickens materials for the purpose of fattening. which leads to an increase and an imbalance in the hormonal balance in males.<sup>[9]</sup>

Also the freezing has affected badly on nutritive value in carp meat, because it leads to decrease in percent of fat, protein and moisture in meat of frozen carp and also increase in ash relativity and pH value compared with fresh carp meat, for those reasons we noticed the low of nutritive value for imported carp meat compared with local fresh carp, due to the influence of freezing them.<sup>[10]</sup>

Prolactin is hormone synthesized by the anterior lobe of the pituitary gland Prolactin is secreted in a pulsating manner (every 20 minutes) and follows a circadian rhythm with highest levels occurring during sleep.<sup>[11]</sup> Many factors control secretion of prolactin controlled by the, physiologically prolactin levels are hypothalamus, dopamine and GABA are the main the inhibitory factors, TRH(thyrotropin-releasing hormone) and VIP (vasoactive. Intestinal peptide) stimulate prolactin secretion.<sup>[5]</sup>

Exogenous factors such as physical exercise, stress, diet, hypoglycemia can cause an increase in prolactin levels.<sup>[12]</sup> The major physiological role of prolactin in women is the initiation and the maintenance of lactation, prolactin is also involved in follicular maturation and development of the ovum. In males prolactin affects gonadal function, hyperprolactinemia has been recognized as a cause of infertility problems in men and women.<sup>[5]</sup> The three etiological forms of hyperprolactinemia are iatrogenic hyperprolactinemia associated with the use of certain medications (e.g anti-depressants, tranquilizer). Primary secondary hyperprolactinemia (hyperprolactinemia associated with pituitary tumors.<sup>[6]</sup> And hypothyroidism, renal insufficiency).<sup>[13]</sup> The present study showed prolactin is increased compared with the control prolactin levels have an adverse effect on the function the testicles and can cause decreased testosterone levels or abnormal sperm indicate a condition called hyperprolactinemia and Symptoms can include decreased sex drive impotence this due to<sup>[14]</sup> this study was to induce hyperprolactinemia in adult male rats and determine its effect on the central and peripheral mediated neurogenic as well as myogenic mechanisms of erectile function use of penile reflexes in awake animals was used to test the effect of both central and peripheral mechanisms Hypogonadism does not seem to contribute to the impaired penile reflexes as documented by replacement of testosterone did not recover the centrally mediated penile reflexes. Lowered serum testosterone is secondary phenomenon. These observations may have important implications for the understanding, the mechanism and treatment of men with hyperprolactinemia as well as future research in this field. In another study<sup>[15]</sup>., as many as 100% of patients with hyperprolactinemia were impotent. The mechanism by which high serum prolactin levels cause impotence is not universally agreed upon. Interestingly the serum testosterone, level is often normal in patients with hyperprolactinemia who have impotence on presentation. Thus, in one study<sup>[16]</sup>., 7 of 17 patients with impotence and idiopathic hyperprolactinemia had, normal serum testosterone levels Furthermore.

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