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Research Article

**IMPACT OF ANDROGEN, PROGESTIN AND TIBOLONE  
THERAPY IN CONTROLLING MOOD SWINGS AND  
BETTER NOURISHMENT AMONG MENOPAUSAL WOMEN**<sup>1</sup>Dr Saleha Shahid, <sup>2</sup>Dr Bilal Mahmood, <sup>3</sup>Dr Sidra Khan<sup>1</sup>DHQ Teaching Hospital Gujranwala<sup>2</sup>Punjab Medical College Faisalabad<sup>3</sup>Services Hospital Lahore

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**Abstract:**

Knowledge about the estrogen, progesterone and androgen operations methods that the androgen receptors are constant at single place. The receptors of the androgen are constant at the intention cells like intellect and cartilage. By default, these receptors are present and contained some other cells that result in single anticipated consequences. 80 to 90% burning flashes can be lessened by using the higher amount of progestin. It also causes some adverse effects like fatness, watery preservation, and release of fluid from vagina and dryness in oral cavity. Dehydroepiandrosterone (DHEA) is an androgen consequent from adrenal glands. It acts as an initiator of the hormone that can be transformed into persuasive androgen and estrogen. It has been seen in the observation involving a smaller number of patients that it lessened vasomotor indications enhance recent male se hormone and better the presentation of cognitive. There is no androgen discovered still that can be utilized in the females suffering from menopausal syndrome. To maintain the mass of bone and improve the betterment in the sexuality Tibolone can be utilized. We can better the indications of the vasomotor, common betterment, deficiencies in cognitive, loss of mass of bone, mood swings and sexuality by these components. Total beneficial and harsh impressions are also discussed.

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**INTRODUCTION:**

Knowledge about the estrogen, progesterone and androgen operations methods that the androgen receptors are constant at single place. The receptors of the androgen are constant at the intention cells like intellect and cartilage. By default, these receptors are present and contained some other cells that result in single anticipated consequences. 80 to 90% burning flashes can be lessened by using the higher amount of progestin. It also causes some adverse effects like fatness, watery preservation, and release of fluid from vagina and dryness in oral cavity. Dehydroepiandrosterone (DHEA) is an androgen consequent from adrenal glands. It acts as an initiator of the hormone that can be transformed into persuasive androgen and estrogen. It has been seen in the observation involving a smaller number of patients that it lessened vasomotor indications enhance recent male sex hormone and better the presentation of cognitive. There is no androgen discovered still that can be utilized in the females suffering from menopausal syndrome. To maintain the mass of bone and improve the betterment in the sexuality Tibolone can be utilized. We can better the indications of the vasomotor, common betterment, deficiencies in cognitive, loss of mass of bone, mood swings and sexuality by these components. Total beneficial and harsh impressions are also discussed.

**MATERIAL AND METHODS:**

In the obstetrics and gynecology department of Services Hospital Lahore for one-year duration from May 2018 to April 2019.

**Progestin:**

Suppuration variations in the mucus membrane lining the uterus can be persuaded as a result of the utilization of steroid like provera and micronized progesterone. Burning blazes can be eliminating to about 80-90% by using the greater amount of MPA and oral megestrol acetate. Some disadvantages can also be resulted by the progesterone like fatness, pain, preservation of liquid, ejection from vagina and dryness in the oral cavity. Vasomotor indications can be lessened by using the megestrol for about 3 years on daily basis. This dose was continuously given to the patient for about two decades. The amount of the megestrol was 20-160mg which was utilized by the patients<sup>1-4</sup>. 100 mg daily consumption of micronized progestin is not so suitable in reduction of vasomotor indications. This can be linked with the tranquilizer consequences. Norethindrone and norethindrone acetate which are the derivatives of the progesterone cannot be examined extensively to know their consequence on the reduction of burning blazes. It has been examined in young females that the amount of progestin from 1.2-5 mg is necessary in the reduction of burning blazes. By using these amounts of progestin is also beneficial

in defense of loss in the weight of the bones. Some adverse affects like fatness, spots, excessive hairiness and loss of hair can be resulted in the reaction of utilization of the 19-nortestosterone imitative<sup>5</sup>.

**Dehydroepiandrosterone:**

At standard age, the evolving amounts of adrenal progestin dehydroepiandrosterone (DHEA) and its stable derivatives reduced gradually to lower amounts. This can be reduced up to 70-80%. The function of desmolase can be reduced to about 17 to 20 in the steroids. We well knew about the character of DHEA. It can be supposed as the initial stage of the hormone. Later on, it can be changed into androgen and estrogen<sup>6</sup>.

In the females suffering from stoppage old periodic cycle antibiotic management of DHEA enhanced the evolving hormones like male reproductive hormones, estradiol and estrone etc. The contribution of DHEA has been examined in small number of females. This experiment was not performed on large scale. US Food and Drug Administration (FDA) not permitted the DHEA in the 1985. Now DHEA was again supported by US Dietary Supplementation and Health and Education Act in 1994. There are many termination speeds for the arrangements achieved at physical condition groceries provisions. The levels of testosterone, estradiol and dihydrotestosterone can be increased by taking the 50 mg of DHEA on daily basis. By taking the 25 mg of DHEA daily for about a year increases the levels of androgens and estrogens which are female sexual hormone. This cannot increase the outer lining of Virginia. DHEA is found to play an important role in sensitivity, sexual attraction, lessened the indications of vasomotor, enhance the mass of bone and progress the cognitive presentation<sup>6</sup>. So, it can be concluded from the overall discussion that DHEA presents the advantages as well as disadvantages. The disadvantages can be assessed in the experiments conducted on larger scale.

**Testosterone:**

Slowly, the reduction in the level of testosterone has been noticed in the females after the stoppage of periodic cycle. These are less commonly observed in the females having the less ages. The amount to testosterone is observed to decline to about half after the therapy or after the elimination of activities of ovaries. It has been necessary to take the detach attention on the experiments assessing the consequences of testosterone contribution. Hypothalamus is the location of androgens in the brain. It plays a crucial character in the modification of the indications of the vasomotor, variations in mood and attraction towards sex<sup>8</sup>.

In testosterone deficient females it can be given to the females by various methods. These methods include by injection, in the form of tablet, sublingual and verbal methyl testosterone. The large number of 17-basic androgens causes the toxicity so its greater amount is avoided. Instead we use methyl testosterones which don't have any disadvantages. It has been easily utilized in the therapies of hormones without any side effects. Generally, we use testosterone in association with estrogen. The supplementation of mini amounts of testosterone by the way of mouth has reduced absorption, initial transformation of hepatic and different enhancement in the amounts of testosterone. We don't know about the advantages, disadvantages and characteristics of this procedure so it is not widely accepted method.

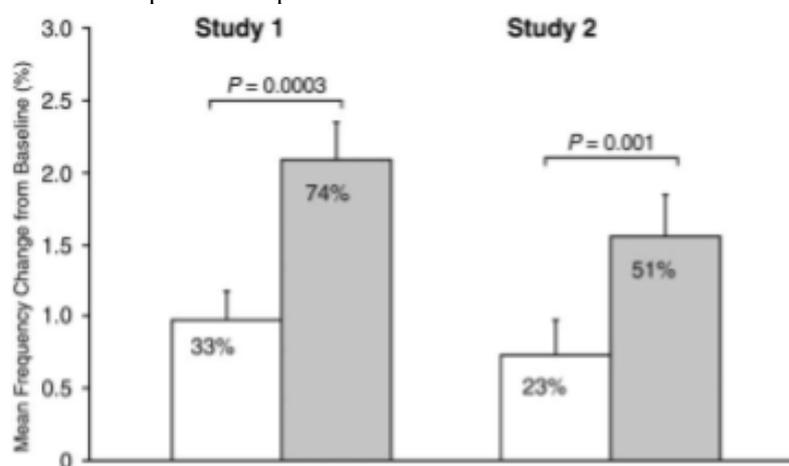
### DISCUSSION:

It has been observed by Simon and his colleagues that we can reduce the indications of vasomotor by adding the methyl testosterone into the minute amount of estrogen. It is more helpful as compared

to individual estrogen usage<sup>9</sup>. It has been reported that there is a huge difference in the comfort sexual activity and liveliness utilization in females using only testosterone and females using testosterone I combination with estradiol. Use of testosterone in association with estradiol is more helpful for females. Less high-density lipoprotein (HDL) was noticed in females cured with estrogen in combination with methyl testosterone<sup>10</sup>. There is lessening of low-density lipoprotein was noticed in females cured with just estrogen<sup>11</sup>. The level of fat was equal in both groups either cured with individual estrogen or estrogen in association with testosterone<sup>12-14</sup>.

### Figure 1:

Enhancement in the sexual function in the females underwent surgeries from initial stages to subsequent to 1 and half month of cure with either by placebo patch or with 300 micro gram transdermal testosterone patches in two experiments. Bars show the variations in the groups.



Testosterone pieces are similar to transdermal estradiol pieces both of these utilize the template management. It has been concluded by Shifren and associated that use of 150-300 microgram of transdermal testosterone daily enhances the total satisfaction and attraction towards sex in the females in which menopause has been stopped. This experiment was repeated by using the large numbers of females underwent menopause with the injection of 300 microgram pieces of testosterone. In the second experiment about 1000 females were added in the study. In these experiments it has been shown that females have more wish of sex, sexual functioning and less personal suffering subsequent to attaining the cure with testosterone for about half a year. An important panacea effect was seen in this experiment.

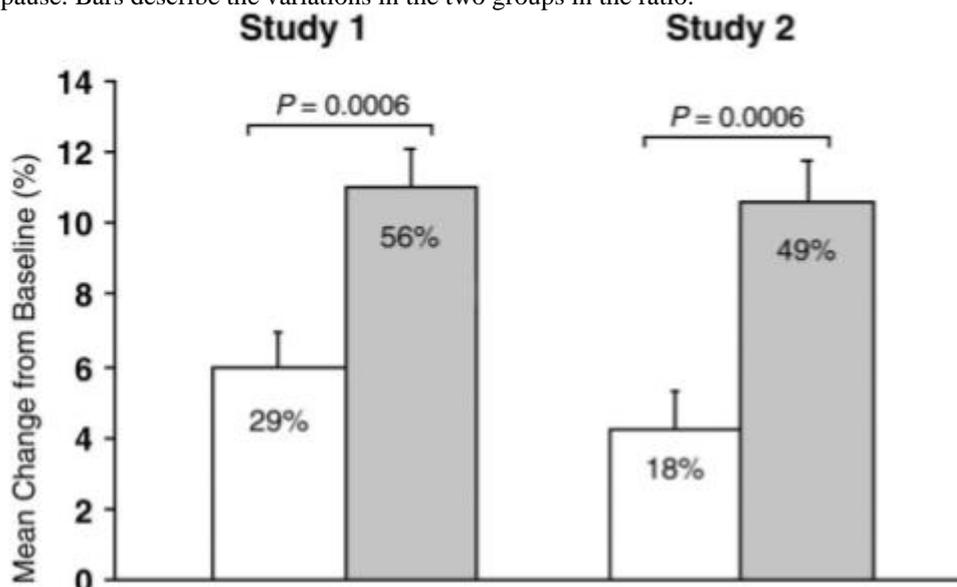
### Tibolone:

It is a kind of hormone related to steroid. It is less functional as hormone. It can be adjusted by body abruptly and can be transformed into two metabolites of estrogen. These metabolites act as receptors in estrogen. It also forms another metabolite which is called as 4-isomer. It acts as a receptor for progesterone and androgen. It is absent in America. It has been widely utilized in Europe and Canada for the cure of indications of climate. It is effective in the treatment of bone issues by

giving 2.5 mg of this hormone on daily basis to the sufferer. Many experiments were organized on this hormone and its effects on various disorders were known but now many studies are carrying out to compare the effects of its hormone with the effects of estrogen in the females. It has been suggested by the various studies that this hormone has a greater effect in the lessening of burning blazes if it is given to the patient in proper amount which is 1.25-2.5 daily. Mood swings were also developed.

**Figure 2:**

This figure graphically describes the increase in the attraction of sex towards females after the therapy of menopause. Bars describe the variations in the two groups in the ratio.



It has also been noticed that tibolone plays an effective role in the sexual activity because it also acts as androgen. This was seen in three trials. Placebo was not managed in any of these experiments. A contrast was made between tibolone and E<sub>2</sub> norethindrone acetate in an experiment. It has been noticed that half of the SHBG was lessened due to the functioning of tibolone. But on other hand the amounts of testosterone were found to enhance. It has been suggested by the recent trials that tibolone can better the level of androgen in the females suffering from the stoppage of menopause.

Information was also obtained that shows the maintenance impressions of tibolone on the bone. Another observation was conducted on random basis. In this observation patients were given the tibolone to about 0.3 mg dose daily which was gradually enhanced up to 2.5 mg. This practice was carried out for about 2 years. A secure impression of the tibolone on bone as noticed when the amount was 0.3 mg per day. And a notable enhancement in the femoral neck BMD was noticed when the dose was increased from 1.25-2.5m.

The outer layer of vagina cannot be motivated by the tibolone. As compared to panacea treatment, treatment with tibolone causes more secretion of blood from the vagina. As compared to CEE-MPA tibolone customers have less chances of gentleness in chest. Because of the properties of androgen in tibolone it is effective in reduction of level of fat in the body up to 35%. It does not have any reaction on the LDL fat.

#### SUMMARY:

Progestin is found to play an essential role in the cure of indications of vasomotor. But their character in the therapies is restricted due to the more efficiency and advantages of estrogen when it has been utilized in lower quantities. DHEA has positive effects on bone, indications of vasomotor and activity of sex. The exact mechanism of action of DHEA, its proper amount and limitations are not

well known still. There is need to done more work on DHEA. Therapies in which estrogen and testosterone are associated have many important effects on the BMD. Many pharmaceuticals experimenting on this association of therapy. To prevent the reduction of bone mass and indications of climacteric tibolone is very useful. It also has some advantages on sexual activity, fats and on chest. But these are not studying well. So, more observations and experiments are needed on the activity of tibolone.

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