The Diagnostic Three-Team Approach of the Male Patient with Sexual Dysfunction for Evaluation of the Organic versus Psychogenic Erectile Disorder, Emphasis Given to Investigate the Percentage of Vascular, Neurologic, Endocrine and Psychogenic Involvement of the Organic Pathology

**Corresponding Author:**
Prof. Maria S Venetikou,
Professor of Pathophysiology and Nosology, School of Health and Caring Professions, Technological Institute of Athens, Aigaleo, Greece, 88, Agias Varvaras St, 15231 - Greece

**Submitting Author:**
Prof. Maria S Venetikou,
Professor of Pathophysiology and Nosology, School of Health and Caring Professions, Technological Institute of Athens, Aigaleo, Greece, 88, Agias Varvaras St, 15231 - Greece

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Author(s): Venetikou MS, Lampou T, Gizani D

Abstract

In the assessment of the patient with erectile dysfunction, psychogenic and organic (vascular, neurological and endocrine) involvement should be considered in the pathogenesis of the condition. The possibility of erectile dysfunction being of mixed origin, complicates the diagnostic approach even further. An integrated team approach of different specialists is required. In our Sex Institute, every patient with erectile dysfunction has been evaluated separately by a psychologist, an endocrinologist and a urologist. Psychological assessment consisted of an expert’s interview, taking into consideration the patients’ complains, in many instances the partner’s complains and the psychologist’s observations. Endocrinological evaluation consisted of a detailed medical history and a complete physical examination complemented with various general and endocrine hematological tests as required. Urological evaluation consisted of an initial interview, a physical examination according to the complains, especially rectal and scrotal examination, followed by testing the vascular system usually with a papaverine test. Rigiscan and PSA levels were used as required. All patients after the three - diagnostic team approach had an extended meeting with all three specialists present, in order to discuss the involvement of each side in the pathogenesis of their erectile dysfunction. Thus the percentage of the contribution of each side was rated. Erectile dysfunction is multifactorial and diagnostic accuracy is highly desirable. We therefore conclude that this team approach, guarantees the in depth diagnostic evaluation of erectile dysfunction in all patients attending the Sex Institute, while a definite diagnosis is obtained in most cases.

Introduction

Erectile dysfunction is a common symptom affecting millions of men worldwide [1, 2] and efforts are being taken in order to investigate the true incidence worldwide [3]. Extensive studies in various countries are taking place [4] particularly in view of the current use of new medications for treatment [5, 6]. Erectile dysfunction, although common, is of variable aetiology [7, 8]. Organic, psychogenic and social factors are involved in the aetiology and all these should be taken into consideration for the correct diagnosis to be obtained. Organic factors can be vascular, neurological and endocrine, psychogenic and social can also be multiple [9, 10]. A clinical approach to the erectile dysfunction patient should take all the above factors into consideration [9]. Correct diagnosis, guarantees appropriate treatment and when the suggested treatment is successful, there is often improvement and cure of the symptoms together with amelioration in the relationship(s) and patients’ levels of stress, mood and self - esteem. A single clinician is usually not effective in such a broad spectrum approach, since it requires surgical/urological/medical and psychological expertise. Many aspects of the problem that could have been omitted or missed by one clinician are usually successfully covered by the other. In the Athens Medical Sex Institute we used a multidimensional clinical evaluation by a three - team approach in order to correctly diagnosing the aetiology of erectile dysfunction in male patients. Initially this claims to differentiate the organic versus psychogenic aetiology. After this is achieved with minimal investigations required, emphasis is given to investigate the percentage of vascular, neurologic, endocrine and psychogenic involvement in the organic erectile dysfunction. We describe here our integrated team approach to the diagnostic evaluation of the erectile dysfunction patient.
Methodology

In the Athens Sex Medical Institute, 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.

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 the 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 a common urological practice.

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 complaints, 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 as mentioned in the urologic evaluation of the patient.

3) Psychological Evaluation

The psychologist performs an expert’s interview examining all the factors of the patient’s psychology giving 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.

The three-team diagnostic approach to the male patient with sexual dysfunction is outlined in Table 1.

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 psychotropic 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 present all these aspects that has probably forgotten to mention to 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.

Comments on Methodology

We described the diagnostic three – team approach of the patient with sexual dysfunction in a Sex Clinic in Athens in order to evaluate organic versus psychogenic aetiology. We are convinced that the above presented methodological diagnostic approach guarantees great diagnostic accuracy of the erectile dysfunction. In most cases, independently of the age, the organic involvement is differentiated from the psychogenic impairment. We definitely give emphasis initially to investigate the percentage vascular (neurological if any), endocrine and psychological involvement in the organic erectile dysfunction. The pure psychogenic dysfunction (although sometimes can seem to be clinically obvious from the initial presentation), is a diagnosis of exclusion. It is true that the great percentage of cases is psychogenic [11], but it is definitely important not to miss the organic pathophysiology which after all increases with increasing age. Besides, urological/surgical and medical treatments may aetiologically improve the erectile dysfunction (eg a treated pituitary adenoma), while it would have been a mistake to suggest psychotherapy in a non drug – induced hyperprolactinaemia, and the thorough investigations by physicians and surgeons helps to avoid the above mentioned pitfalls. This three – team diagnostic approach of the Sex Institute secures an accurate diagnosis in most of the cases of men with erectile dysfunction.

Discussion

We presented the way we usually evaluate all male patients with sexual dysfunction in the Athens Medical Sex Institute. This is not a yesterday’s way if interviewing and diagnosing sexual dysfunction, it has been applied successfully in our clinic for years.

We found that in most cases it works very well for both medical staff and the attenders. The surgeons feel comfortable that the medical area is fully covered, while the physicians feel that the surgeons also provide great help by diagnosing and treating the urological area. Psychologists cover all those factors that the medical staff might feel less competent or unable to deal with, and by attending a meeting at the end, all these specialists of different orientation, learn to work effectively as a team, complementing each other, and also enriching their experience and their points of view. Besides, accuracy in the diagnostic process, is definitely greatly increased. Those patients with vascular involvement in their erectile dysfunction [12, 13] are identified and steps are taken to improve their function, while the psychological component is not forgotten, since even if there are no psychogenic predisposing or precipitating factors, after a certain time of organic erectile dysfunction, negative thoughts, attitudes, depressed mood, reduction of self-esteem and relationship problems [14] may eventually appear even in these men they feel confident enough. Currently this subset of patients can be helped not only by surgical manoeuvres but by medications as well [15] and this further implies appropriate and accurate diagnosis, so patient and physician know despite medication improvement, what is the underlying cause of the dysfunction.

Diabetics may also properly dealt with if the vascular/neurologic involvement [15, 16, 17] is diagnosed together with the endocrine component of their pathogenesis, since many diabetics may show lower testosterone levels compared with normal age – matched controls [18]. Due to the long duration of their disease, the every day tests and treatment, and the many possible long term complications, diabetics may benefit not only from urologists and endocrinologists but by the psychologists as well, since they quite often need a supportive therapist to help them face all the above.

The endocrine patient with hypogonadism (either age) is also identified, diagnosed appropriately and treated accordingly [15].

The patient with stress, drug or disease related hyperprolactinaemia is also properly diagnosed and receives a full endocrine work up with further investigations [19]. In these cases, the erectile dysfunction can be not only improved but completely cured especially if treatment is undertaken quickly and the erectile dysfunction is not left to delay for long, in order to develop into a vicious circle process [20].

The patient with borderline, or low normal testosterone, who is not hypogonadal per see, but complains of erectile dysfunction and is over fifty, still presents a difficult problem for the endocrine evaluation, since it is not exactly known if it constitutes a normal phenomenon of andrological decline (andropause) [20, 23] or a separate syndrome (ADAM/PADAM) which affects aging men with erectile dysfunction [24]. Till a definite decision is made on how to properly treat these men with erectile dysfunction, it is better to
abide with the suggested criteria for diagnosis [25] and treatment with PDE5 inhibitors or testosterone [26, 27] or combinations [28].

We therefore presented in this paper, our team approach into the diagnostic evaluation of patients with sexual dysfunction, particularly male patients with erectile dysfunction of all ages. We think that in most cases, after the patient’s evaluation, what we are treating, is what we had investigated and diagnosed. Besides, the patients, although not always happy about the diagnosis, at least they are sure that what they had heard in the meeting, was not a diagnosis of approximation.

Table 1

<table>
<thead>
<tr>
<th>Diagnostic evaluation of the erectile dysfunction patients</th>
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<tbody>
<tr>
<td><strong>a) Urological Evaluation</strong></td>
</tr>
<tr>
<td>1. medical history</td>
</tr>
<tr>
<td>2. physical examination (esp. scrotal and rectal examination)</td>
</tr>
<tr>
<td>3. papaverine tests</td>
</tr>
<tr>
<td>4. Rigiscan as required</td>
</tr>
<tr>
<td>5. Other (eg. PSA as required)</td>
</tr>
<tr>
<td><strong>b) Endocrinological Evaluation</strong></td>
</tr>
<tr>
<td>1. medical history</td>
</tr>
<tr>
<td>2. physical examination of all systems, including scrotal examination</td>
</tr>
<tr>
<td>3. general haematological tests as required</td>
</tr>
<tr>
<td>4. special endocrine tests (eg. Testosterone, Prolactin, HbA1c etc)</td>
</tr>
<tr>
<td>5. if endocrine abnormality is suspected, then full endocrine work up as required)</td>
</tr>
<tr>
<td><strong>c) Psychological Evaluation</strong></td>
</tr>
<tr>
<td>1. interview (emphasis on psychological health, relationships and social history)</td>
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</tbody>
</table>

References

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