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Patient scenario: a 53-year-old woman with hypoactive sexual desire disorder

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Abstract

Objective: To provide a practical review of the clinical management of hypoactive sexual desire disorder.

Method: The importance of diagnosing and providing therapeutic management for hypoactive sexual desire disorder will be explained via a case study and a literature review.

Results: Hypoactive Sexual Desire Disorder (HSDD) is highly prevalent and has a strong impact on the quality of life of both women and their partners. Medical and sexual history, physical and laboratory examinations as well as validated questionnaires on sex life will help us make an accurate diagnosis. Treatment should begin by focusing on lifestyle and psychosexual therapy. Different therapeutic options which have proven to be effective are available. Hormonal treatment with oestrogen and testosterone or with testosterone alone should be personalised, as should follow-up.

Conclusions: Guidelines for the medical management of hypoactive sexual desire disorder are now available and this starts by understanding the importance of this disorder and knowing that accurate diagnosis and treatment options exist.

Keywords: HSDD, diagnosis, medical factors, pharmacologic interventions, testosterone.

1. Introduction

Deborah: 53 year-old woman with surgical menopause for myomas 5 years ago, two children. She had been taking HRT for severe climacteric symptoms for 2 years, but she stopped 3 years ago. She was divorced but now she has a new partner. She is too embarrassed to talk about her sex life, but she feels dryness and itching and has low desire. She has a biannual mammogram and Papanicolau smear. Her last general blood test was normal. Her current problem is that she has moderate hot flushes, which cause insomnia, and she is concerned about her sex life.

2. Patient awareness of sexual function: raising patient awareness about the importance of and the implications of hypoactive sexual desire disorder (HSDD)

Question 1: Should we be familiar with managing hypoactive sexual desire disorders because:

a. Its high prevalence?
b. Its effects on partner relationship?
c. Its effects on self-esteem?
d. Its negative effects on the quality of life?
e. All of the above are correct

The incidence of hypoactive sexual desire disorder is high and there is a very broad range of prevalence data. In general, it is thought to affect approximately 20-30% of the population. Laumann et al. have indicated that sexual dysfunction is prevalent for 43% of American women between the ages of 18 and 59, decreased sexual desire being the most common disorder, affecting 32%.[1] Laumann has also found that 27% of European women suffer from sexual dysfunctions, with lack of sexual desire being the most common disorder.[2] In addition, he indicated age as one of the main factors associated with sexual difficulties. Dennerstein et al. reached similar findings with the "Women's

International Sexuality and Health Survey" (WISHeS), a mail survey involving 1,356 women between the ages of 20 and 70 from Germany, the United Kingdom, France and Italy, with a partner and surgical menopause. From this survey it was concluded that 29% of women suffer from this dysfunction.[3]

Surgical menopause has also been associated with a higher incidence of desire disorders than natural menopause.[3,4] Disorders occur in 9% with natural menopause and in 26% of women who undergo surgical menopause at a young age. Disorders of this kind are significantly more frequent among surgically menopausal women between the ages of 20 and 49 than among premenopausal women in the same age range. Nonetheless, there were no significant differences in prevalence between surgical menopause and natural menopause for the 50-70 age group.[5]

Dysfunction can have a negative impact on personal well-being as well as on relationship with partner. More than 50% of women with lack of sexual interest think that they are less feminine, feel more insecure or think that they are disappointing their partner.[3] Moreover, the impact of sexual dysfunction on the quality of life is very important and affects physical and emotional satisfaction as well as general happiness.[1]

3. Questions and answers

3.1. An appropriate HSDD diagnosis

Question 2: What kind of diagnostic evaluation would you carry out for Deborah?

a. Medical and sexual history
b. Physical examination
c. Laboratory testing
d. Validated questionnaires about sex life
e. All of the above

It is important to have a global vision regarding the approach taken when diagnosing female sexual disorders.[6,7] Sexual history has no significance on its own if it is not considered within the framework of overall medical history. Human beings are conditioned by their system of sexual values. This system directly reflects the power of their psycho-social environment.[8]

Chronology in data collection is key in the diagnostic approach. The clinical diagnosis of any of the subtypes of female sexual disorders should consider the following information[9]:

1. An assessment of past and present sexual desire, arousal, orgasm and pain
2. Onset of symptom or symptoms (gradual, rapid)
3. Duration (lifelong, acquired), intensity and level of concern
4. Context of problem (generalised, specific)
5. Diseases and drugs
6. Degree of impact on sexual partner
7. Expectations of changes sought
8. Assessment of the changes that can be dealt with (personal resources, the health of the individual and her partner as well as that of their relationship, etc.)

Inspection of the external genitalia, examination of the abdomen, and bimanual or speculum examinations can aid in identifying causal signs of certain medical or anatomical conditions which can be involved in some types of sexual problems, such as pain (narrowness of the vaginal introitus, signs of genital atrophy, etc.), or urinary incontinence.[10]

Carrying out routine blood tests (haemogram, serum iron test, routine blood chemistry screen) and hormone tests (TSH, free T4, etc.) will help to rule out medical conditions that can affect sexual function (anaemia, hypothyroidism, etc.).

Determining androgen levels is not a parameter necessary for diagnosis due to the fact that there is no direct correlation between its levels in the blood and HSDD. However, low levels of testosterone are associated with hypoactive sexual desire disorder.[11] The free androgen index measured by equilibrium dialysis is the most reliable way of measuring testosterone levels, even though reliability is limited at the lowest end of the concentration range.[12]

Currently, the diagnosis of HSDD follows self-completion of standardised validated questionnaires. The mere absence of sexual desire cannot be considered a disease. In order for a sexual dysfunction or disorder to be present, there must be an absence of or progressive or abrupt decrease in sexual desire, accompanied by concern, distress and/or suffering.

We recommend two validated questionnaires:
a. B-PFSF (The Brief Profile of Female Sexual Function)[13]
b. FSDS (The Female Sexual Distress Scale)[14]

These questionnaires have the following attributes:
- They are designed for women who experience low sexual desire
- They assess levels of concern and distress
- They ask questions about sexual feelings, sexual activity and level of interest in sex during the past 2-3 months
- They are self-administered
- They help women decide whether or not to consult a physician

Therefore, Deborah should have decreased sexual desire that causes her distress in order to be diagnosed with HSDD.

3.2 Medical factors

Question 3: All physicians should know:

a. How to choose the best drug which causes minimal or no sexual dysfunction
b. That there are general disease which affect sexuality
c. That certain drugs worsen sexual disorders
d. That alcohol and drug of abuse are risk factors for sexual disorders
e. That all of the above will help establish a strategy to improve female sexuality

Both acute and chronic medical diseases are a common direct or indirect source of sexual difficulties. These disease, as well as some of the drugs used for their treatment, are also involved in decreased sexual interest. They can interfere with endocrine, neural and vascular processes that mediate the physiological sexual response. In addition, they can cause physical discomfort or increase psychological barriers to sexuality, be it because of negative body image or changes in self-esteem.[15]

Potential causes includes a wide range of medical and/or organic risk factors associated with sexual dysfunction, common to both men and women. More and more, sexual dysfunction is considered to often be a product of psychological changes or a consequence of disease processes.

Also, different drugs used to treat these diseases, as well as self-medication, can negatively affect sexuality. In addition, aggressive treatment for long-term illnesses, minor ailments or underlying changes can reverse dysfunction, improving sexuality, as occurs with kidney transplants for renal failure. Being aware of these factors and of how to manage them, as well as changing or modifying drug regimens and doses, can help to reduce sexual problems.

Choosing which drugs to use, both when changing medication and prescribing a new treatment, should be done by taking into account sexual dysfunction and the patient's desire to improve her sexual activity. It is necessary to ask a patient about sexuality and, depending on her age and other factors, prescribe the treatment required to control her pathology, following-up on its effects on sexuality and then, if necessary, taking whatever steps are needed to minimize or eliminate those effects.

3.3. Lifestyle and psychosexual therapy

Question 4: As an integral part of treatment, before starting on a pharmacological option, it is always necessary to follow basic counselling on sexuality, including:

a. Give the patient the chance to talk about her sexuality
b. Listen actively to her emotions, questions and concerns
c. Provide information about the reality of human sexuality
d. Clear up misconceptions about male and female sexuality
e. All of the above should be done

One of the fundamental characteristics of basic sexual counselling is providing information, answering questions and addressing concerns relating to the life cycle. Sex education is taught in school, where adolescents now receive sex education before the age of 14. Nonetheless, the task of educating is strongly associated with health. Therefore, physicians, as health care specialists, carry out informative and educational functions in their surgeries because sexuality changes according to age and the reproductive cycle.

The different types of information are as follows:

a) In view of questions and concerns regarding changes in desire that come with age (of a woman and her partner):
   - Misconceptions and false beliefs about menopause and climacteric
   - Changes associated with menopause concerning: physiology, anatomy, psychology and difficulty adapting to these changes, a woman's expectations in view of a new stage in her life
   - Misconceptions about male and female sexuality

b) In view of questions and concerns relating to anatomical changes after a particular condition:
   - Questions and concerns relating to chronic disease

     Regarding the consequences of chronic disease, coronary heart disease, hypertension, diabetes, obesity and being overweight, rheumatoid arthritis, renal failure, genitourinary disease, neurological disease and the connection to sexual health:
   - Questions and concerns relating to surgical menopause

     Regarding surgical treatments, cancer (ovarian, breast), hysterectomy and the effects on sexuality:
   - Questions and concerns relating to drugs and their influence on sexual functioning
   - Questions and concerns relating to hormone replacement therapy (HRT) and its influence on desire and sexual arousal

Giving basic sexual advice or counselling is a way to deal with a female patient's sexual problems. This approach lies somewhere in between educating and providing therapy to that patient. Counselling dates back to the 40s in the United States and was used to develop a new form of therapy, moving away from the typical psychoanalytical approach that was so in style at the time and away from the behaviour therapy that was also deeply rooted among Americans.

Basic sexual counselling is a part of a medical consultation where the physician's role is to listen actively to the patient and encourage her to speak about her sexual concerns and problems. It is principally characterised by:
- The clinical subject as a person, not only a concern or problem
- An intervention strategy is also mediated by feelings and affection, making good communication between a patient and her physician necessary
- The key lies in the fact that more importance is placed on the patient's current situation rather than on her past
- Advice needs to be brief, clear and simple, aiming to reduce anxiety and calm the patient

A series of questions should be asked before beginning any type of treatment:
- What should change?
- What should stay as it is?
- Does it involve a significant change?
- Are there any problems linked to these changes?
- Does the patient believe that her sexuality can change?

There are different degrees of intervention:
- Education and body care: carrying out a series of exercises
- Specialized psychosexual therapy:
  - Cognitive-behavioural therapy: individual thoughts, feelings and behaviour need to be the focus so that the patient is aware of irrational beliefs and dysfunctional thoughts. In this way, she can deal with necessary changes in order to improve her sexual health and personal well-being
  - Focal psychodynamic therapy: there needs to be focus on exploring the "individual sexual role" and on the conflict and its resolution
  - Partner therapy: communication training: basic understanding of the levels of human communication
  - Psychodynamic therapy: discuss and attempt to resolve unconscious conflicts that are hindering sexual intimacy

3.4. Pharmacological interventions

Question 5: Considering that Deborah is a 5-year menopause patient with moderate hot flushes, vaginal dryness and HSDD, what would you prescribe?

a. Local oestrogens
b. Systemic oestrogens only
c. Oestrogens and androgens
d. Androgens only
e. No treatment

For the past 70 years, androgenic treatments have been prescribed for female sexual dysfunction, although more recently, both low oral and low transdermal doses of testosterone have been studied in clinical trials.

Oral testosterone: Recently, a randomised study was carried out on 218 postmenopausal patients, including both naturally and surgically menopausal women. They received 0.625 mg/24 hours of esterified oestrogens and 1.25 mg of methyltestosterone which improved their sexual interest and desire.[16] The two big unknowns in this study are whether, on the one hand, naturally menopausal women received oestrogens and androgens, but not gestagens, and on the other, oral methyltestosterone reduced HDL cholesterol levels.

Transdermal testosterone: There are currently six randomised placebo-controlled studies (two studies in Phase II and four in Phase III). In four of the studies, all patients were surgically menopausal and the efficacy and safety of a 300 mcg/24 hours testosterone transdermal patch was analysed in patients with.[17-20] All patients were receiving oestrogen therapy. In summary, the patients on testosterone reported satisfying sexual activity 1.9 times per month; almost double in comparison to the baseline, i.e. before the treatment, and clearly above the 0.9 in the placebo group. The varied results obtained from the questionnaires that were used indicate a significant increase in sexual desire and sexual response. In three of the four studies there was a significant decrease in the questionnaire reflecting concern over sexual dysfunction.[18]
Subsequently, the efficacy and safety of the testosterone patch for the treatment of HSDD in naturally menopausal women on oestrogens was analysed.[21] The results were similar to those obtained in surgically menopausal women. It was concluded that short-term treatment with a 300 mcg/24 hours testosterone patch for these women was well tolerated and significantly improved sexual activity and sexual desire while decreasing distress when compared with placebo.
A study reporting the effects of the transdermal testosterone patch on women with HSDD not receiving oestrogen therapy has recently been published.[22] The findings indicate that 300 mcg/24 hours of testosterone increased satisfying sexual episodes by 2.1 eisodes/4 weeks, compared with 0.7 for placebo ($p>0.001$). These women also experienced an increase in hair growth compared with placebo (30% vs 23.1%).
The product's safety data have been assessed in clinical trials ranging from 6 months to a year. It would also be beneficial to collect data for periods longer than a year, especially taking into account that the prolonged use of testosterone could increase insulin resistance and therefore predispose patients to metabolic syndrome.[23]

3.5. Treatment and follow-up

Question 6: When should a patient who has received oestrogen and androgen therapy be reassessed?

a. After one week
b. After one month
c. After 3 to 6 months
d. After one year
e. After 2 years

Patient follow-up is necessary to check treatment efficacy and note side effects. When to schedule a follow-up appointment after treatment has begun will depend on the treatment itself and on the medical history of the patient. Technically speaking, follow-ups are determined on a case-to-case basis. In general, it is reasonable to schedule a second appointment after 3 to 6 months. The principle of the lowest dose possible during the shortest amount of time still holds. A risk-benefit analysis of the treatment prescribed as well as whether or not to continue the treatment, add adjuvant therapy or change therapeutic strategy should characterise all appointments.

4. Discussion

Deborah's case allows us to review hypoactive sexual desire in a brief and practical manner. In the first question, we wanted to stress the high prevalence of this disorder and the implications it has for the quality of life of the patient and her partner (correct response to question 1: e).

In the second question, we brought up the need for a correct diagnosis and we insisted on the importance of thorough medical and sexual history as well as a thorough clinical examination. Blood tests are needed to carry out a differential diagnosis and rule out other diseases that can cause an hypoactive sexual desire disorder. The validated questionnaires on sex life will be what lead to a definitive diagnosis. It is important to remember that to diagnose HSDD there must be clear distress as a result of the situation (correct response to question 2: e).

In question 3 (correct response: e), we recalled the importance of knowing what disease, addictions and medications are associated with HSDD.

Subsequently, in question 4, we indicated the importance of listening to patients first and then providing them with information and answering their questions. Even though we are all clear on this point, perhaps in medical practice and due to time restraints this area is frankly neglected and we should all make an effort to change this (correct response to question 4: e).

The following two questions (5 and 6) are directed at choosing a treatment, if it were necessary, and at treatment follow-up. In our case, Deborah had symptoms typical of hypoestrogenism (hot flushes, vaginal atrophy) and hypoactive sexual desire disorder symptoms, i.e. low sexual desire which caused her distress. In these cases, a combination of oestrogen and androgen therapy has proved to be effective (correct response to question 5: c).

As for follow-up, guidelines are characterised by patient personalisation. However, from experience with HRT, it would seem logical to think that 3 to 6 months after the start of hormone treatment, an evaluation of efficacy and side effects should be carried out in order to then decide whether or not to continue the treatment (correct response to question 6: c).

In short, Deborah is a patient with a problem that affects her quality of life and we can help her by making an accurate diagnosis and providing treatment options that have been proven to be effective.

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