Chapter 8

Summary, future perspectives and conclusions
Summary

In Chapter 1, an overview is given on the intriguing relation between UI and female sexual function. This relation is addressed from an anatomical, clinical and health care point of view. The question was raised whether female sexual health care should be provided to women with urinary incontinence (UI).

Vaginal sling procedures may have a negative effect on sexual function due to damage to vascular and/or neural genital structures. Even though autonomic innervation of the clitoris plays an important role female sexual function, studies on the neuroanatomy of the clitoris focus only on the dorsal nerve of the clitoris (DNC). The autonomic pathway and its relationship to the clitoral bodies, urethra and vagina have not been addressed in detail. In Chapter 2 the neuro-anatomy of the clitoris, both somatic and autonomic, are reinvestigated and described to evaluate the potential risk of nerve damage during vaginal sling procedures.

Serially sectioned and histochemically stained foetal pelves were studied and three-dimensional reconstructions of the neuro-anatomy of the clitoris were prepared. Furthermore, two adult female hemipelvi were dissected, after the TVT and TVT-O procedure had been performed, to demonstrate the course of the DNC and the autonomic nerves from the IHP in relation to the slings. The results of this study showed that, given the course the DNC inferior to the inferior pubic ramus, it is at risk for iatrogenic injury after placement of a TVT-O. Furthermore, the autonomic innervation of the vaginal wall is disrupted by the TVT procedure, which could lead to altered lubrication-swelling response. Although preliminary results are shown, significant progress has been made in the field of female sexual anatomy and its representation.

Little is known about the impact of surgery for stress urinary incontinence (SUI) on female sexual function and available results are conflicting. The study in Chapter 3 aimed to clarify the impact of surgery for SUI on female sexual function. Data, collected from two studies evaluating sexual function in 136 sexually active women after placement of the TVT, the TVT-O or placement of the transobturator suburethral (TOT) tape, was analysed. A non-validated sexual questionnaire developed by Lemack, translated into Dutch, was mailed to all patients 3-12 months after the procedure. Compared with preoperative responses no significant changes postsurgical regarding frequency of sexual intercourse or satisfaction of sexual intercourse were observed, although a significant postoperative decrease in urinary coital incontinence (p<0.001) was found. Postoperatively, 29 women (21.3%) reported improved sexual intercourse and 8 women (5.9%) complained of a worsening. There was a significant higher rate of preoperative coital incontinence (86.2% women with coital incontinence) in the group of women who reported improved intercourse. (p=0.01) From this chapter, it can be concluded that women with coital incontinence show a significant higher improvement in sexual function after surgery for SUI compared to women without coital incontinence. This suggests that improvement in coital
incontinence results in improvement of sexual function. Therefore, coital incontinence is a prognostic factor for improvement of sexual function following incontinence surgery.

Several studies show that UI impairs women’s sexual functioning and sexual satisfaction. However, there is no scientific knowledge about the effects of UI on sexual functioning of the male partners. In Chapter 4, the sexual functioning, measured by a validated questionnaire, of both female patients with UI and their male partners is described. A total of 189 sexually active couples completed the questionnaires. 81 (42.9%) of the women had UI as main urological complaint. Differences were found between women with UI and those without. Women with UI have a lower overall sexual function (p=0.02), lower frequency of intercourse (p=0.02), more problems with communication (p=0.036) and more often show avoidance with regard to sexual activity. (p=0.002) Men with partners with UI showed a diminished overall sexual function (6.66 ± 1.53) compared to men with women without UI. (5.95 ± 1.22, p=0.001) Furthermore, comparison of subscales also demonstrate a lower frequency of intercourse (5.62 ± 2.00, 6.49 ± 1.96), less satisfaction (8.08 ± 2.79, 9.69 ± 3.63) and more erectile problems (6.01 ± 2.28, 6.87 ± 3.23) in men with partners with UI. (p=0.03, p=0.001, p=0.037) From these results it can be concluded that female UI correlates with their partners’ overall sexual functioning and sexual satisfaction. In addition, significant differences were found with regard to satisfaction with one’s sex life of a woman with UI and her partner.

There is a strong association between urological complaints and female sexual dysfunction (FSD). In this chapter, the results of a survey study are described in Chapter 5, which evaluates how Dutch urologists address FSD in their daily practice. A total of 186 complete surveys were returned. Of these 186, 10 respondents (5.5%) stated they ask each female patient for sexual function, 87.1% stated they ask for sexual function when a patient complaints about lower abdominal pain (87.2%), incontinence (75.8%), urgency or frequency (70.5%) or urinary tract infections (65.8%). Many respondents (40.3%) did not think FSD is meaningful in a urological practice. The majority of respondents (91%) underestimated the frequency of FSD in a urological clinic. Respondents who believed the frequency of FSD to be at least 30% tended to ask more often for sexual function than the rest of the group (p=0.08). This chapter shows that for the majority of the members of the Dutch Urological Association FSD is not part of routine urological practice. There is, therefore, a need for better education and training at both undergraduate and postgraduate levels.

Chapter 6 elaborates on chapter 5 and also evaluates the practices and believes of urologists, evaluated in a survey study. It is not known whether urologists are aware of the fact that there is a strong association between urological complaints and a history of sexual abuse (SA), especially in females, in their daily practice. A total of 68.8% respondents stated that they always ask their female patients about sexual abuse before doing the physical examination. Overall, 79.3% said to do so when a patient has certain urological complaints: 77.6% in case of lower abdominal
pain, 62.1% in urgency or frequency, 41.4% in incontinence, 29.3% in urinary tract infections, and 3.4% in hematuria. The majority of the respondents (74.3%) estimated the frequency of SA in their urological clinic to be equal or less than 10%. To conclude, nearly 70% of the responding Dutch urologists and residents asked their female patients about possible SA.

**Chapter 7** is an evaluation of the practices of health care providers; how continence nurses deal with sexuality and abuse in their daily practice. Of the 93 surveyed nurses, 11.8% did not ask their female patients about sexual function; 37.6% asked only rarely; 44.1% asked often and 6.5% always asked. Sexual functioning in males was not evaluated by the majority of the nurses (13.2% never, and 46.2% rarely). A minority of continence nurses asked males about sexual functioning (36.3% often and 4.3% always). Within their patient population, both male and female, 28% of the nurses never asked about SA and 49.5% asked only rarely.

Important reasons for not asking were insufficient knowledge of how to adequately ask males (38.9%) and females (47.8%) about sexual problems, and because nurses assumed the urologist had addressed this issue (48.1% asking males, 39.1% asking females). Particularly younger nurses found it difficult to raise both male and female sexual issues. (p=0.001 and p=0.003 respectively). Screening for sexual dysfunction was stated to be important by almost all nurses (65.2% 'quite important', and 31.5% 'very important').

The results of this survey demonstrate that Dutch urological incontinence nurses acknowledge the importance of sexual problems in their patient population, but consider asking about this issue not part of their routine care. The main reasons for not asking, according to the nurses’ responses, were that they had insufficient knowledge and assumed the urologist had already asked about sexual problems.

**Future perspectives**

In chapter 2 both somatic and autonomic pathways of the clitoris were described in detail and thereby, significant progress has been made in the field of female sexual anatomy and its representation. This may facilitate further research in the related fields of female sexual health and education and can be used by surgeons in the field of urogynecology. Furthermore, the topographic relation of vaginal slings to the important critical female genital structure, the clitoris, has been illustrated and described for the first time. Future (clinical) research should be performed to confirm these results and to investigate the consequences of injury to the clitoral nerves on the clitoral sexual response and female sexual functioning.

Chapter 3 was specifically designed to investigate the relevance of coital incontinence in the sexual function improvement following slings for stress urinary incontinence (1). Although the study had some biases, it is relevant and innovating and demonstrates that the most significant prognostic factor in the improvement of sexual function of these patients was the cure of coital
incontinence. What was described about coital incontinence can be just the tip of the iceberg: further larger prospective studies on this issue will be hopefully help to understand the real prevalence, the impact on quality of life, the pathophysiology, and the cure rate of this urinary and sexual symptom.

It is probable that several factors contribute to the FSDs of women who are incontinent, and that the psychological consequences of this distressing condition are as important if not more so, than coital incontinence itself. Studies investigating urge incontinence and sexuality suggest that women under 65 report being incontinent during intercourse at higher rates than women over age 65 (2-4). This finding may be related to more frequent or more vigorous activity among the younger age group or may indicate that younger women are often more troubled by urge urinary incontinence, which is harder to control during sex than stress urinary incontinence (2-4). Reasons for avoiding sexual intercourse in women with urinary incontinence include wetness at night, leakage during intercourse, embarrassment, and depression (5).

Longstanding urinary symptoms and sexual problems are, however, a source of appreciable morbidity and once established can become incorporated into an individual's lifestyle and personality. Therefore, the symptoms of FSD including coital incontinence should be investigated as fully as possible. Although the link between SF and pelvic floor disorders such as urinary incontinence has been established, the question remains whether awareness of this relationship has increased throughout the field of urogynecology. Urogynecologists are in a unique position to address SF as their work involves the care of the pelvic floor anatomy and function. Indeed, patients may be expecting or hoping SF issues become uncovered in conjunction with their visit (6). Despite this, the results in this thesis (chapters 5 and 6) suggest that both urologists and supporting nurses still have a long way to go to increase interest and attention to this issue. More consideration of these factors throughout the training process, increased attention to continuing education at conferences, and further promotion by national organizations will help to improve the awareness of this important matter. In addition, there is a need for collaborative work between urology, sex therapy, and urogynecology to focus clinical care and research efforts and to ensure appropriate care for their patients.

Conclusions

Why should the urologist play a role in managing FSD? Literature has pointed out several conditions of peculiar urological interest in which women's sexual health and FSD play a major role (4;7-16). In this scenario the urologist should play an active role with regards to FSD related to UI and LUTS, CPP, pelvic surgery for incontinence or malignancies.

This thesis underlines the significant role of the urologist in the management of female sexual dysfunctions, mainly in women with urologic disorders. Evaluation of the patient's partner and the impact of urological surgical procedures on sexual function have also been stressed.
Reference list


