Erectile Dysfunction as Public Health Problem

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SUMMARY
Erectile dysfunctions represent the inability to achieve and/or maintain erection necessary for satisfactory sexual activity. During the past two decades from the disorder marked as impotence and perceived as a psychological problem, the concept evolved to erectile dysfunction, which is actually the result of multiple risk factors, organic and psychological, and manifested with inadequate penile erection. Etiology Erectile dysfunction is very often multifactorial, which makes it difficult to make a clear overview of causes of erectile dysfunction. Official classification of etiology factors is the following (1): a) organic; b) psychogenic; c) mixed (organic and psychogenic); d) unknown. We have evaluated erectile dysfunction as a public health problem in Bosnia and Herzegovina also etiology, pathogenesis, diagnosis and therapeutic solutions. Research includes a group of 90 patients, of whom 60 in experimental and 30 in control group. Group A consists of 30 patients with erectile dysfunction, who were treated with intracavernous injection prostaglandins. Group B consists of 30 patients with Erectile Dysfunction, who were treated using the system vasoactive substances—tbi Sildenafil citrate (Levitra). The control group consisted of 30 patients with erectile dysfunction with psychogenic etiology and was treated with Sildenafil citrate. Erectile dysfunction is important problem of public health and deserves support of basic sciences researchers.

Key words: Erectile dysfunction, etiology, pathogenesis, diagnosis, public health problem.

1. INTRODUCTION
Erectile dysfunctions represent the inability to achieve and/or maintain erection necessary for satisfactory sexual activity. Everyday practice brings in urology clinic patients with differently expressed conditions of erectile disorders. The number of such patients is becoming a bigger and already is such that becomes a real medical problem. Resolving this problem is the actual human need. Achievements of civilization, “accelerated” pace of life, various stressful situations, more and more patients with cardiovascular diseases, then the trauma, urologic diseases and a range of risk–factors lead to the appearance of erectile disorders in men of different age, occupation and living habits.

Previous organization of health services, simply “avoided” these problems in human health. Patient wonders from the neuropsychiatrists, urologist, gynecologists, internal diseases specialists, vascular surgeons ..., looking for a solution of their problems. In our climate, there are virtually no specialists or sub-specialists for this field.

During the past two decades from the disorder marked as impotence and perceived as a psychological problem, the concept evolved to erectile dysfunction, which is actually the result of multiple risk factors, organic and psychological, and manifested with inadequate penile erection (1,2,3,4,5).

Early studies from seventies suggested psychogenic etiology of the erectile dysfunction (1), while 80’ and 90’ passed the new, revolutionary knowledge about organic etiology factors (4).

The term impotence is replaced with term erectile dysfunction in 1992, and by definition of the U.S. National Health Institute, it is the inability of achieving and maintaining sufficient erection for penetration. Introducing effective, non-invasive therapy for erectile disorders, this field experienced a revolution, and also increased the number of patients and interest for the resolution of this problem.

Pharmacology is now offering medications that are essentially vasoactive substances that can be used in the treatment of erectile dysfunction (1,2,3). Main effect of these substances is on the penile blood vessels, mechanism of this action, therapeutic doses, the effects of the usual dose, are not, at least in the literature available to us completely unbiased.

Medical doctrine so far did not give appropriate place to urology in resolution of the organic erectile dysfunction. It is completely natural to urologist to treat this.

2. ETIOLOGY, PATHOGENESIS, DIAGNOSIS AND TREATMENT OF ERECTILE DISORDERS
Etiology Erectile dysfunction is very often multifactorial, which makes it difficult to make a clear overview of causes of erectile dysfunction. Official classification of etiology factors is the following (1): a) organic; b) psychogenic; c) mixed (organic and psychogenic); d) unknown. In most cases, the causes are mixed, or clinical features represent combination of organic or physical and psychogenic factors, because the lack of erection or inadequate erection in males leads in the delicate situation with mental suffering. Organic Erectile problems have different causes as listed by many experts (according to the data: Bureau of Health Statistics, American Diabetes Association, National Cancer
Psychogenic cause exists as isolated factor in the emergence of erectile dysfunction. This type of problem usually occurs as a result of stress at work, because of marriage problems and disagreements with the partner or financial and other difficulties. On the sexual life, also badly influence depression syndrome (1).

It also should be pointed out that every man has a period in life, in which erection is not like he wanted. This is part of the normal life cycle and does not require any therapy.

In relation to the onset time and duration, erectile dysfunction is evaluated as:
- **A** – Primary
- **B** – Secondary

*Primary erectile dysfunction* is in fact erectile disorder that occurs from childhood to puberty. In non selected population of men below 25 years of age, according to available reports, prevalence of primary erectile dysfunction is 0.5% (1). Common causes of primary erectile dysfunction are arterial and venous malformations (1). *Secondary erectile dysfunction* occurs in men who have previously had normal erectile function. Previous chart indicates the organic causes of erectile dysfunction, which have is significant in the group of secondary erectile dysfunction.

### 3. Medication as a Cause of Erectile Dysfunction

Prescribing, use, especially the abuse of medications, the introduction of new drugs with insufficiently known effects through a longer period of time are phenomena which also includes the major causes of erectile disorders. Here, special emphasis should be put to use of drugs without consultation with a physician, as well as the increasing availability of medicines.

Likewise, as an individual medication can induce erectile dysfunction. It can be a side effect of specific therapy. Also, to erectile disorders can lead mutual, additive action of drugs. This situation is relatively more often among older men who take in parallel more types of drugs, which can lead to the emergence of partial or complete erectile dysfunction (1).

Some drugs affect the libido or erectile function, while another influence on ejaculation. It is very important to emphasize that the medicines which in free sale (without prescriptions), such as antihistaminic or decongestants can disrupt erectile function. Most psychotropic drugs directly influence erectile function through the increase prolactine or decrease of testosterone. In some patients, antidepressants may lead to dysfunction, and in case of some depressive patients, may lead to improvement of libido (1,3).

Antihypertensive drugs affect the decrease of systolic blood pressure, but lead to the decrease of intracavernous, penile pressure. This effect is especially true in patients suffering from diabetes and arterial hypertension who already have micro vascular changes (Ketoconazol, aminoglutethimides and similar drugs directly reduce production of testosterone). Most “early” antihypertensives, such as reserpin, guanethidin and hydralazin cause sexual dysfunction. Some ß-adrenergic blockers also have a bad influence on erectile function. Blockade of peripheral androgen receptors, may be caused by spironolacton, cimetidin, flutamid and cyproteron-acetate. Especially we should emphasize the role of cimetidin who purchased without a prescription, as well as a number of other H-2 receptors antagonists. Drugs that can raise the level of prolactine are methyldopa, spironolacton, digoxin, metoclopramid and many psychotropic agents.

### 4. Smoking, Alcohol and Other Addictions as a Risk Factors for Erectile Dysfunction

During evaluation of etiology factors which have influence on the emergence of some form of erectile dysfunction, leads to a very significant data on the role of nicotine, or smoking in the emergence of erectile disorders. Smoking causes the narrowing of the blood vessels which as consequence leads to poorer blood supply to the penis with blood (1). Studies indicate that more than 80% of men with erectile dysfunction current or former smokers. Effect of smoking on erectile function depends on the amount of smoked cigarettes, which is relative intake amount of nicotine. Effect depends on the length and duration smoking habits. Erectile dysfunction is more than two times more frequent among the “heavy” smokers in relation to the non-smokers (1).

Alcoholic beverages have a very long history in human
civilization, and many people believe that alcohol increases their sexual response. This is partly correct, because alcohol act in terms of release of inhibition, that lowers sexual inhibition that people can have, and strengthen sexual desire. On the other hand, typically is easier to establish contact with the consumption alcohol, and strengthens sexual desire. On the other hand, typically is easier to establish contact with the consumption alcohol drinks, and very widely spread belief that the sexual experience with alcohol is much deeper and more intensive. Alcohol is depressant of central nervous system and hinders physical sexual response, including erection and ability to achieve orgasm. Excessive consumption of alcohol lead to sexual dysfunction according to erectile disorders type, either as a direct effect on penile neurovascular system, or causing an increase or decrease of prolactine and testosterone (or both). Regarding the use of drugs: heroin, morphine, LSD, cocaine, marijuana, amfetemines and other "recreational" means, and addiction disorders that result from their use and destruction of health directly influence sexual function. Initial effects in terms of improving mood, release of inhibition and sexual stimulation after variable amount of time, depending which is the type of dependence and how it leads to leads in Erectile disorder and impotence (1).

Risk factors for the emergence of erectile dysfunction are also, way of life and habits in the diet. Diet rich in fat and decreased physical activity contribute to more rapid atherosclerosis poorer penis blood supply. There is a significantly noticeable erectile dysfunction association with physical activity. The greatest risk of disorders have middle-aged men who have little physical activity (“sitting” job, driving the car, without exercise), and the lowest risk was among those who are physically active or regular basis. Researchers conclude that the “middle age” may be too late to undo the effects of smoking, obesity and alcohol use. It is also found that physical activity can reduce the risk of erectile dysfunction, even if started in middle age. Unusual risk factor for the emergence of erectile dysfunction, marked as obstructive apnea syndrome during sleep (Obstructive Sleep Apnea Sy.–OSAS). Why is OSAS a risk factor, we don’t know for sure, but it is probably the mechanism of action in reduced oxygenation of the erectile tissue. Pathology of this syndrome is obstruction of upper part of respiratory system during sleep, apnea periods during sleep and hypertension. Symptomatology of obstructive night apnea is a loud, persistent snoring and sleepiness during the day, especially when driving (1). Because this phenomenon is indicated as a risk factor worthy of attention, you should ask the patient and his partner about his snoring.

5. CHANGES IN HORMONAL STATUS AMONG OLDER MALES

Occurrence of erectile dysfunction among older men is mostly linked to hormonal status. Among changes that are included in the aging, responsible are three endocrine axes (1): a) hypothalamus–pituitary–testicular axle with lower testosterone serum level, and higher levels of luteinizing hormones (LH) and follicles–stimulating hormones (FSH); b) hypothalamus — pituitary–adrenal axis with noticeable decrease in dechidropiandrosterone (DHEA); c) growth hormone / insulin–like growth factor axis shows the reduced production of hormones with symptoms that can be noticed in case of the deficit of growth hormones in adults (1).

In addition to influence on general health of older men, hormonal changes in sexual function are reflected in the following way: a) an extension of time to achieve erection; b) more control over ejaculation, which is reduced in quantity; c) refractory period prolongation until the next ejaculation.

6. RISK FACTORS FOR ERECTILE DYSFUNCTION IN OLDER AGE

Erectile dysfunction of older men may be due to hypertensive disease, diabetes, heart disease, high levels of cholesterol. Earlier occurrence of some form of erectile dysfunction can contribute as well as stressful lifestyle, tobacco smoking, alcoholism, drug use (1). In the older age, with simultaneous presence of chronic illnesses, more frequently used drugs, so that the medications are a significant risk for the emergence of erectile dysfunction. A significant influence on erectile ability in older men is psychological factors. Sexual activity in middle age is a powerful predictor for the same in older age. Reaction to the physiological changes or changes caused by the disease may also lead to changes in the erectile ability. To this we must be add reactions to the attitudes by others, society or adult children, as well as the conditions of life which can be a strong barrier to sexual activity of older people.

7. DIAGNOSIS OF ERECTILE DYSFUNCTION

Diagnostic evaluation of erectile dysfunction with respect to its often multifactorial etiology represents multidisciplinary area, which includes the involvement of specialists of different medical branches: urology, radiology, internal medicine, neurology, psychology and psychiatry.

8. TREATMENT OF ERECTILE DYSFUNCTION

Therapeutic approach to erectile dysfunction mainly depends on the etiology, risk–factors and overall health of the patients (1). Psychotherapy is a form of therapy which is the first choice if there are psychological–sexual problems.
as a leading reason for erectile dysfunction. It consists of a seance in which the psychotherapist is helping the patient and his partner to understand what the problem is, identifying stress factors, and the emergence of anxiety and tries to resolve them. As a pharmacological treatment for erectile dysfunction for centuries are used different preparations for medication of erectile problems. Impotence was a problem at all times, so that even the presence is not excluded from it. The use of various means that have aphrodisiac properties goes back far into history. Consuming certain kinds of food to increase sexual power generally can be harmful to health. Belief that some species of shells are aphrodisiac has a clear psychological, suggestive background. Cantharis (CANTHARIDES) is the insect found in southern Europe and is used in form of powder from dried insects. This substance causes irritation of urinary bladder and urethra come with blood and stimulating genital area. Can cause erection, but if taken in larger quantities can lead to death. In search for magic herb that increases sexual desire and potency, people are sometimes paying a high price. Such a miraculous cure does not exist. Ginseng plant, native to Eastern Asia, is used as an aphrodisiac and in all probability it is the only plant that stimulates the production of testosterone. Therapeutic feature is invoked drink of GINGER, which warms and stimulates circulation if it is taken as a tea or extracted wet in a little water. Chocolate, which contains the alkaloid THEOBROMINE and a small amount of caffeine, used as an extract or powder without sugar, has a slightly aphrodisiac action (1). Until recently the only product for treating erectile disorders was YOHIMBE HYDROCHLORIDE, extract of West–African wood. The most frequently used system, is named MUSE. Melting of medication in corpus spongiosum and its perfusion in cavernous tissue leads to hemodynamic changes in the form of tumescence. Although the powerful prostaglandins, vasoactive substance, his topical application by intraurethral application is effective in less than 50% of cases, a tumescence of penis is usually insufficient for penetration. As a side effect in most cases occurs pain in penis, and rarely hypotension (1).

Most patients, who suffer from erectile dysfunction, whether of organic or mixed etiology, can be treated with intracavernous injection of vasoactive substances. This type of therapy was mostly in use before the era of Sildenafil citrate. Safety and efficacy of intracavernous injection therapy is confirmed in multiple studies, and in 1995, prostaglandins E1 (PGE1) has been approved for use, in form of medication ALPROSTADIL who is a natural vasodilatation. Its effectiveness is confirmed in more than 90% of men. Optimal dose is determined individually and is 5–20 micrograms, and is evaluated by the quality of erection after 5–10 min after the injection. Duration of erection depends on dose so with 2.5 micrograms of Alprostadil achieved erection last from 12 minutes, and up to more than 30 minutes with the higher dose. The maximum dose is twice per week, but time space of 24 hours between the injections must be respected. Erection duration is between 30 minutes and 6 hours (1).

Positive response to PGE1 is defined as rigid erection that occurs after 5 to 10 minutes after intracavernous injection and lasts 30 to 60 minutes. Reactor (responder) is defined as a patient who reacts by erection adequate for penetration after at least 75% of all injections of PGE1. Given the superior efficiency, and moderate side effects intracavernous self-injection therapy with Alprostadil represents the gold standard for diagnosis and therapy of erectile dysfunction (1).

Hormonal therapy is reserved only for those patients with proven androgenic deficiency and it is not used empirically. Indication for the treatment of erectile dysfunction has less than 4% of patients (1). Testosterone deficiency can be corrected in the following way: a) parenteral testosterone is a drug of choice, that is intramuscular injection of 200–400 mg testosterone cypionate every 2–4 weeks; b) oral Testosterone is given in the form of methyl testosterone in dose of 10–30 mg per day and is less efficient than parenteral; c) transdermal testosterone in the form of pads with absorbable form of medication. Side effects of this therapy can be enlarged prostate, liver damage and fluid retention in the organism.

Erectile vacuum device is a non-invasive and safe method for improving erectile abilities. It consists of cylindrical tube in which the penis is placed and pump which draws the air from the tube, creating a negative air pressure. Enlarge the penis and blood rush leads to erection which is assured by an elastic O ring on the basis of the penis. This constrictive ring may be in use up to 30 minutes max, and then taken off in order to restore normal blood drainage. This method is effective in about 90% of men and is not suitable for patients with significant peripheral vasculatory disease, or diabetics.

Implantation of penile prosthesis as a method to solve erectile dysfunction developed during seventies. It is a surgical method that implants into inside cavernous body and takes over their role in erection.

9. SAMPLE AND RESEARCH METHODOLOGY

The research was carried out as retrospective – prospective and comparative, controlled clinical study. Carried out at the Urology Clinic and Institute for Radiology of the Clinical Center of Sarajevo University and a private Clinic “Mehmedbašić.” Research sample is consisted of patients aged from 17 to 67 years who had erectile dysfunction. The study involved patients with erectile dysfunction. From the study were excluded patients who did not have the will to cooperate and those who had other medical problems such as patients who take nitrate for cardiac interference (absolute contraindication Sildenafil citrate), patients with morphologic changes in the penis. Research includes a group of 90 patients, of whom 60 in experimental and 30 in control group. Experimental group of patients is divided into subgroups marked as A and B.

Group A consists of 30 patients with erectile dysfunction, who were treated with intracavernous injection prostaglandins. A group of patients is divided into A1 aged less than 35 years, and A2 above the age of 35 years.

Group B consists of 30 patients with Erectile Dysfunction, who were treated using the system vasoactive substances – tbl Sildenafil citrate (Levitra). This group was also divided according to age in B1 with less than 35 years, and B2 with more than 35 years of age.

The control group consisted of 30 patients with erectile dysfunction with psychogenic etiology and was treated with
Sildenafil citrate.

10. METHODOLOGY
Diagnostic evaluation of patients is made by protocol, which is consisted of the following segments: a) UROLOGY RECORD, which contains patients identification, data from urology history, and data from objective urogenital examination findings, including diagnostic findings; b) ANDROLOGY RECORD, which includes anamnesis data, information related to previous diseases and conditions, that is, risk factors, which could affect emergence of erectile disorders (system diseases, hormonal therapy, inflammation and injury of penis and testicles, pelvis and perianal region, neurological lesions, alcohol use, tobacco, cigarettes, drugs, occupational diseases, malignant diseases etc., and there findings of spermograms, sperm and urinary flora; c) INTERNATIONAL INDEX OF ERECTILE FUNCTION–(IIEF–5).

11. RESEARCH RESULTS
The research results are presented in tables and charts. We especially selected and discussed processed data which refers to the public health causes related to the emergence of erectile dysfunction problems among our respondents, their consequences identified by analyzing the data processed and on the basis of WHO recommendations and other authors who have presented their results in published articles, and gave the appropriate recommendations in terms of preventive activities of health workers in case of verified or potential patients with these disorders. Three cohorts of patients with erectile disorders were followed and analyzed with respect to the presence of disorder in their history and the success of applied therapy with these respondents in this research period.

Results of significance testing between patients groups for the above table:
– Diabetes mellitus: significantly higher disease rate is in the B group of patients compared to the group C. Value of \(X^2\) test is 4.32, significance level p<0.05.

Patients from group C also have significantly higher disease rate than the patients from group A, but that significance is at somewhat lower level p<0.07, and the value of \(X^2\) test is 3.258.
– Smoking: rate of smoking in groups A and B significantly differs from the smoking rate in group C; at somewhat lower significance level p<0.07 and value of \(X^2\) = 3.01
– Medication: there are no statistically significant differences among patients groups and values of \(X^2\) test are:
  Group A: C. \(X^2\) = 0.739 (not significant)
  Group B: C. \(X^2\) = 1.925 (not significant)

12. DISCUSSION
Erectile dysfunction is a disease of modern man with the trend of more frequent occurrence. This trend applies to all younger man as well as the standard older age men. Indisputable fact is that erectile dysfunction is a problem for millions of men around the world. Although some men erectile function was not the most important measure of sexual satisfaction, for many other erectile dysfunction causes mental stress that impairs their relationships with their families and the environment. The diagnosis and treatment of erectile dysfunction have great improvements. However, many aspects of this problem are insufficiently known in the general population, but also in medical circles. The fact that erectile dysfunction is a problem of simple and uniform definitions as well as the absence of guides and parameters that determine erectile dysfunction, its treatment, as well as the results of treatment through a longer period of time, leads to some misunderstandings and confusion in this area. In relation to the 1970’s, when they believed that the erectile dysfunction is a psychological problem, now at 50-85% of patients we can determine somatic cause using modern medical diagnostics. Causes, evaluation and treatment of male Erectile Dysfunction are still a very broad area of research whose results should provide results to the general population that this is not isolated health problem, but part of social and individual perceptions and expectations.

Erectile dysfunction is most often linked to the natural aging process and tolerates together with other characteristics of the older age. This approach may not be entirely correct. For older people and others, erectile dysfunction is the result of a specific disease or medical treatment, resulting in fear, loss of image and self-confidence.

Looking as whole therapeutic results in tested group of patients we should say that they were very satisfied with the treatment and that they are reporting improvement in his own personality and relations with the partner. At each visit, we discussed the effectiveness, tolerance of the therapy and return of spontaneous erections, and clearly confirmed the safety and reliability of both therapeutic options. Sildenafil citrate efficiency correlates with the level of erectile dysfunction and is significantly reduced with mild vasculatory erectile dysfunction and erectile dysfunction combined with diabetes. PgE1 is the first choice for treatment by intracavernous injection and is effective in more than 90% of patients, and has a low risk of side effects of therapy.

### Table 1. Illnesses as risk factors for erectile dysfunction

<table>
<thead>
<tr>
<th>Illnesses</th>
<th>Group A</th>
<th></th>
<th>Group B</th>
<th></th>
<th>Group C</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of patients</td>
<td>Rate in %</td>
<td>No. of patients</td>
<td>Rate in %</td>
<td>No. of patients</td>
<td>Rate in %</td>
</tr>
<tr>
<td>Cardiovascular diseases</td>
<td>2</td>
<td>6.7%</td>
<td>3</td>
<td>10.0%</td>
<td>3</td>
<td>10.0%</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>7</td>
<td>23.3%</td>
<td>8</td>
<td>26.7%</td>
<td>2</td>
<td>6.7%</td>
</tr>
<tr>
<td>Kidney diseases</td>
<td>1</td>
<td>3.3%</td>
<td>1</td>
<td>3.3%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Neurology lesions</td>
<td>2</td>
<td>6.7%</td>
<td>1</td>
<td>3.3%</td>
<td>1</td>
<td>3.3%</td>
</tr>
<tr>
<td>Surgical procedures</td>
<td>5</td>
<td>16.7%</td>
<td>6</td>
<td>20.0%</td>
<td>2</td>
<td>6.7%</td>
</tr>
<tr>
<td>Trauma</td>
<td>1</td>
<td>3.3%</td>
<td>1</td>
<td>3.3%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Endocrine diseases and hormonal disorders</td>
<td>0</td>
<td>0%</td>
<td>1</td>
<td>3.3%</td>
<td>1</td>
<td>3.3%</td>
</tr>
<tr>
<td>Medication</td>
<td>10</td>
<td>33.3%</td>
<td>12</td>
<td>40.0%</td>
<td>7</td>
<td>23.3%</td>
</tr>
<tr>
<td>Smoking and other addictions</td>
<td>25</td>
<td>83.3%</td>
<td>26</td>
<td>86.7%</td>
<td>20</td>
<td>66.7%</td>
</tr>
<tr>
<td>Mental disorder</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
<td>3</td>
<td>10.0%</td>
</tr>
</tbody>
</table>
World prevalence of erectile dysfunction will probably increase from 152 millions of people in 1995 to 322 millions in 2025 (1). Around 30% of patients with Erectile dysfunction responds to oral therapy, and the next 15% can not take Sildenafil because they use nitrates for angina pectoris (1). That group of patients is choosing ICI therapy due to short time needed to achieve erection and good rigidity.

Erectile dysfunction as a demanding medical problem increasingly occurs in our climate, which requires a few innovations of measures and activities: a) the diagnostic evaluation of erectile dysfunction has not been fully unbiased or was too invasive, but inaccurate, and so precarious that it did not become clinical practice. It is therefore necessary to establish evaluation schemes to identify etiological factors of erectile dysfunction; b) ultrasonography evaluation search with color-Doppler discovered new, large opportunities in diagnostics of erectile dysfunction; c) pharmacology offers new medicines for the treatment of erectile dysfunction, which are essentially vasoactive substances. Therefore, their effects are direct on the blood vessels.

Global ignorance about erectile dysfunction, as in medical circles, and in the general population and ignorance about incidence of erectile dysfunction in our area, gaining professional opportunities for spotting etiology causes, their diagnosis, as well as the exact therapeutic action, insufficient knowledge of the effects of therapy for erectile dysfunction, dosage titration, dose and safety of use, without any doubt point to enormous medical and public health importance of this problem.

Scientifically verified information about the role of Color-Doppler in diagnostic and therapy evaluation of erectile dysfunction is quite modest. In the future it is essential to explore the basic connection between congenital and acquired causes for the emergence of erectile dysfunction, as well as diagnostic and therapeutic options for its treatment, especially by intensive use of these technologies.

Urologic significance is evident in the testing and finding professional attitudes related to the natural role of urology in solving problems related to erectile dysfunction, in its diagnosis and therapy. These attitudes could put an end to many unknowns and dilemmas in the separation of organic from nonorganic causes of erectile dysfunction. Knowledge about these relevant relationships can help many patients who until now on this area could not find a solution to their problems.

Normal sexual life of every individual is part of his overall health, because it represents as somatic as well as psychological health. Only such a man is worth the society and valuable member of the social community. The socially important task may realize urologist implementation of adequate diagnostic procedures, with the ultimate goal of medical truth about the reasons for erectile dysfunction, and the application of adequate therapies that will result in the establishment of regular erectile function. The final result of the whole process is very healthy individuals, healthy offspring and normal families which are important for humane society.

The task of those dealing with treatment of erectile disorders is to enable the production of practical protocols for diagnostic evaluation of erectile dysfunction, the protocol of its hormonal treatment in dose that is optimal and for the patient is absolutely safe. Such a protocol can be a real example of the application of scientific knowledge that will enable the implementation of social tasks of this research. At the end of the demonstrations of new facts about erectile dysfunction as treatable organic disorder will help to resolve a number of taboos related to this topic, and present to the public the new aspects of this problem.

13. CONCLUSIONS

- The term impotence should be replaced with the term erectile dysfunction which stands for incapability to achieve and/or maintain penile erection sufficient for penetration.
- Erectile dysfunction is a medical problem in B&H.
- Contrary to public, and to some mount also professional opinion many cases of erectile dysfunction can be sufficiently treated with adequate selected therapy.
- Erectile dysfunction requires specific, urology, but also multidisciplinary evaluation.
- Development of quantification methods for degree of the erectile dysfunction makes this problem and treatment outcome objective.
- Information lack on many aspects of the erectile dysfunction, because it is necessary to conduct wide population studies on diagnostic and therapy plan.
- Incidence of erectile dysfunction in B&H with this research could not be accurately determined, partially due to small sample, and partially tie to opinion about this problem.
- Erectile dysfunction is important problem of public health and deserves support of basic sciences researchers.
- Urologist is specialist (medical profession) which is closest to solving the problem of the organic erectile dysfunction.
- Urologist can: a) conduct diagnosis; b) conduct and determine treatment; c) evaluate therapy effects; d) solve complications after therapy.
- Color Doppler test is a powerful diagnostic tool in diagnosis of erectile dysfunction, because it is a form of dynamic tests.
- Therapeutic effect in risk groups (diabetes, conducted prostatectomy, hypertension medications and similar) are important both in case of PgE1 and Sildenafil citrate and similar.
- Problem of vein decompensation with current medication are only half solved.
- Many urology and andrology diseases which we tested are not cause for erectile dysfunction. That is not the reason that the treatment of the organic erectile dysfunction does not belong to urologists.
- Frequency of erectile dysfunction has progressive increase with age, but it is not inevitable consequence of aging (other occurrences related to old age increase frequency of erectile dysfunction).
- Erectile dysfunction can be a consequence of medication due to other medical problems or result of medication abuse.
- Erectile dysfunction besides direct effect on sexual functions can have severe psychological consequences.
• Color Doppler enables therapy evaluation of different medication success in case of erectile dysfunction.

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