

HORMONAL IMPLANTS, BEAUTY CHIP; BENEFITS AND HARMFUL

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Abstract: The objective of this study was to discuss hormonal implants, the types used and their purposes, whether aesthetic or for gynecological use. **INTRODUCTION:** With the large increase in the use of hormonal implants in Brazil, we discuss their indications, benefits and harms. We also discussed its indiscriminate use in the market. **DEVELOPMENT:** We observed that implants are not only intended for contraception or hormone replacement, but they also work to suppress menstruation, increase libido, increase muscle mass and reduce cellulite. The increase in publicity by actresses and models, and TV and gyms increases every day (DUMIT, 2012; LOE, 2001; MAMO, 2001). Side effects can be unpredictable and serious, with the risks outweighing any possible benefits. Cases of acute myocardial infarction, thromboembolism and stroke are becoming frequent. Skin, liver, kidney, muscle complications and infections are associated with the use of implants. Psychological and psychiatric manifestations, such as anxiety, aggressiveness, dependence, withdrawal and depression are increasingly common (SBEM 2022). **METHOD:** This is a literature review, of a narrative type, which aims to describe the "BEAUTY CHIP", its indications and contraindications, benefits and harms, from a theoretical point of view, through materials that have already been published on the topic in question, through analysis and interpretation of the literature. **CONCLUSION:** We observed that hormonal implants are generally used for fertilization and the cessation of menstruation, but the side effects, or beneficial effects beyond those of medical indication, such as muscle mass gain and reduction of adipose tissue, ended up being more important for users than the initial indication. The main side effects are acne, seborrhea, and masculinization (hair growth and voice change). It is expected that

the analysis of this process will contribute to future results and research on hormonal implants.

Keywords: Implants; Hormones; benefits; harm

INTRODUCTION

In recent years, with the advancement of technology, the risks and benefits of hormone replacement have been discussed extensively. In addition to the rampant and irresponsible use of hormones for aesthetic purposes, such as anabolic steroids, and one of these subcutaneous formulations, the so-called “beauty chip”, its main component is gestrinone (mainly) which for medical purposes is used to increase libido, endometriosis, contraception, but accompanied by some aesthetic effects such as increased muscle mass, decreased adipose tissue, increased physical disposition, among others. Although used extensively today, there is no scientific basis to support its use. However, they may be associated with several negative effects, including thrombosis, AMI, SAH, atherosclerosis, medical hepatitis, acute liver failure, mental disorders, infertility, erectile dysfunction and decreased libido. The application of these implants is linked to a highly commercial bias, being sold in doctors’ offices as a “beauty chip”, menopause treatment, anti-aging, to reduce body fat, to increase libido and muscle mass. The prescription of these agents is trivialized and widespread, with free dissemination on social networks, without due ethical and scientific support from Evidence-Based Medicine. The objective of this work was to address the indications for hormonal implants and their possible side effects.

METHOD

This is a literature review, of a narrative type, which aims to describe the ‘‘BEAUTY CHIP’’, its indications and contraindications, benefits and harms, from a theoretical point of view, through materials that have already been published on the topic in question, through analysis and interpretation of the literature.

The inclusion criteria were: articles in Portuguese and English; published between 2018 and 2024 and which addressed the themes proposed for this research, review-type studies made available in full. The exclusion criteria were: duplicate articles, available in abstract form, which did not directly address the proposal studied and which did not meet the other inclusion criteria.

The review was carried out from December to January 2024, through searches in the Virtual Health Library (VHL), Latin American and Caribbean Literature in Health Sciences (LILACS) databases.), *National Institutes of Health’s Library of Medicine* (PubMed) and *Scientific Electronic Library Online* (SciELO). The following descriptors were used: “Beauty chip”, “hormones”, “benefits”, “Indications” in order to find articles relevant to the subject covered. After the selection criteria, 7 articles remained that were subjected to thorough reading for data collection. The results were presented in a descriptive way, divided into thematic categories addressing: describing the subtitles or points that were mentioned in the discussion.

RESULT AND DISCUSSION

The development of subcutaneous hormone implants presents controversies that surrounded its emergence in Brazil, and based on the work of the Bahian doctor Elsimar Coutinho in this process, we highlight the stabilization of this alternative format of hormone administration: the subcutaneous route. The name “chips” explores some

connections with the announcement of research involving the technological development of the subcutaneous route, from the current microporous silicone capsules to silicon and titanium plates, activatable via digital data networks. (MANICA, 2003).

Regarding the form of use and form of release, the technique of subcutaneous implantation and progressive release of hormones to the detriment of their technological variations, from the currently available microporous silicone capsules to the promised sealed microreservoirs, activatable by the circulation of digital data, or even the chips currently used to locate and track domestic animals.

The use of the term “chip” seems to give old subcutaneous implants a renewal that, although not (yet) real, is positive and desired as if it were (JARDIM, R. 2009)

The two versions of “chips” are interpreted as more “modern” or “technological” ways of managing fertility, the appropriation of which is subject to controversies, controversies and various conflicts (SANABRIA, 2009). The underlying idea of technological development and complexity is implicated more literally in the heralded emergence of contraceptive *microchips*. However, in both processes, the solutions found result from a project to converge individual trajectories of fertility, techno-scientific development, capitalism and population and demographic planning (PRECIADO, 2013).

We observed that implants are not only for contraception or hormone replacement purposes, but they also work to suppress menstruation, increase libido, increase muscle mass and reduce cellulite. The increase in publicity by actresses and models, and TVs and gyms increases every day (DUMIT, 2012; LOE, 2001; MAMO, 2001).

In a broader process of “medicalization”, it is possible to note at the same time the tendency

towards the creation and multiplication of “lifestyle drugs”, whose objective is not fundamentally to treat a disease, conditions considered life-threatening, health-threatening, or pathological, but improve certain body performances or appearances and treat problems that could make people’s lives difficult, such as erectile dysfunction or baldness, for example (CONRAD, 2007; DUMIT, 2012; LOE 2001; FISHMAN, 2001).

Most of the time, medication is avoided due to its contraindications. There are few cases, however, in which possible side effects end up becoming attractive and overshadowing the original purposes of the medicine. It is no different from hormonal implants – better known as “beauty chips”. They often gain space on media and social networks with statements from users who have lost weight, seen cellulite decrease and muscle mass increase, also boosting libido (MESQUITA, 2013).

“First, you deflate. Then, dry off, lose cellulite, gain muscle, your body becomes firmer and the texture of your skin is firmer”, describes model Talytha Pugliesi. She attributes the miracle to the progesterone-based implant placed three years ago. Pugliesi, 30, saw his hip measurement drop from 91 to 88 centimeters. Plus, the straw stuck under her skin saved her from menstruation (BILENKY, 2012).

The basic system for the effective functioning of the implant is that there will be a continuous administration of hormones through progressive subcutaneous release. However, there is a fundamental change in relation to the format of oral contraception, which allows monthly bleeding when periodically interrupted. The stabilization of this implant technique necessarily involved affirming the absence of bleeding, defending its obsolescence and “uselessness”, if not its pathologization (MANICA, 2011).

In a September 2015 report by the newspaper O Globo, subcutaneous implants

appear characterized as a “fashion chip” or “diet chip”. Among the experts interviewed, endocrinologist Fabiano Serfaty, who works in partnership with Elsimar Coutinho, explains that: “The implant has earned the nickname ‘fashion chip’ because it is widely used by models, due to its practicality and ability to change the body and women’s lives when indicated correctly” (RIBEIRO, 2015).

It is also important to note how the chip would enhance the user’s disposition, as it is necessary, in addition to using it, to practice physical exercise, have a balanced diet, as well as other healthy habits, thus having a greater enhancement of the effects with the use of the chip. hormone. “The implant loves training, diet and aerobics. In addition to physical exercise and nutrition, the action of hormones on cellulite, libido and muscles can be attributed to the effects of testosterone, the use of which in women is controversial.” (FERREIRA JUNIOR, 2015).

The lifestyle of implant supporters is, therefore, camouflaged in medical indications that can involve quite flexible justifications. Although pregnancy and menopause do not, in principle, constitute pathologies, contraception, hormone replacement or even the desire to regulate the menstrual cycle (one of the first indications for the pill, at the time of its emergence) can fulfill this function of providing medical legitimacy for the use of implants.

SIDE EFFECTS

We will discuss the dangers of using implants with testosterone, the main ones being the masculinization or defeminization of women, in addition to these effects, in women the risks involve the development of acne, hirsutism, hair loss, enlargement of the clitoris, deepening of the voice (irreversible), menstrual irregularity, infertility, fetal malformation, among others.

“The council does not support the use of hormone implants to improve physical appearance. This treatment only increases muscles, ‘defeminizes’ and creates hair (BILENKY, 2012).

The potential effect would come from hormones such as testosterone and gestrinone, which would be responsible for increasing women’s libido, but also for undesirable side effects, such as hair loss and changes in voice. The side effects of gestrinone are observed more in young women and reflects its androgenic action. Seborrhea, acne, hair loss, hoarseness, muscle gain, are the effects that appear most frequently, however, to reduce such side effects, spironolactone is used as an attenuator at a dose of 50 mg, twice a day (McNAMEE, D.2005).

This type of compensatory solution was considered a “technological monster”. The mode developed for the desired treatment is too complex from the user’s perspective, and this compromises the effectiveness of the technique. As we have seen, needing to compensate for the undesirable side effects of testosterone with the use of more than one medication, such as spironolactone (making a combination involving implant + daily pills) would not be as desirable a type of treatment as it would be to resolve the issues. necessary with the use of a simple pill, or an implant, whose effects did not need to be monitored, corrected or modified throughout the process. However, most of the time this solution is used (OUDSHOOM, 2003).

Voice change and hair growth are the most striking signs of gender-related body expressions. Deeper voices and hairier bodies are characteristics seen as masculine. Hair removal and reducing the visibility of hair on certain parts of the female body are an important part of the sex technologies that involve the production of female bodies. Treatments with virilizing hormones have to deal with side effects on these aspects. On

the other hand, other effects of these same hormones such as testosterone and gestrinone, for example, libido, cellulite and musculature are not as problematic by implant users. On the contrary, they are positive and publicized as complementary (and desirable) effects of the treatment, so their indication for aesthetics is often publicized and used erroneously or on purpose by doctors. (PRECIADO, 2014).

There is no dose, nor medical monitoring that guarantees safety for the use of hormones for aesthetic or performance purposes. Side effects can be unpredictable and serious, with the risks outweighing any possible benefits. Cases of acute myocardial infarction, thromboembolism and stroke are becoming frequent. Skin, liver, kidney, muscle complications and infections are associated with the use of implants. Psychological and psychiatric manifestations, such as anxiety, aggressiveness, dependence, withdrawal and depression are increasingly common (SBEM 2022).

Several educational alerts to the population and health professionals have been made by the medical societies involved and by the Federal Council of Medicine itself. 8 societies involved in the hormonal prescription scenario (SBEM, FEBRASGO, SBMEE, Brazilian Society of Urology, Brazilian Society of Cardiology, Brazilian Society of Dermatology, Brazilian Society of Geriatrics and Gerontology) are against the use of hormones for aesthetic purposes (FEBRASGO 2023).

CONCLUSION

Discussions about virilization and side effects of testosterone demonstrate the instability and the need for constant monitoring of the quantities of substances that are administered subcutaneously, with implants (and with possible chips as well). In this process, as we have seen, not only do hormones present themselves as ways of controlling fertility and bodies, but their effects are also modulated through the valorization or devaluation of certain aspects linked to gender and sexuality (fertility, menstruation, muscles, libido, hair and voice, for example) (FARO, 2016).

In addition to these effects, in women the risks involve the development of acne, hirsutism, hair loss, enlargement of the clitoris, deepening of the voice (irreversible), menstrual irregularity, infertility, fetal malformation, acute myocardial infarction, thromboembolism and stroke. brain is becoming frequent. Skin, liver, kidney, muscle complications and infections are associated with the use of implants. Psychological and psychiatric manifestations, such as anxiety, aggression, dependence, withdrawal and depression are increasingly common.

We note that there are still few studies on the topic, and we must be aware that hormonal implants do not allow dose adjustment, control of release and activity time, so the study was limited to the amount of published work on the topics and we hope If there is more to discuss in the near future.

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