

Editorial

Pain can be reduced by the cooperation of surgeons and other participants



In this issue of the Journal, Kokanali et al¹ published an important article entitled “Impact of preprocedural anxiety levels on pain perception in patients undergoing office hysteroscopy”. This observational study enrolled 148 patients who underwent office hysteroscopy (OH). All patients had their anxiety levels assessed and scored using the Spielberger State–Trait Anxiety Inventory (STAI) questionnaire, which contains two components: STAI-T [i.e., trait (a general tendency to be anxious)], and STAI-S [i.e., state (situational anxiety)]. The authors investigated the effect of various clinical factors and preprocedural anxiety levels on pain perception in these women when they were treated with OH.¹ We commend the authors on the publication of this article, and feel it necessary to comment on its contents.

The authors reported that there were significantly positive correlations between in-hospital waiting time ($r = 0.599$, $p < 0.001$), procedure time ($r = 0.242$, $p = 0.002$), preprocedural trait-state levels (both $r = 0.68$; for both $p < 0.001$), and procedure-related pain [as assessed by the visual analog scale (VAS)] during OH.¹ In addition, at 60 minutes postoperatively, all aforementioned factors further showed a strongly positive correlation with the VAS.¹ However, there was one difference during the procedure and after the procedure: parity, which contributed to pain after OH but not during OH. Linear regression analysis identified that in-hospital waiting time was the most important factor contributing to a high VAS score during OH [odds ratio (OR), 0.475; $p < 0.001$], although other factors such as STAI-T score may also contribute. However, the VAS at 60 minutes postoperatively was associated with a strong correlation between the STAI-T score and procedure time. This suggests that pain perception is influenced by the procedure itself and by the environment or patient. This article contains other information and results that are intriguing and thus merit further attention.

First, a positive correlation has been well studied between the waiting time (i.e., the time from counseling about OH to the performance of OH) and the perception of pain. However, this information, which could otherwise assist practitioners and provide a benefit to patients, is often neglected in the routine of clinical practice. Carta et al² found that OH is associated with a level of anxiety that can affect a patient's tolerability of the procedure. A statistically significant positive

correlation was demonstrated between pain and the waiting time ($r = 0.45$; $p < 0.01$), but not with the values for the anxiety state ($r = 0.06$; $p = 0.56$) and the anxiety trait ($r = -0.05$; $p = 0.66$).² Pain with a score of 4 or greater was significantly associated with waiting time [60 minutes or more; OR, 5.21; 95% confidence interval (CI), 1.29–35.50].² Both findings suggest that reducing waiting time may have a positive effect on patient compliance, make hysteroscopy easier, and thereby increase its diagnostic and therapeutic potential.²

Second, pain is complicated. It is not easy to investigate because many autonomic systems such as the endocrine or nervous systems or psychosocial or even patient personality are interwoven into an often very subjective determination of pain level. Kokanali et al¹ used the standard STAI questionnaire and VAS to complete their study, although they failed to record the potentially more observationally objective items such as blood pressure and heart rate. Elevated blood pressure and an increased heart rate could be considered two of the most important objective parameters for a patient's response to pain. A recent publication from Italy suggests that music can be useful as a complementary method to control anxiety and reduce the perception of pain.² In this Italian study, Angioli et al³ also studied the relationship between STAI and VAS scores during and after OH. They found that women in the music group experienced significantly lower anxiety after OH, experienced less pain during the procedure, and had a significant decrease in the anxiety and pain scores after OH. However, the same study also showed changes in the autonomic system. They found that the women in the music group had a significantly lower systolic blood pressure and heart rate than the women outside of the music group.

Third, some changes in customary procedures or improvement in the instruments used for the procedure may be effective in reducing pain during or after procedures.^{4–8} For example, a medical team could try using a paracervical plexus block or local intracervical anesthesia because Agdi and Tulandi⁹ report that additional intrauterine anesthesia with 1% lidocaine significantly reduces pain sensation during OH. In addition, Pluchino et al¹⁰ found that a more delicate instrument such as a smaller instrument diameter (e.g., flexible hysteroscopy and minihysteroscopy) and a substantially more

experienced hysteroscopist significantly reduces the perception of discomfort during OH. All findings support the concept that “team work is needed for better care”¹¹ and “a delicate surgical method for treatment is welcome”,¹² and further question the old concept “is more radical more effective?”¹³

Conflicts of interest

The authors have no conflicts of interest to declare related to the subject matter or materials discussed in this article.

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