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ORIGINAL ARTICLE

Sexuality in Surgically Treated Carcinoma Penis Patients and Their Partners

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Abstract Most common treatment offered to carcinoma penis patients is surgery. This results in not only mutilation of the genitals but also affects their sexuality. The treating physician fails to address the issue due to the paucity of the data in this regard. Hence, we decided to evaluate sexuality in these patients after surgical treatment for penile cancer. Most of the times, their partners also face problems of sex and sexuality, regarding which there is no literature. Hence, we decided to include their partners also in the study. We retrieved records of the patients who underwent surgical treatment for carcinoma penis at our institute. After obtaining ethical committee approval, they were invited along with their partners for personal interview. After obtaining written informed consent from each of them, they were administered sexual functioning questionnaire (SFQ). Sexuality was evaluated based on the scores obtained. Performance anxiety was reported by majority of these patients. Their sexual interest, arousal and desire remained almost intact with reduction in satisfaction more so in total penectomised patients. Though the partners had accepted the global reduction in sexuality as their fate, their interpersonal relationship remained little disturbed. The study reveals that sexuality is more than the sexual intercourse alone. Proper pre-operative counselling of these patients and their partners by the treating urologist helps better post-treatment adjustment with regards to sexuality in these patients as well as their partners.

Keywords Sexuality · Carcinoma penis · Total penectomy · Partial penectomy

Introduction

Penile cancer is one of the rare malignancies seen worldwide with India reporting one of the highest incidences [1]. Majority are treated with surgery, which ultimately results in mutilation [2–4]. Surgery has a dramatic effect on self-esteem and sexuality [5]. Sexuality is defined as the sum total of an individual's biological constitution, life experiences, knowledge, behaviour and attitudes, which is influenced by a myriad of physical, psychological, interpersonal and cultural factors [6]. Sexuality in most of the societies is restricted by community norms [7]. World Health Organisation (WHO) defines sexuality as a central aspect of being human throughout life that encompasses sex, gender identities and roles, sexual orientation, eroticism, pleasure, intimacy and reproduction. According to WHO, sexuality is experienced and expressed in thoughts, fantasies, desires, beliefs, attitudes, values, behaviours, practices, roles and relationships. While sexuality can include all of these dimensions, not all of them are always experienced or expressed. Sexuality is influenced by the interaction of biological, psychological, social, economic, political, cultural, legal, historical, religious and spiritual factors [8]. Human sexuality has numerous symbolic meanings to an individual, and it is important for the treating urologists to understand the human sexuality as he/she is treating diseases in relation to genitals such as penile cancer. Scarcity of literature on this subject makes it difficult to address such issues in our day to day practice. Hence, we decided to evaluate post-

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surgery sexuality concerns in carcinoma penis patients and their partners.

Materials and Methods

The records of patients who had undergone surgery for carcinoma penis at our institutes were retrieved. Ethical committee approval was obtained for evaluation of sexuality concerns post-surgery in these patients and their partners. After obtaining the written informed consent, the interview was conducted in the vernacular of the patients and their partners using sexual functioning questionnaire (SFQ). SFQ is a questionnaire validated at the Fred Hutchinson Centre, Seattle, in a study titled sexual function measurement and outcomes in cancer survivors and matched controls [9]. It consisted of sections pertaining to sexual interest, sexual desire, sexual arousal, sexual activity, sexual satisfaction, orgasm, masturbation and interpersonal relationship. Each answer was graded on scales 0, 1 and 2, with 0 indicating no sexual function, 1 indicating average sexual function and 2 indicating good sexual function (Table 1). Global sexual function was obtained by adding all section scores and dividing the total by number of sections (i.e. 9).

Results

As per our records, 12 patients had undergone surgery for carcinoma penis at our centre in last 6 years. These patients were in the age group of 38 to 74 years with 51.08 years being the average. Their partners were in the age group of 26 to

Table 1 Sexual functioning questionnaire

Sections	Questions	Scale
Sexual interest	1. Do you have sexual thoughts, urges, and fantasies?	Never = 0
	2. Do you have interest in sexual dreams or fantasy?	Occasionally = 1
	3. Do you engage in sexual dreams or fantasy?	Always = 2
	4. Do you have interest in sexual feelings or actions?	
Sexual desire	1. Do you have desire for touching, holding, hugging or kissing?	Never = 0
	2. Do you have desire for petting and foreplay?	Occasionally = 1
	3. Do you have desire for intercourse?	Always = 2
Sexual arousal	1. Are you aroused by dreams or fantasy?	Never = 0
	2. Are you aroused by touching, holding, hugging or kissing?	Occasionally = 1
	3. Are you aroused by petting and foreplay?	Always = 2
	4. Are you aroused by intercourse?	
Sexual activity	1. Do you engage in touching, holding, hugging or kissing?	Never = 0
	2. Do you engage in petting and foreplay?	Occasionally = 1
	3. Do you engage in mutual masturbation?	Always = 2
	4. Do you engage in intercourse?	
Sexual satisfaction	1. Do you have obtain pleasure from any forms of sex?	Never = 0
	2. Are you satisfied with sexual activity?	Occasionally = 1
		Always = 2
Orgasm	1. How often the orgasm is reached?	Never = 0, Occasionally = 1, Always = 2
	2. How intense are the orgasms?	Nonexistent = 0, Fairly satisfactory = 1, Extremely satisfactory = 2
	3. Do you have difficulty in having orgasms?	Never = 2, Occasionally = 1, Always = 0
Masturbation	1. Do you have desire to engage in masturbation?	Never = 0
	2. Are you aroused by masturbation?	Occasionally = 1
	3. Do you engage yourself in masturbation?	Always = 2
Relationship	1. Is there any conflict in relationship?	Never = 2, Occasionally = 1, Always = 0
	2. Do you communicate sexual desires?	Never = 0
	3. Are you satisfied with sexual relationship?	Occasionally = 1
	4. Is your partner satisfied with sex?	Always = 2
	5. Are you satisfied with warmth and intimacy?	
	6. Are you comfortable with touching, hugging, holding the partner?	

55 years with 37.92 years being the mean. Of the twelve patients, two had undergone total penectomy (Group 1), and ten had undergone partial penectomy (Group 2). The demographic profile of patients and partners in the two groups and the sexual function scores in various subsets according to the sexual function questionnaire are presented in Table 2.

Post-surgery, 11 out of the 12 patients were apprehensive of their sexual performance. All the patients with partial penectomy had intact masculine self image, which was lost in those with total penectomy. One of the patients who had undergone total penectomy experienced an orgasm like feeling by stimulating the penectomy scar at the root of the penis. The partners of the patients had accepted post-surgery effect on sexuality as fate. Only one patient had partner other than his wife post-surgery. This patient was passive partner in a same-sex relationship. The patients with total penectomy had more sexual interest as well as desire but less satisfaction compared to the patients with partial penectomy. Neither the patients nor their partners accepted masturbation as an instrument to obtain sexual satisfaction. In all these patients, their relationship with their partners was affected by the sexual dissatisfaction.

Discussion

Though the surgery for the penile cancer results in mutilation of genitals with a profound impact on sexuality, very few urologists are aware of the patients' post-treatment sexuality concerns. Often pre-treatment counselling of a patient will be based more on the doctor's belief than on reported data. No data exists regarding the effect on sexuality of the partners of those patients who undergo surgical treatment for penile cancer. We have compared the available literatures in this field with our study, and the comparative data are shown in the table below (Table 3).

These patients report marginal effect on the sexual interest, desire and arousal. But the anxiety of performance was seen in more than 90 % of our patients compared to 80 % according to Opjordsmoen S et al. [5], almost negligible according to D'Ancona et al. [10], 30 % according to Ficarra et al. [11] and 50 % according to Romero et al. [12]. Though psychosexual adjustment problems were reported by the patients in these studies (ranging from 6 to 35 %), no such problems were reported by our patients [5, 10–12]. Kieffer JM et al. [14] and Sedigh O et al. [13] have studied the effect of partial penectomy on sexual function in patients with carcinoma penis. They have reported very little impact of surgery on sexual desire, interest as well as arousal. All these studies have reported very little change in sexual satisfaction in the patients with partial penectomy as well as organ-sparing surgery, but we have found that there is definite reduction in the sexual satisfaction even in the patients with partial penectomy, but this was much less compared to the reduction in sexual satisfaction in patients with total penectomy. According to Kieffer et al. [14] and Sedigh O et al. [13] the reduction in sexual satisfaction is almost nil in patients treated with organ-sparing surgeries compared to those treated with partial

Table 2 Demographic parameters and the mean scores as per sexual function questionnaire (SFQ) subgroups with their abstract meaning

		Group 1 (Partial penectomy group)		Group 2 (Total penectomy group)	
		Patients	Partners	Patients	Partners
Mean age		51.4 years	38.8 years	49.5 years	33.5 years
Mean scores as per sexual function questionnaire subgroups with their abstract meaning	Sexual interest	1.05 (occasional)	0.83 (less than occasional)	1.25 (more than occasional)	1.25 (more than occasional)
	Sexual desire	1.02 (occasionally)	1.05 (occasionally)	1.33(more than occasional)	1.2 (more than occasional)
	Sexual arousal	1.2 (more than occasional)	1.08 (occasionally)	1.33 (more than occasional)	1.2 (more than occasional)
	Sexual activity	0.78 (less than occasional)	0.85 (less than occasional)	0.75 (less than occasional)	0.88 (less than occasional)
	Sexual satisfaction	0.72 (less than occasional)	0.90 (occasionally)	0.5 (much less than occasional)	0.5 (much less than occasional)
	Orgasm	1.60 (satisfactory)	1.05 (fairly satisfactory)	0.5 (less than satisfactory)	0.5 (less than satisfactory)
	Masturbation	0.52 (much less than occasional)	0.23 (almost never)	0.49 (much less than occasional)	0.5 (much less than occasional)
	Relationship	0.72 (fairly satisfactory)	0.74 (fairly satisfactory)	0.53 (less than satisfactory)	0.53 (less than satisfactory)

Table 3 Comparison between our data and the rest of the available literature

	Our study	Opjordsmoen S et al. [5]	D'Ancona et al. [10]	Ficarra et al. [11]	Romero FR et al. [12]	Sedigh O et al. [13]
Sample size	12	13	14	13	18	41
Age group (patients)	39–74 years	28–75 years	30–74 years	29–65 years	28–70 years	28–92 years
Median age (patients)	51.08 years	57 years	50.5 years	50 years	52 years	63 years
Age group (partners)	26–55 years	–	–	–	–	–
Median age (partners)	37.92 years	–	–	–	–	–
Total penectomy	2	4	0	2	0	0
Partial penectomy	10	9	14	11	18	12—wide local excision, 23—glansectomy, 6—partial amputation

penectomy. Most organ-preserving treatment modalities such as brachytherapy, laser ablation of the tumour etc. help the patients to retain their sexual function intact [15–17]. Global reduction in sexual function was moderate in total penectomised patients, with partial penectomy group having most of the sexual functions intact. This has been the case with the other studies as well. Opjordsmoen S et al. [5] reports that some of his patients preferred to choose treatment options with lower survival outcome if such a choice exists rather than remaining sexually impotent. This again highlights the need of pre-treatment counselling for the sexuality concerns of these patients prior to initiating a treatment modality, especially surgery. We found that, though the masculine self-image was affected in these patients, there was not much effect on their relationship with their partners. Similar results were reported by the other studies that were reviewed in this article.

Unfortunately, no studies are available, which have studied partner's adjustment to genital handicap of their husband. In our study, almost 60 % of the partners described post-treatment sexuality as satisfying, suggesting significant post-treatment adjustment in them. Almost all the patients and their partners engaged in sex, which was not necessarily intercourse always. This reinforces the fact that the human sexuality is a more complex entity and sexual intercourse is not the only factor that determines it. As such, it enables the person to feel complete and gives self-confidence to cope with the stress of life. Intimacy, attachment and feel of each other add to this wholesome feeling.

With the mainstay of treatment in carcinoma penis being surgery, which in most cases result in either the reduction in size or the total absence of the penis, it is important on the part of the treating urologist to understand the intricacies of the sexuality in these patients and their partners, which ultimately affect the quality of life in them. We feel any effort to understand this will definitely help us in treating these patients better. A bigger, multicenter longitudinal study in this aspect is most likely to bring out more and more unknown facts to the fore.

Study Limitations

Main limitation of our study is the sample size. However, the incidence of penile cancer is decreasing with the increasing standards of personal hygiene all over the world, resulting in less and less patients being detected with penile cancer. The additions of organ sparing approaches have definitely caused drastic reduction in the number of patients undergoing partial or total penile amputation. Hence, the number of patients undergoing surgery for penile cancer is also less, thus resulting in a small cohort. This was the main reason as to why we opted for a retrospective analysis rather than going for a time-bound prospective study.

Conclusion

Post-surgery, there is a marginal reduction in global sexual function in both patients and their partners, and this has effect on their interpersonal relationship as well. Patients suffer more from performance anxiety and loss of masculine image, but with the time, both the patients and their partners learn to satisfy each other with sexual activity, which need not always be the intercourse. It will be better if both the patients and their partners are counselled prior to the treatment in order to help them attain post-treatment sexual adjustment. As a treating urologist, it is in our interest to be aware of the post-treatment sexuality concerns of the patients and their partners, so that there will be adequate pre-treatment counselling.

Compliance with Ethical Standards Ethical committee approval was obtained for evaluation of sexuality concerns post-surgery in these patients and their partners. After obtaining the written informed consent, the interview was conducted in the vernacular of the patients and their partners using sexual functioning questionnaire (SFQ).

Conflict of Interest The authors declare that they have no conflicts of interest.

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