

... Not only a sexuological problem

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Summary

Partner sexual dysfunctions, for example impotence or erectile dysfunction (ED) are also problems in gynecological praxis. ED can be troubling, even devastating to a man, but it can be equally for his partner as well; this is one of many sexuological problems in gynecological praxis. It really undermines a relationship, can say gynecological patients during anamnesis. Erectile dysfunction (ED) can really affect women's self-esteem. The causes of ED have been analysed, taking into account the division into psychogenic and somatic factors. Among somatic causes, special attention has been devoted to endocrinopathy, including its relatively rare cause, namely Addison's disease, also known as hypoadrenalism. It was emphasised that the causes of ED are usually complex, often with both somatic and psychogenic components.

Key words: Sexual dysfunction; Erectile dysfunction; Gynecology.

Introduction

According to the literature data, 20-30% of men have various types of sexual dysfunctions, with particular emphasis placed on erectile dysfunction (ED). Man's consistent or recurring inability to get and/or maintain an erection sufficient to have satisfactory sex is one of the most important sexual problems. ED manifests itself by the absence of or insufficient stiffening of the penis, which prevents sexual intercourse. It should be emphasised that this is a partner problem – although it directly affects men, it also affects women who are partners of the of men with these disorders. ED sometimes has very serious consequences: feeling guilty for being unable to satisfy one's partner, decreased self-esteem, depression, conflict between partners or even a divorce, suicide attempts, communication problems between partners (a man often does not want to admit to his problem, avoids sexual contact, a woman may feel rejected and think her partner no longer loves her or "has another woman"), irritation, problems with contacts with other people, and sometimes social isolation of the representatives of the sterner sex [1-3].

According to Stanley E. Althof, people have always placed great emphasis on sexual potency; there are famous treaties, descriptions of rituals, folk medicine, and sexual guides of ancient Greek, Chinese, and Hindu doctors, as well as Islamic and Jewish scholars [4].

There are two types of ED which are primary and secondary. Primary ED is a chronic sexual dysfunction in men who have never reached potency with any woman. Secondary ED is lighter in form and occurs after a period of

normal sexual functioning. In addition to the simple division into primary and secondary ED, the following situations should be noted, which include: no erection at all, only partial erection of the penis, erection occurs only in unexpected sexual contacts, and erection occurring during foreplay, but disappears or reduces during attempts to commence sexual intercourse.

There can be many causes of ED and they can result from psychogenic as well as somatic factors. Often times ED stems from co-occurrence of factors.

The characteristic features of typically psychogenic ED are the sudden onset of symptoms and the persistence of night erections, which indicates that physiological and anatomic erection mechanisms are preserved.

The causes of psychogenic ED include: excessive stress and anxiety, e.g. loss of a job, depression, fear of sexual failure, problems in a relationship (they do not have to refer to the sexual sphere, they can be family or financial issues), man's inability to fully appreciate his own erotic experiences, fear of being abandoned by one's partner, low self-assessment with respect to sexual predispositions, constant pressure and recurring sexual demands from women, lack of or poor sexual education, pathological family environment, strict upbringing, traumas from childhood, excessive religious rigor, and crisis of masculinity.

The causes of somatic ED include: primary anomalies of the male genitals (e.g. hypospadias or phimosis), secondary anomalies in the male genitals (e.g. traumatic or postoperative), inflammatory diseases of the male genitals (e.g. inflammation of the glans), weakening systemic diseases,

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problems with the liver, neurological diseases: multiple sclerosis or certain types of cancer, spinal cord injury, meningitis), stimulants (drugs, alcohol, cigarettes), cardiovascular and circulatory system diseases (heart failure, atherosclerosis, elevated cholesterol), taking certain psychotropic, anti-hypertensive, diuretic, anti-Parkinson medication, or anti-cancer drugs, use of steroid doping agents), and endocrinopathies. The most common endocrine causes of ED include hypogonadism, diabetes, thyroid disease (both hyperthyroidism and hypothyroidism), and prolactin-secreting tumors [2-6].

Hypogonadism as a defect of gonads can occur at different stages of life – fetal, prepubescent, post-pubescent, and andropause; in men, it is the cause of sexual dysfunction, including ED. In such situations, hormonal treatment is necessary, which is increasingly common and widely used and accepted. It is stressed that the long-term deficiency of male sex hormones in various forms of hypogonadism does not only lowers the quality of life but also evidently reduces its span.

Prolactin plays a major role in male sexual life. The characteristics of the hormone mechanisms have not been thoroughly defined and require further research. It has been found that hyperprolactinemia lowers testosterone levels in men. It has been shown that particularly severe hyperprolactinemia, often associated with pituitary tumor, has a negative effect on sexual functions, impaired sex drive, and testosterone production. It is due to insufficient concentration of this hormone that erectile problems occur.

There is evidence that hyperthyroidism is associated with and responsible for an increased risk of premature ejaculation and may be related to ED. Hypothyroidism, on the other hand, largely affects sexual drive and impairs ejaculation. However, the real frequency of thyroid dysfunction in patients with sexual dysfunction requires careful analyses [2, 6]. Thyroid hormone disorders – both excessive and deficiency of the hormone – are among the causes of sexual dysfunction.

There are also observations about the sexual sphere of people with acromegaly. The prevalence of ED and decreased libido is typical in patients with acromegaly; however, it is still disputed whether excess growth hormone can produce such effect due to direct overproduction of growth hormone / insulin-like growth factor, or because of the pituitary effect on gonadotropin cells, leading to hypopituitarism.

Although dehydroepiandrosterone (DHEA) and its sulphates have been used in a wide range of biological disorders, controlled studies have indicated that DHEA does not help in improving sexual functions. When analysing somatic disorders which impair erection, one should mention Althof, who cites the views of Acerman and Carey, namely that the cases of purely mental or purely organic erection problems are quite rare [4]. One should emphasise that the present factors mentioned may but do not have to cause po-

tential problems (each case is different and need to be considered individually). According to Althof, erectile dysfunction may fulfil various functions, e.g. cover up problems related to sexual preferences, homosexual tendencies, lack of lust for a partner, or even gender identity problems [4].

Many authors have attempted to assess the impact of specific factors on the risk of occurrence of ED. They reported an increase in the incidence of ED in patients with other concomitant conditions, such as diabetes: 4-fold, hypertension: 1.58-fold, hypercholesterolemia: 1.63-fold, peripheral artery disease: 2.63-fold, and heart disease: 1.79-fold. There is also a strong relation between ED and taking drugs affecting the nervous system and sleep-inducing drugs, respectively; ED is more frequent by 2.78- and 4.27-fold, as well as smoking and alcohol consumption, respectively; ED is more frequent by 2.5- and 1.53-fold. A factor the role of which was consistently mentioned in all studies, drawing similar conclusions about the increased risk of ED, was age. This is related, among others, to the increase in the number of risk factors along with the aging of the body and oftentimes the impact of these factors on the cardiovascular system. Increased age-related ED may also be due to partial androgen dehydration in aging male (PADAM). When analysing the effect that cardiovascular risk factors have on ED, it is impossible not to mention the significance of individual predispositions related to the presented personality model in the first and the second condition [3-6].

As it has already been mentioned that diabetes plays a special role among somatic ED factors. It should be stressed that all stages of sexual dysfunction, especially the phase of orgasm, in both men and women are impaired in diabetes. Diabetes is a result of abnormal glucose metabolism, which is one of the most common endocrinopathies. Diabetes causes increased glucose levels and glycaemia of many substances that regulate intestinal homeostasis. As a result, many organ disorders and sexual dysfunction have been identified, with particular emphasis placed on the impairment of erectile function. As a result of diabetes, vascular changes occur in the cavernous bodies of the penis. There is a decline in production and impairment of nitric oxide activity, overexpression of growth factors (VEGF), and endothelin 1 (related mainly to the action of glycation end products – AGE). These processes lead to impairment of the vascular endothelial function. At the same time, autonomous fibre neuropathy occurs in the tissues of cavernous bodies, which, in conjunction with hormonal imbalances with decreased androgen levels, aggravate ED. As it is emphasised, the somatic component is usually accompanied by the psychogenic component of the ED [5, 6]. Males experience depressed mood, have lower libido, give up on proper approach to fight the underlying disease (diabetes), thus a vicious circle is formed.

A special type of endocrinopathy resulting in ED function

is primary adrenal insufficiency, namely Addison's disease. It is a rare disease, which affects about 0.04% of adults. It usually manifests itself in the third or fourth decades of life, more often in women than in men. The disease is caused by other autoimmune diseases, tuberculosis, cancer, and some infectious diseases. The occurrence of the disease may be due to the presence of HLA B8 and DR3 serotypes [2, 7, 8]. The most common symptoms of the disease, otherwise known as hypoadrenalism, are constant weakness, including lower libido, muscle fatigue, weight loss, lack of appetite, and penchant for salty foods. The symptoms can present after infections, traumas and stressful situations. Other characteristic symptoms include tanning of the skin, low blood pressure. Hyperkalemia and hyponatremia can be expected in laboratory tests. Sexual dysfunction in Addison's autoimmune disease is associated with deficiency of glucocorticoids and mineralocorticoids [2, 7].

There are studies that aim to evaluate the sexuality and related psychological problems in men with Addison's disease before and after mineralocorticoid glyocorticoid replacement therapy. It has been shown that cortisol and aldosterone deficiency appear to play an important role in the development of ED, although the mechanism of this action is not fully explained [7, 8]. Sexual dysfunction in men with Addison's disease is not only related to hypopituitarism but also to other endocrine disorders.

There is evidence that supplemental DHEA therapy in men with Addison's disease does not determine sexual function, erection, fatigue or cognitive function compared to placebo.

Studies have shown that patients with Addison's disease using conventional replacement therapy have a lower quality of life. The average dose of GKS-hydrocortisone supplement is 22.5 mg/d. Despite doses recommended by the health service, the quality of life is significantly reduced in patients with Addison's disease when compared to the general population [2, 7, 8].

ED, after somatic or/and psychogenic factors, can be troubling, even devastating, to a man, but it can be equally so for women - his partner. "It really undermines a relationship", is often stated by gynecological patients during anamnesis. ED can really affect women's self-esteem (partner's problem) and is also one of many sexual aspects in gynecology [9].

Conclusions

This review of the causes of sexual dysfunction in men, with a particular focus on ED, indicates that these are not just sexual issues, but they also have a number of endocrine and psychosomatic determinants. ED can be troubling, even devastating, to a man, but it can be equally so for his partner as well; this is one of many sexual problems in gynecological praxis.

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