DOI: 10.1111/1471-0528.14625 BJOG Exchange www.bjog.org

Re: Painful sex (dyspareunia) in women: prevalence and associated factors in a British population probability survey

Dyspareunia is a global public health problem!

Sir,

BJOG published a study by Mitchell et al.¹ that discusses very important articles about dyspareunia, an old and well-known female health problem. The study shows that one in ten British women has this condition, which implies a low quality of life for women from both sexual and social viewpoints. This subject has been discussed for more than 100 years, although apparently without a solution.

The importance of the study is to call the attention of health managers and professionals involved in women's care because this medical condition is associated with chronic pelvic pain, a real public health problem.

A study² on patients submitted to laparoscopy due to suspected endometriosis revealed the concomitant presence of chronic pelvic pain and dyspareunia in 56.8% and 54.7% of patients, respectively, implying public healthcare costs that could be minimised in about 50% of cases if the problem of dyspareunia were solved.

Mitchell et al. have reported a relatively high, 7.5%, prevalence of pain during sexual relations among sexually active women; however, this prevalence may be underestimated because the inclusion criteria for sexually active women comprised women that might be having sexual relations exclusively

without vaginal penetration. This fact may represent a bias regarding the prevalence of depth dyspareunia and consequently how sexual pain is understood as a whole.

Hence, the study in question may have minimised the true prevalence of sexual pelvic pain because it did not differentiate between superficial sexual pain and deep sexual pain, entities with different aetiologies for the cause of pain that require different approaches for the diagnosis and treatment of each condition.

There is no depth dyspareunia when nothing penetrates the vagina; hence, this condition necessarily implies penetration of the vagina by the penis, which may cause pain in the vaginal fundus due to size incompatibility.

It is easy to understand the incompatibility between the penis and the vagina since, according to Veale et al.3, the mean size of the erect male sex organ is 13.12 cm. According to a Brazilian study⁴, the stretched vagina measures 13 \pm 3 cm, a size that must correspond to that of any woman in the world. Hence, there is a group of women whose vagina measures 10-13 cm, and for them sexual contact with a penis longer than 13.2 cm causes pain due to maximum extension of their vagina. In addition, there is trauma that causes petechiae, microhaematomas, tissue rupture and ligament distension, as is the case for any person practicing sports who suffers injury to muscles and ligaments.

As the types and causes of dyspareunia are different, we suggest that the authors of this important study for the sexual health of women should conduct

a further study focusing on the different types of sexual pain and the different sexual practices.

References

- 1 Mitchell KR, Geary R, Graham CA, Datta J, Wellings K, Sonnenberg P, et al. Painful sex (dyspareunia) in women: prevalence and associated factors in a British population probability survey. *BJOG* 2017;124:1691–99.
- 2 Bellelis P, Dias JA Jr, Podgaec S, Gonzales M, Baracat EC, Abrão MS. Epidemiological and clinical aspects of pelvic endometriosis—a case series. *Rev Assoc Med Bras* 2010;56:467–71.
- **3** Veale D, Miles S, Bramley S, Muir G, Hodsoli J. Am I normal? A systematic review and construction of nomograms for flaccid and erect penis length and circumference in up to 15,521 men *BJU Int* 2015;115:978–86.
- **4** Matthes ACS, Zucca-Matthes G. Measurement of vaginal flexibility and its involvement in the sexual health of women. *J Women's Health Care* 2016;5:302.

Angelo do Carmo Silva Matthes^a & Gustavo Zucca-Matthes^b

^aUniversidade de Ribeirão Preto-UNAERP, Ribeirao Preto, SP, Brazil ^bHospital de Câncer de Barretos, Barretos, SP, Brazil

Accepted 8 February 2017.

DOI: 10.1111/1471-0528.14625

Authors' reply

Sir,

We thank Matthes and Zucca-Matthes for their comments on our paper^{1,2} and agree with them that this is a neglected aspect of women's health that requires greater focus on clinical outcomes through robust research. The aim of our prevalence study was to outline the

scale of the problem at a population level. The data come from the National Survey of Sexual Attitudes and Lifestyles; they are broad in scope and do not permit detailed investigation of clinical subgroups. Obtaining clinically sufficient information in the context of a population survey is rarely feasible due to small numbers in subgroups and the complexity of information required. In addition we cannot make the assumption that the deep and superficial dyspareunia framework correlates different pathologies as the experience of painful sex is complex and is dependent on a variety of physical reasons (e.g. lubrication, menopausal state, skin disease) as well as psychosexual factors. Matthes and Zucca-Matthes suggest that we may have underestimated the prevalence of painful sex by including women who might be having sex exclusively without vaginal penetration. They suggest that disproportion between penis and vagina size may be relevant and that this may be true for selected subgroups of patients (e.g. post-hysterectomy or women receiving vaginal radiotherapy) where is there is limited capacity and compromised function. However, for the majority of women without organic pathology, it remains unclear whether there is a correlation between penis size, vaginal capacity and overall experience. Having highlighted the problem of painful sex in our paper, we would welcome clinical teams to support research focusing on defining and improving clinical outcomes for these women.

References

- 1 Matthes ACS, Zucca-Matthes G. Re: Painful sex (dyspareunia) in women: prevalence and associated factors in a British population probability survey. Dyspareunia is a global public health problem!. *BJOG* 2017;124:1792.
- **2** Mitchell KR, Geary R, Graham CA, Datta J, Wellings K, Sonnenberg P, et al. Painful sex (dyspareunia) in women: prevalence and associated factors in a British population probability survey. *BJOG*, 2017;124: 1691–99.

Kirstin R Mitchell, a,b Rebecca Geary, c Cynthia A Graham, d Jessica Datta, a Kaye Wellings,^a Pam Sonnenberg,^c Nigel Field,^c David Nunns,^e John Bancroft, Kyle G Jones, Anne M Johnson, c & Catherine H Mercerc ^aCentre for Sexual and Reproductive Health Research, Department of Social and Environmental Health Research, London School of Hygiene and Tropical Medicine, London, UK ^bMRC/CSO Social and Public Health Sciences Unit, University of Glasgow, Glasgow, UK ^cCentre for Sexual Health and HIV Research, Research Department of Infection & Population Health, University College London, London, UK dCentre for Sexual Health Research, Department of Psychology, University of Southampton, Southampton, UK ^eDepartment of Gynaecology, Nottingham University Hospitals NHS Trust, Nottingham, UK ^fDepartment of Psychiatry, University of

Oxford, Oxford, UK Accepted 1 March 2017.

DOI: 10.1111/1471-0528.14626

Re: Dilute versus concentrated vasopressin administration during laparoscopic myomectomy: a randomised controlled trial

Sir,

I read with interest the article titled 'Dilute versus concentrated vasopressin administration during laparoscopic myomectomy: a randomised controlled trial' published recently.1 I congratulate the authors for addressing this very relevant question in the perioperative management of myomectomy. I would like to add my comments from an anaesthesiologist's perspective to improve patient safety. As affirmed by the authors, currently there is no consensus regarding the dose, dilution, and technique of administration. But largely, it is assumed that a dilute concentration of vasopressin will reduce complications related to intravascular injection.

Even the diluted vasopressin may cause a transient increase in pulse rate

and blood pressure. The authors did not define the adverse effects and also specifically did not mention any haemodynamic changes immediately after vasopressin injection. The significant (more than 20% of the pre-injection value) but transient elevation in haemodynamic parameters would not have been reported by the anaesthesiologist.² However, the concerned anaesthesiologist would have alerted the surgical team if there were any catastrophic complications such as bradycardia, severe hypertension, or tachycardia. This study would have been further thought-provoking if it had addressed haemodynamic parameters in detail.

Several reports have documented discomplications even when diluted concentrations were injected.3,4 In this study, patients with cardiovascular and pulmonary diseases were excluded. In this population, even a transient increase in haemodynamic parameters could be disadvantageous. In our centre, a dilute concentration is injected in small aliquots, pausing for 10-20 seconds between injections. The amount varies depending upon the operating surgeon, myoma size, and the patient's comorbidities. Hence, one should aim to avoid transient haemodynamic changes by choosing a dilute concentration of vasopressin injected frequently at short intervals.

References

- 1 Cohen SL, Senapati S, Gargiulo AR, S'rouji SS, Tuff FF, Solnik J, et al. Dilute versus concentrated vasopressin administration during laparoscopic myomectomy: a randomised controlled trial. *BJOG* 2017;124:262–8.
- **2** Pisat S, van Herendael B. Pisat's visual vasopressor injection needle: an innovative tool for increasing patient safety in laparoscopic myomectomy. *Surg Technol Int* 2017;30:815–9.
- **3** Hobo R, Netsu S, Koyasu Y, Tsutsumi O. Bradycardia and cardiac arrest caused by intramyometrial injection of vasopressin during a laparoscopically assisted myomectomy. *Obstet Gynecol* 2009;113:484–6.
- **4** Hung MH, Wang YM, Chia YY, Chou YM, Liu K. Intramyometrial injection of vasopressin