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Case Report

Anastrozol and Testosterone Subcutaneous Implants As a Neoadyuvant treatment in locally Advanced Luminal Breast Cancer Patient

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Abstract

Testosterone implant therapy has also been used in female patients for menopausal symptoms since 1937 at doses of 50 to 400 mg with very good results and without any signs or symptoms of severe androgenic effects. Also, significantly higher doses (500–1800 mg) have been safely administered in the past to treat patients with breast cancer [1]. Subcutaneous testosterone implant therapy relieves symptoms of hormone deficiency in women with and without breast cancer, improves their quality of life, and maintains overall health and well-being. Testosterone does not increase and may reduce the risk of breast cancer. As has been proven Anastrozol (an aromatase inhibitor) blocks the conversion form testosterone to estradiol and from Androstenedione to estrone, thus limiting its stimulatory effect in estrogen-sensitive diseases, including breast cancer. Anastrozol therapy has been used oraly as a neoadyuvant and adyuvant treatment in patients with breast cancer in elder patients [2].

Keywords: Luminal breast cancer; testosterone implant therapy; immunohistochemistry analysis; tumor

Objective

To Evaluate effectiveness of anastrozole/testosterone pellet implants as a palliative treatment in a selected patient with luminal breast cancer T4N1Mx, Luminal B by immunohistochemistry analysis, (ER+, PR+, Her2 -, Ki 67 <20%) (Figures 1-3).

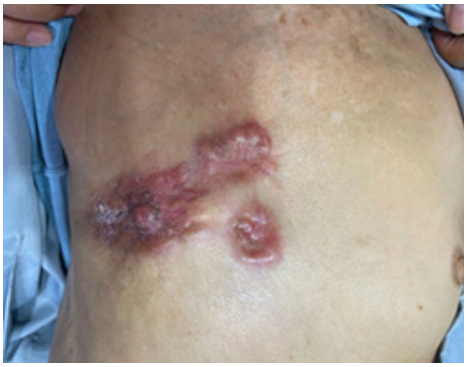

Figure 1: First Visit.

Figure 2: 1 Year Follow Up.

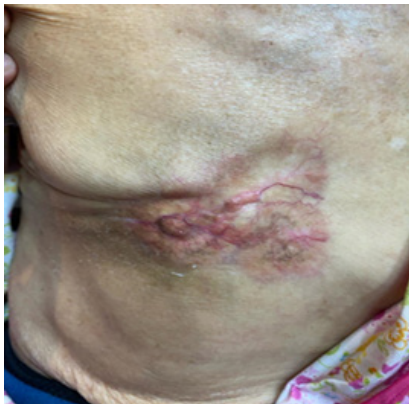

Figure 3: 2 Year Follow Up.

Case Report

A 79-year-old patient, first seen at our clinic in May 2022, with a history that a family member detected an injury on in the right breast, time of evolution was not specified. A mammogram and ultrasound were taken in May 2022, Diagnosis of a solid mass in the right breast infiltrating the skin, axillary lymph node suspicious for metastasis. BIRADS 5. Ultrasound Guided Core biopsy was performed: Histology showed a Malignant infiltrating neoplasia high – grade epithelial lesion. Physical exam: left breast without palpable lesions, right breast with palpable 10 cm. lesion, infiltrating the skin, retraction of the breast, right axillary palpable 2 cm. lymph node.

Patients and their relatives refuse conventional oncologic neoadyuvant treatment or surgery because of her age and moderate Alzheimer´s disease of the patient. We explained the possibility of Anastrozol/Testosterone subcutaneous implant. Patient and

daughter decide to go on with this modality of treatment. We started the first implant under local anesthesia in May 2022 without any complications or side effects. We administered: Testosterone from 100 mg, and Anastrozol from 8 mg and DHEA 25 mg. The second implant was applied 4 months later, slightly increasing the dose: Testosterone 125 mg, Anastrozol 24 mg, DHEA 50 mg. Third implant after 4 months with the same doses. Patient is followed up every 2 months with physical exam, hormonal blood tests and mammogram every 6 months to measure size of tumor and hormonal levels.

Results

No side effects have been reported by the patient or relatives, no evidence of androgenic effects has been observed, no significant increase in testosterone levels. Tumor size has diminished more than 70% during 2 years of treatment. Photos were taken on the first visit, at one follow up and 2 years follow up.

Conclusion

We can conclude that this modality of treatment with an Aromatase Inhibitor (AI)(anastrozole) together with Testosterone via subcutaneous implants is very effective in Luminal breast cancers and also very safe, patient did not have any side effects such as arthralgies and/or myalgies associated with oral Anastrozole [3]. The addition of Testosterone to Anastrozole does not decrease the therapeutic effect of the AI, it has a synergistic effect. Besides the clinical response on the tumor, the patient and her relatives have observed a significant improvement in the patient's cognitive status as has been mentioned in some articles about the effect of testosterone in cognitive improvement. We consider that this therapeutic option is very safe and effective in some selected cases of Luminal breast cancer patients associated with morbidities that may limit conventional oncological treatment.

References

1. Greenblatt RB, Suran RR (1949) Indications for hormonal pellets in the therapy of endocrine and gynecol disorders. Am J Obstet Gynecol 57(2): 294-301.
2. Glaser RL, Dimitrakakis C (2014) Rapid response of breast cancer to neoadjuvant intramammary testosterone-anastrozole therapy: neoadjuvant hormone therapy in breast cancer. Menopause 21(6): 673-678.
3. Leon-Ferre R, Le-Rademacher J, Terstriep S, Glaser RL, Novotni P, et.al. (2019) Abstract #1434/Poster presentation. A randomized, double-blind, placebo-controlled trial of testosterone (T) for aromatase inhibitor-induced arthralgias (AIA) in postmenopausal women: Alliance A221102. Cancer Research 79(4 Supplement): 16.