A Series of Special Operations Forces Patients with Sexual Dysfunction in Association with a Mental Health Condition

Gregory Lang, MD

Abstract

The Department of Defense has placed considerable emphasis on the identification of post-traumatic stress disorder (PTSD) in military personnel returning from Iraq and Afghanistan, and several mandatory screening tools are currently used by primary care clinicians to assist in this effort. PTSD has been shown to impair emotional and social functioning, and to affect physical health and quality of life. Previous research has identified that combat veterans meeting diagnostic criteria for PTSD are more likely to experience some form of sexual dysfunction. This article presents four clinical cases of Special Operations Forces (SOF) patients who experienced sexual problems in association with symptoms of PTSD. Mandatory screening forms may be able to identify a subset of patients with PTSD; however, the perceived stigma of PTSD may prevent SOF personnel from seeking appropriate care. On the other hand, the barriers to care for sexual dysfunction have been reduced in recent years. Young, healthy male combat veterans who seek treatment for sexual dysfunction should be questioned about symptoms of PTSD.

Background

Several recent studies of military personnel serving in Operations Iraq Freedom (OIF) and Enduring Freedom (OEF) have confirmed previous research that exposure to combat is associated with mental health problems to include post-traumatic stress disorder (PTSD), major depression, and substance abuse.[1,2] In a longitudinal cohort of 88,235 U.S. Soldiers returning from OIF who completed both a Post-Deployment Health Assessment (PDHA) and a Post-Deployment Health Re-Assessment (PDHRA), the overall rate of mental health problems for active duty Soldiers ranged from 17% on the PDHA to 27% on the PDHRA.[2] This same study found that the rates of symptoms that screened for PTSD increased from 12% on the PDHA to 17% on the PDHRA. These numbers are consistent with previous studies that have reported a higher prevalence of PTSD in Vietnam veterans as compared to the general population of the United States.

PTSD is the development of characteristic and persistent symptoms along with difficulty functioning after exposure to a life-threatening experience or to an event that involves either a threat to life or serious injury.[3] PTSD is an anxiety disorder, and patients who suffer from it often experience nightmares, flashbacks, difficulty sleeping, or feeling detached. Frequently, PTSD is associated with other co-morbid psychiatric disorders to include mood, dissociative, anxiety, substance-related, and personality disorders. These co-morbid conditions can impede recovery and can lead to an increased risk of functional impairment in other areas. Often, patients with PTSD will present to primary care clinics with physical health problems related to their functional impairment which may mimic other medical conditions. Unrecognized PTSD as the underlying diagnosis may result in inadequate treatment or the inappropriate provision of medical or surgical care.

Several authors have proposed that sexual dysfunction is a common physical and behavioral impairment frequently experienced by patients with PTSD. Earlier studies of Vietnam veterans suggested that there is a relationship between PTSD and increased rates of sexual problems. In 1992, Litz et al. compared the self-reported physical health complaints of male Vietnam combat veterans both with and without PTSD. Veterans with PTSD were significantly more likely to report problems with sexual disinterest (37%) and impotence (32%) in contrast to those without PTSD (12% and 6%, respectively).[4] Five years later, Letourneau et al. surveyed 90 male Vietnam veterans enrolled in an outpatient Veterans Affairs PTSD clinic using a self-reported

inventory of sexual satisfaction. The study found that 82% of the respondents experienced significant sexual difficulties, and 69% had erectile problems.[5] Though significantly limited by the survey return rate and the inability to generalize the findings to all combat veterans with PTSD, the results provided support for the hypothesis that veterans with PTSD are more likely to experience sexual problems than those without PTSD.

More recently, an Israeli study reported that two groups of male PTSD patients (those who were treated with selective serotonin reuptake inhibitors [SSRI] and those that were untreated) experienced decreased levels of sexual desire and arousal, decreased frequency of sexual activity and orgasm, and decreased overall satisfaction as compared to normal controls.[6] In 2002, Cosgrove et al. surveyed an age-matched group of outpatient veterans treated at a Veterans Administration medical center, and found that veterans with PTSD had lower scores for sexual function and overall satisfaction. Furthermore, 85% of those with PTSD experienced erectile dysfunction (ED) as compared to 22% of the veterans in the matched control group with those in the PTSD group reporting a higher prevalence of moderate to severe ED.[7] All together, these survey results indicate that male patients with PTSD frequently have associated problems with sexual function.

Unfortunately, patients and healthcare providers alike are frequently reluctant to discuss sexual topics. Reasons given by physicians have included not knowing what questions to ask, feeling uncomfortable with the subject of sexuality and the language of sex, and fears of insulting the patient.[8] Similarly, patients may feel embarrassed by their perceived failure to live up to the cultural icon of maleness. From a clinical perspective, this could be especially concerning in the Special Operations community where young men who experience sexual dysfunction may see it as a weakness in the warrior ethos to seek help for these problems. Sexual dysfunction however, can be an objective sign of an underlying mental health problem; whereas, many of the other symptoms of PTSD are less obvious to the patient. Thus, it is important to ask questions that might identify a psychological etiology when an otherwise healthy young male presents with a sexual problem, as that will influence treatment options. What follows is a brief synopsis of the presentation and management of four patients with sexual dysfunction and mental health issues who were seen over the course of one year in a primary care clinic.

Presentation of Case One

Staff Sergeant SH is a 29-year old married Caucasian male non-rated crew member (NRCM). His initial clinical encounter relative to his current condition occurred in conjunction with his annual Class 3 Flying Duty Health Screen (FDHS) — commonly referred to as a flight physical. SH had no significant previous medical or surgical history. He reported no prescription medications and only occasional use of over the counter (OTC) medications. SH was known by this physician for more than two years prior to the visit, during a period which they had both flown together on multiple missions in support of Operation Enduring Freedom (OEF). In addition, it was known that SH had lost several close unit friends and associates in a rotary wing aircraft mishap within the previous year. He initially expressed no specific complaints; however, the physician, aware of the patient's recent loss, spent a good deal of time discussing the events surrounding the mishap and their potential impact on the patient himself. It was apparent that this tragedy had significantly distressed the patient by the notable changes in his affect and his speech compared to the many previous mission-related encounters. Whereas SH had been quick with a smile and had spoken in an animated tone, he now presented with a flattened affect and spoke in a detached tone of voice.

The obvious changes in SH's behavior were concerning for possible interference with performance of crew duties; therefore, specific questions were asked in this case to verify that SH was not a risk to safety of flight. He indicated that he occasionally had some mild apprehension about flying since the mishap, but he had no doubts that he could perform his duties to the required standards. SH did not display any behaviors that raised the level of concern to the point of restricting him from flight duty; however, he agreed to meet with the unit psychologist to discuss his combat experience as a door gunner and his feelings about the death of his close friends. He was instructed to call to make an appointment within the next two weeks. The remaining portion of his FDHS was unremarkable. Upon completion of the flight physical, SH was asked if he had any questions or concerns. At that point, he reluctantly asked if he could discuss a personal matter.

SH then described how he had been experiencing difficulty in maintaining an erection during sexual intercourse with his wife. He stated that this situation had started approximately three months prior. Initially it had occurred infrequently, but had worsened to the point that he was now experiencing ED every time he and his wife attempted intimacy. He and his wife had been married for over six years and had one child. He discribed their relationship as monogamous

since they were married, with no unusual marital conflicts or recent changes in their relationship. He said that he was both physically and emotionally attracted to his wife, and he was certain that she felt the same except that she had expressed some concern recently about his inability to maintain an erection during intercourse. He indicated that prior to the start of his problem, he and his wife had sexual relations an average of two to three times per week. However, in the previous month their intimate relationship had been almost nonexistent due to performance anxiety on his part. He confirmed that he continued to experience nocturnal erections, but he was now so worried about his ED that he had avoided any sexual contact with her in the past few weeks.

Management of Case One

Erectile dysfunction is the persistent inability to attain or maintain penile erection sufficient for sexual intercourse. Erection is one of four main components of male sexual function, the others being desire (libido), ejaculation, and orgasm. A problem with any one or more of the four components can be referred to as sexual dysfunction. ED can be due to organic or psychogenic causes. The organic causes can be further divided into vasculogenic, neurogenic, and hormonal. These are often differentiated by the patient's history. Psychogenic causes are suggested based on factors such as a young age with abrupt onset, the persistence of nocturnal erections, the presence of excessive stressors, or mental status findings indicative of depression or anxiety. In this case, SH is a young, otherwise healthy male who confirmed the physical ability to attain an erection by his report of nocturnal episodes. His clinical presentation pointed to a change in his mental status after the traumatic deaths of his friends while performing the same job that he did. Furthermore, he was now experiencing increasing anxiety over his ability to engage in sexual relations with his wife.

The physician believed that SH's erectile dysfunction was a result of an underlying mental health problem. SH agreed to see the unit psychologist within the next 48 hours after an explanation of how stressors could lead to impaired sexual functioning. The psychologist made a diagnosis of PTSD and recommended that the patient begin a regular counseling program as therapy. At the follow-up appointment with the flight surgeon, SH was given a prescription for vardenafil with the expectation that he would use the medication for two or three times before attempting sexual intercourse without any assistance. Although two studies have reported improvement in erectile function, orgasmic function, and sexual desire with the use of sildenafil in PTSD patients with ED,[9,10] vardenafil was chosen due to local formulary limitations. Subsequent long-term follow-up with SH has shown improvement in his mood and affect. He continues to experience intermittent ED which has been improved with occasional refills of vardenafil, though he reports that he has been able to engage in sexual intercourse with his wife without medication as well. SH has continued his counseling with the psychologist, and to date he has not required any medication for treatment of his PTSD.

Presentation of Case Two

Chief Warrant Officer 3 TM is a 37-year old separated Caucasian male pilot who presented to the flight surgeon after calling to make a same-day appointment to discuss an urgent concern. When TM met with the physician, he stated, "I need some help." Elucidation of the situation took quite some time, but amounted to an individual who was struggling with alcohol abuse and a crisis in his marital relationship. TM described a slowly evolving history of emotional divorce from his wife over the past five years. He was unable to put a date on anything specific that had happened; however, they had separated approximately six months ago. Similarly, he had difficulty pinpointing the start of his alcohol abuse, but he had come off of a drinking binge several weeks ago and realized that his life was in disarray and that he needed help.

TM stated that he had been deployed to Operation Iraqi Freedom (OIF) multiple times over the past several years. He related that in his job as a pilot, it was a matter of routine that he was involved in Special Operations missions that resulted in enemy fire directed at his aircraft. Additionally, he had witnessed the death or wounding of enemy and friendly forces on several occasions. Some of these had included close friends in his unit. TM stated that these experiences weighed heavily on his mind. Demonstrating a great deal of personal insight, TM felt that his use of alcohol was a method of psychological escape. He now realized that the alcohol was making things worse. Furthermore, he knew that he had erected an emotional barrier to prevent feeling any psychological pain. Unfortunately, this had led to problems in his personal life where he had stopped showing any kind of emotions.

TM had previously sought medical attention approximately one year prior at the request of his wife when his emotional detachment had become too much for her. He was seen by another primary care provider

and started on citalopram, a selective serotonin reuptake inhibitor (SSRI), for an unlisted diagnosis. TM was erroneously allowed to continue performance of his aviation duties in contravention of the Army Aeromedical Policy Letter covering use of SSRIs. He had no follow up appointments with that provider; and though he did notice some improvement in his mood, he ended up discontinuing the medication after about four months because he experienced erectile dysfunction.

Since stopping the citalopram, TM had continued in a downward spiral, becoming more emotionally distanced from his wife and drinking more alcohol on a more frequent basis. Fortunately, he had not yet had any legal troubles as a result of his abuse; however, he was now experiencing anger management problems along with what he described as a "heightened state of anxiety." Things that he previously would have shrugged off or dealt with rationally now would get him agitated, and he described frequently "blowing up" over petty issues at home and at work. His anxiety had worsened so that it was now interfering with his sleep, and he was averaging only four hours of sleep a night. He described difficulty falling asleep and also problems with waking up in the middle of the night. He was unable to identify anything specific that he was worried about, but he described it as "always feeling on the edge."

Further questioning revealed that he had contacted his wife who had recommended that he seek professional counseling, and together they had been seeing a local civilian psychologist for the past month with noticeably positive results. His true reason for seeking further medical assistance was with regard to his flight status and his continued problems with lack of sleep and constant anxiety. Although he and his wife were attempting to reconcile their relationship and he was going on three weeks of abstinence from alcohol, he now had enough insight to realize that his self-destructive behaviors were still interfering with his performance as a pilot, and he was asking for a period of duties not to include flying "grounding" so that he could focus on restoring his mental health. TM said he was willing to consider medication at this point if it would be helpful.

Management of Case Two

TM's previous history of ED was associated with the use of medication. It has been suggested that as many as 25% of cases of ED are caused by medication side-effects.[8] Of note, SSRIs are well known to cause ED and ejaculatory dysfunction, and it is for this reason that male patients frequently discontinue use of SSRIs. TM did not recall being informed of this when he was prescribed citalopram; however, his ED may have been exacerbated by his abuse of alcohol which, when used in excess, is associated with decreased libido and ED. The flight surgeon recommended that TM strongly consider another trial of medication for treatment of his symptoms that were highly suggestive of PTSD. The patient was given the names of several prescription drugs, as he expressed an interest in doing some online research before trying any long-term medication. In the meantime, he was prescribed clonazepam to reduce his level of anxiety and aid in sleep. TM was counseled that clonazepam could cause decreased libido and had a high potential for abuse, and it was only to be for short-term use. He was given an unspecified period of grounding from aviation duty while his treatment plan was worked out.

Prior to his first follow-up appointment, TM's off-post psychologist was contacted. His record indicated that he had already been diagnosed with PTSD and was undergoing counseling; however, the psychologist agreed that TM would benefit from the addition of medication to his therapy. When TM returned to the clinic the following week, he reported that he had experienced significant improvement in his sleep and a decreased level of anxiety with the use of clonazepam. He agreed to a trial of escitalopram, but he was concerned that it too would cause ED. He and his wife had reinitiated sexual relations, and he did not want the medication to cause an additional stress in that aspect of their reconciliation, so he was given a limited supply of vardenafil to help alleviate his apprehension of starting the SSRI. His long-term follow-up has been significant for the discontinuation of clonazepam after reaching a therapeutic dose of escitalopram. TM has continued with individual and marital counseling, and he reports that he has experienced fewer problems with sexual dysfunction as a side-effect of this second SSRI.

Presentation of Case Three

Staff Sergeant NK is a 26 year-old married Caucasian male NRCM who reported to sick call and asked to see his battalion flight surgeon to discuss a sensitive matter. NK was known by the flight surgeon for several years, having been deployed to OEF and flown missions together on many occasions. In addition, NK had been treated by the same physician three years prior for an unrelated long-term medical issue that had taken several weeks of close contact to resolve. Prior to this visit, NK had been a jovial, energetic individual who felt free to carry on a spirited conversation with the flight surgeon during all previous encounters. However, during this appointment NK appeared despondent and much less energetic than his usual self. In an unusually quiet voice, NK explained that he was having problems "getting it

up" and he was worried that his wife would find him unappealing if he were unable to be intimate with her.

NK related that he still found his wife emotionally and sexually attractive, but for the past two months he had experienced difficulty in getting an erection when they attempted sexual intimacy. They had been unable to have sexual intercourse in at least six weeks because he could not achieve a firm enough erection, which was putting an unusual strain on their relationship. As a result, they were having difficulties communicating in other areas of their marriage. Until recently, they had gotten along fine, although he did mention that his wife had been complaining to him about his frequent deployments. From his recollection, he had been away from home for the majority of the previous year.

NK reported that he had frequently awoken with a full erection in the past month; however, he expressed a decreasing desire to initiate sexual relations with his wife as well as diminished interest when she was the one to initiate any sexual intimacy. He confirmed that he had been able to masturbate without difficulties, and he was not doing it too excessively as to interfere with sexual intercourse. Rather, he related that he found it hard to get in the mood for sex at all recently, which he had never experienced before. Other than a history of one episode of appropriately treated, sexually transmitted Chlamydia prior to his marriage, his past medical and surgical history was non-contributory. NK was not taking any prescription or OTC medication. His exam was unremarkable with normal male genitalia and a normal prostate.

Management of Case Three

NK's case of sexual dysfunction suggested both a decrease in libido and ED. His history and exam virtually ruled out a vasculogenic or neurogenic etiology. A hormonal cause could not be excluded although it was unlikely. To be certain, a serum thyroid stimulating hormone (TSH), testosterone, and prolactin were ordered. The physician offered to the patient that his sexual dysfunction could be an indication that he was experiencing psychological problems. At that point, NK revealed that he had recently been experiencing vivid dreams and nightmares of his experiences while flying in OIF and OEF. Intrusive thoughts had begun to distract him during the day making it difficult to relax. Because of this, he had seriously considered requesting a transfer to the unit's training company in order to spend more time at home with his wife. NK agreed to meet with a psychologist based on the recommendation of the physician who was concerned for a diagnosis of PTSD. At his follow-up appointment, he was informed that his lab results were within normal limits. NK stated that he had not made an appointment with a psychologist yet, but he would do so upon return from his next deployment, which was scheduled to begin the following week.

Presentation of Case Four

Staff Sergeant RD is a 32-year old married male caucasian NRCM who had been seen many times over the past six months for follow-up of his injuries sustained during a rotary wing aircraft mishap. His injuries from that incident included a ruptured intervertebral disc at L4-L5, chronic low back pain, bilateral lower extremity radiculopathy, and PTSD diagnosed by the unit psychologist. Orthopedic evaluation had recommended non-surgical management for the lumbar spine, and RD was being followed by both neurology and the pain clinic for continued problems with sciatica and paresthesias in both legs below the knee. Electromyography (EMG) had been non-diagnostic.

RD had been on several different prescription medications for management of his chronic pain and radiculopathy. Recently, his medications had included amitriptyline, meloxicam, and acetaminophen. He stated that for the past two months he had been using the amitriptyline infrequently and only when he had difficulty sleeping at night. He continued to see the unit psychologist on a regular basis for his diagnosis of PTSD. Although medication had been discussed, RD opted to try counseling by itself for the present. His symptoms had waxed and waned over the past six months, and his current issues included feelings of detachment, decreased range of affect, difficulty falling asleep, and increased irritability.

At one of his follow-up appointments, he was asked about any sexual problems he might be experiencing. At first RD avoided the issue, but when the physician explained that it was relatively common for patients with PTSD to experience sexual dysfunction, RD acknowledged that he had been having occasional difficulties in getting sexually aroused since the mishap had occurred. The problem was isolated to situations in which his wife attempted to initiate sexual intimacy. He described that he found it difficult to relax when she made advances. Instead, he felt "uptight" and "wound up", and he experienced the feeling that he wanted her to "back off." Most of the time, her attempts at intimacy were thwarted; however, on those occasions when it did lead to sexual contact, he related that it would take a long time for him to attain an erection; and that there were some times when it was not possible for them to

have sexual intercourse. Conversely, he made it clear that he did not experience any dysfunction when he was the one initiating the sexual behavior. So far, this had not been a major issue in their marital relationship, but he expressed concern that his wife might become discouraged by his repeated rejections of her sexual advances.

Management of Case Four

RD's case of sexual dysfunction was complicated by several factors. A history of trauma to the spinal cord made a neurogenic cause possible; however, this was not considered likely as RD was able to engage in normal sexual activity when he was the one making the advances. Also, he was taking a tricyclic antidepressant for radiculopathy, and this class of medication is commonly associated with decreased libido and ED. Finally, RD had been diagnosed with PTSD, which, as discussed, is often associated with sexual dysfunction. A thorough history and exam were able to eliminate a neurolgic etiology, and RD was advised to discontinue the amytriptyline in an attempt to eliminate a medication side effect as a cause. RD and the physician discussed his rejections of his wife's sexual behavior in the context of his increased irritability and his trouble unwinding. A brief explanation of human sexual physiology helped him to understand that arousal is mediated by parasympathetic activity which can be dominated by an imbalance of sympathetic activity common to patients with PTSD thus leading to sexual dysfunction. RD agreed that he and his wife would meet with the psychologist to discuss alternative methods of initiating sexual activity. The use of medication such as vardenafil was not recommended in this case since he was capable of engaging in normal sexual intercourse.

Discussion

Male sexual functioning consists of desire (libido), erection, ejaculation, and orgasm. A normal male sexual response requires an intricate interaction between vascular, neurologic, hormonal, and psychologic systems. Disorders of these systems can lead to sexual dysfunction in any of the four main components. The goal of the primary evaluation of the patient who presents with sexual dysfunction is to identify the medical or psychologic factors that may be contributing to the problem in order to guide treatment options. A thorough history is the most important aspect of the initial evaluation. In most cases, patients are willing to discuss sexual function and are relieved when healthcare providers address the topic. Dialogue can be facilitated by providing information about conditions commonly associated with sexual dysfunction followed by a question about the patient's specific situation, as in case four. Healthcare providers should use correct terminology, but should avoid excessively technical language. The patient should be encouraged to communicate which components of sexual function are problematic. A history of sexual dysfunction that suggests an organic etiology should be appropriately evaluated by physical exam with special attention given to the cardiovascular, neurologic, and genitourinary systems. Additionally, some basic laboratory studies may be indicated to include serum TSH, testosterone, and prolactin measurements as in case three. A psychologic etiology should be considered based on a history that suggests such, or if the exam and lab results are normal.

Sexual dysfunction is a pervasive problem in the population of combat veterans diagnosed with PTSD.[5,7] When a male patient complaining of sexual dysfunction is a young, healthy service member or veteran, the healthcare provider should consider that the problem is associated with a mental health condition. The patient should be asked open-ended questions about his deployment history, exposure to combat, and any experiences or events that involved either a threat to life or serious injury. The servicemember with symptom clusters of persistent re-experiencing of a traumatic event, persistent avoidance of stimuli associated with the event, and increased arousal is likely to have PTSD as in cases one and three. Conversely, the patient with a known diagnosis of PTSD should be questioned about sexual function as in case four. The use of a phosphodiesterase type-5 inhibitor medication such as vardenafil can provide some improvement in sexual function; although, that is not a cure for the underlying condition. The primary healthcare provider should recommend that the patient with symptoms of PTSD be evaluated and treated by a mental health provider if that has not occurred yet.

There are several possible explanations of how PTSD can either cause or lead to sexual dysfunction:

- Patients with PTSD often have a restricted range of affect, and experience feelings of detachment or estrangement from others. The patient in case two provides an illustration of this. Such symptoms can lead to diminished interest in sexual behavior and decreased sexual satisfaction.
- Alcohol abuse is a frequently reported co-morbid condition, and this in itself can be the cause of decreased libido and ED.
- Several classes of medications used to treat PTSD, such as SSRIs, are well known to have side-effects such as ED, delayed ejaculation, and anorgasmia.
- PTSD is an anxiety disorder. The imbalance of

adrenergic hormones found in patients with PTSD can interfere with relaxation which is essential to attaining and maintaining erectile rigidity, as seen in cases three and four.

This article presented four cases of SOF personnel who were seen in a primary care clinical setting and found to have sexual dysfunction in association with a mental health condition. Given that the estimated prevalence of PTSD in Soldiers returning from OIF may be anywhere from 10 to 20%, it is possible that there are many cases of undiagnosed PTSD in the SOF community. The perceived stigma of this diagnosis could be a potential barrier to seeking treatment. As an example, the patient in case two revealed that he had been seeing an off-post psychologist only after continued questioning, and he did not mention that he had already been diagnosed with PTSD. However, increased awareness of human sexual functioning and mass media advertisement of treatment for ED has reduced the barriers to healthcare for sexual dysfunction. Young, healthy male servicemembers may feel more comfortable seeking treatment for sexual problems than for symptoms of PTSD. The fact that a high percentage of combat veterans with PTSD report sexual problems should lead primary care providers to screen for PTSD in otherwise healthy patients who present with sexual dysfunction.

Authors Note: The cases are real; however, the ranks and initials used are factitious.

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MAJ Gregory Lang is a Senior Flight Surgeon and Dive Medical Officer. Previously, he was a OH-58D (Kiowa Warrior) pilot assigned to 82d Aviation BDE at Fort Bragg, NC. MAJ Graduate of USUHS in 2000, he completed his Master of Public Health degree in 2002, and completed his residency in aerospace medicine in 2004. He is currently assigned as a battalion flight surgeon with the Special Operations Aviation Regiment (Airborne).