Percentage of Organic Versus Psychogenic Erectile Dysfunction in Male Patients

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Abstract

In the Athens Medical Sex Institute (ISIA), we investigated many patients with sexual dysfunction, among them the commoner complain being erectile dysfunction in the male population. The investigation and diagnostic evaluation of all erectile dysfunction patients has been made using an integrated three-team approach, involving the psychologist, endocrinologist and urologist as specialists in order to diagnose any underlying andrological disorder. After this evaluation, all erectile patients, together with therapists and physicians had an extended meeting where the diagnosis and possibility of treatment were presented. Thus a definite organic versus psychogenic diagnosis was achieved in most cases.

Among 165 male patients with erectile dysfunction, 60 (36.4%) considered their condition as organic, 52 (31.5%) rated it as mostly psychogenic, 54 (27.2%) thought it could be of mixed aetiology and 8 patients (4.8%) could not comment at all as to the possible cause.

From these 165 male patients with erectile dysfunction we rated 56 patients (33.9%) as having organic erectile disorder. Of these 56 patients, 30 (18.2%) had probable vascular erectile dysfunction, while 16 (9.7%) had endocrine (prolactin related) disorder. 109 patients (66.1%) were diagnosed as having psychogenic erectile dysfunction. Psychogenic involvement irrespectively of concomitant organic pathology was found in 153 patients (92.7%).

We conclude that the three-team integrated approach we used can definitely differentiate those men they need further organic (urological/endocrine) work up, while takes into consideration the psychological parameters in all cases studied.

Introduction

The erectile dysfunction is a common complain of millions of men of either age and has a worldwide prevalence (Lau et al.(2005), Nicolosi et al. (2003), Johannes et al. (2000)). It appears less common at a younger age and the incidence increases with age (Amar et al (2005), Corona et al. (2004)). Men affected, often hesitate to discuss the complain with their physicians, mainly thinking that either doctors are unwilling to discuss the above or hesitate due to the symptom’s nature (Marwick (1999), Chum et al. (2001)). Thus the erectile dysfunction often, either delays to be diagnosed, or is underdiagnosed and undertreated (Impotence Association Survey (2002)). Besides it is a dysfunction of various aetiology (Melman & Gingel (1999)), which can be either organic, psychogenic or mixed (Newey (1998)). Any type of diagnosis can affect either age and although organic aetiology is commoner with increasing age (Miner & Seftel (2007)), being young does not guarantee immunity against organicity. Thus all the patients need a thorough investigation as to the correct diagnosis, in order to receive the appropriate treatment. With accurate diagnosis of erectile dysfunction, there are increased possibilities of improvement or cure of the condition. Organicity should be investigated and diagnosed first. Vascular, neurological, other urological and endocrine causes should be dealt initially and the diagnosis of purely psychogenic dysfunction should be the one of exclusion. Mixed aetiologies should not be forgotten, while having an organic erectile dysfunction does not exclude psychological impairment.

Methods

In the Athens Sex Medical Institute (ISIA), urologists, endocrinologists and psychologists work as a team and each patient is examined by all three, each at a time. At the end of the diagnostic evaluation, patient and therapists, physicians and surgeons who had been involved, undergo a meeting where the diagnosis and suggested treatment is thoroughly discussed (Illustration1).

1. Urological Evaluation

The urologist performs an interview taking a medical history and performs a physical examination with emphasis on the scrotal area and the genital system. A rectal examination for prostate evaluation is also performed. For testing the integrity of the vascular system, a papaverine test is also performed (repeated if needed with same or higher dose). The patient’s response to the above test is recorded and the exclusion or possibility of vascular problem is included.
according to the urologist’s opinion in the patient’s notes. Whenever needed PSA estimations are undertaken. If a vascular aetiology or neurological involvement is suspected, Rigiscan testing may be suggested and undertaken, provided the patient agrees to the above. Sometimes, when inconclusive data are collected, neurological studies may be undertaken in another centre but this is not usually a common urological direction.

2. Endocrinological Evaluation

The endocrinologist performs a detailed interview and takes a medical history. Emphasis is given to the type of onset (gradual versus abrupt), degree (partial versus total), and duration (days, months, years) of the erectile dysfunction. A detailed personal and family history is also taken. Medications are being recorded (type, dose, duration, side-effects and the cause for which they have been prescribed). Any diseases (relevant to the condition) tried to be elicited. A social history especially with relevance to drugs, alcohol, substances and tobacco are also investigated. The endocrinologist performs physical examination of all systems and especially of the scrotal/genital area or systems they have a relevance to the personal history. Several general haematological tests such as FBC, ESR, biochemical profile, lipid profile, glucose, HbA1c are asked if required according to the patient’s complains, physical status, previous diseases and age. Special laboratory endocrine investigations include morning testosterone, prolactin, and if required repeat prolactin, free testosterone, SHBG, T4, T3 and TSH. If an endocrine cause as to the problem is diagnosed (eg hypogonadism), the patient has a full endocrine work up to uncover the cause of the disease.

Hyperprolactinaemia, if suspected to be non drug or stress-related is also investigated further with appropriate radiological evaluation of the pituitary (MRI) and pituitary function tests. If hypothyroidism is discovered, it is also investigated and appropriately treated. Diabetes is also investigated as far as appropriate glycaemic control, normal gonadal function and the vascular/neurological side is covered diagnostically and functionally by as mentioned in the urologic evaluation of the patient.

3. Psychological Evaluation

The psychologists performs an expert’s interview examining all the factors of the patient’s psychology and mental health and gives emphasis on his relationships/marital status and functioning and the social history. Also, complains of the partner whenever she attends/cooperates are taken into consideration, while the psychologist records observations that might help the diagnosis and the future treatment.

After the three team approach has finished the diagnostic work up and all data from the laboratory investigations have been collected, the patient together with therapist, endocrinologist and urologist undergoes a thorough meeting where all the aspects (surgical/urological, medical/endocrinological, and psychological are discussed. If there is a mental illness or the patient is taking a psychotrophic medication, a psychiatrist is involved both in his initial assessment and in the meeting for future follow up. During the above meeting, there is an extensive discussion as to the cause/s of the patient’s erectile dysfunction. If the cause is psychogenic, the patient is informed that there is no organic factor found in the genesis of his erectile dysfunction, the involvement of surgeons and physicians ends up and the psychologist is involved either in his personal care or in his relationship dynamics provided the partner agrees. If an organic cause is found, there is usually further work up but a supportive role of the psychologist cannot be excluded, since most of the time, a psychological component is added to the organic one in the erectile dysfunction male patients.

In the meeting, the patient is encouraged to discuss all these aspects that have probably forgotten to be mentioned before in any of the professionals involved, discuss further with the one that is closer to his problem and give his appraisal. It is understandable that we try to make sure that the patient understands fully the communicated medical terminology and he is also encouraged to give his opinion for the above, since he will eventually decide to or not comply with the suggested treatment.

Results

Accurate diagnostic evaluation was achieved by the multidisciplinary approach of the erectile patients (illustration1).

From 165 patients during the initial interview, 60 (36.4%) considered their condition as organic, 52 (31.5%) rated it as mostly psychogenic. 45 (27.2%) thought it could be of mixed aetiology and 8 patients (4.8%) could not comment on the aetiology (illustration 2).

From 165 patients with erectile dysfunction involved in the study, 56 had definitely an organic erectile disorder (33.9). 30 (18.2%) had probable vascular erectile dysfunction as proved by papaverine testing or
Rigiscan. 16 patients (9.7%) had endocrine erectile disorder (diabetes excluded), due to elevated prolactin levels. These patients had to be investigated further for the establishment of the diagnosis of true hyperprolactinaemia (pituitary adenomas) or drug-induced hyperprolactinaemia.

Psychogenic dysfunction was diagnosed in 109 patients (66.1%), and no pathological tests or results were found. These patients needed the involvement of the psychologist for treatment and follow up. Psychogenic involvement irrespectively of concomitant organic pathology was found in at least 153 patients with erectile dysfunction (illustration 3).

Discussion

Erectile dysfunction has a variable aetiology. It can be organic, psychogenic or mixed (Althof & Seftel (1995), Tiefer & Schuetz -Mueller (1995)). By interviewing a patient, even if there are obvious predisposing or precipitating factors, a definite diagnosis cannot be made (Miller (2000)). The patient's age should be taken into consideration (Schiavi & Rehman (1995), Lunenfeld (2006)), since the incidence of organic erectile dysfunction increases with age (Kaiser (1999), Gladh et al. (2005)). Even if the above is considered, organic factors may be the cause even in young patients (Zonszein (1995), Seftel et al. (2004)), and older age, although may make us suspect increased percentage of organic causes, does not exclude the possibility of an erectile dysfunction to be purely psychogenic (Beutel (1999)). Thus, in evaluating an erectile dysfunction patient, one has to have always in mind that there is always a possibility to miss the organic aetiology in the young or underdiagnose pure psychogenic erectile dysfunction in the old. Carefully selecting those to be treated appropriately, means being 100% sure about the diagnosis and this has to make the psychogenic erectile dysfunction one of the exclusion.

In our Sex Institute, we use a thorough three-team integrating diagnostic approach. Thus vascular disease is identified, while medical/endocrine causes are also diagnosed. By treating these first, we improve a percentage that could have been mistakenly thought psychogenic (Di Meo (2006), Bancroft & Janssen (2001), Wespes et al. (2002)) and we guarantee that those treated by the psychologist have no underlying organic pathology, which would have made the psychological techniques gone astray. The patient being confident about the cause, increases compliance provided that he accepts the data found and is not continuing to consider his own explanations about the pathogenesis of the condition.

We noticed that patients, even psychologically minded, accept easier the organic diagnoses perhaps because the symptoms arise from a somatic area and react negatively to the psychological explanations or suggested treatments (non published observations). This tendency must be quite obvious and in other nationalities' patients, since everywhere psychological impairment carry the fear of stigma (Perlick (2001)) or the possibility of not being easily dealt with (Shabsigh et al. (1998)).

Organic diagnosis in erectile dysfunction, does not constitute the majority of cases. Psychogenic dysfunction is on the other hand is relatively common. The organic dysfunction though is not rare and affects a good percentage of patients. It is therefore important to spot those with definite vascular, neurologic, endocrine or medication induced erectile dysfunction and deal with these causes, before or simultaneously with concomitant psychological causes.

We also noticed that the patients feel grateful when it is explained to them that a certain cause is the trigger of their problem, while when they are left in the dark, not knowing where to attribute this somatic complain, they easily develop higher stress levels, negative thoughts and attitudes, or low self esteem, which may drive them to take many wrong decisions. Thus, we emphasize to them that although a formulation with many hypotheses can be easily done a priori, a positive diagnosis can definitely be made after detailed interviewing, examination and all the relevant investigations.

References


Illustrations

Illustration 1: Diagnostic evaluation of the erectile dysfunction patients
a. Urological Evaluation
1. medical history
2. physical examination (esp. scrotal and rectal examination)
3. papaverine tests
4. Rigiscan as required
5. Other (eg. PSA as required
b. Endocrinological Evaluation
1. medical history
2. physical examination of all systems, including scrotal examination
3. general haematological tests as required
4. special endocrine tests (eg. Testosterone, Prolactin, HbA1c etc)
5. if endocrine anormality is suspected, then full endocrine work up as required

c. Psychological Evaluation
1. interview (emphasis on psychological health, relationships and social history)

Illustration 2: Patients’ beliefs about the aetiology of their erectile dysfunction
1. Total erectile dysfunction patients: 165 (100%)
2. Patients thinking their ED * of organic aetiology: 60 (36.4%)
3. Patients thinking their ED of psychogenic aetiology: 52 (31.55)
4. Patients thinking their ED of mixed aetiology: 45 (27.2%)
5. Patients who could not comment on aetiology: 8 (4.8%)

*(ED : erectile dysfunction)*

**Illustration 3:** Organic versus psychogenic dysfunction in 165 male patients

1. Total erectile dysfunction patients: 165 (100%)
2. Erectile dysfunction patients of organic aetiology: 56 (33.9%)
3. Erectile dysfunction patients of psychogenic aetiology: 109 (66.1%)

Organic causes: 56 (33.9%)
Vascular cause: 30 (18.2%)
Endocrine cause: 16 (9.7%)

Psychogenic erectile dysfunction: 109 (66.1%)
Psychogenic impairment (independent of the diagnosis): 153 (92.7%)
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