of women to the appropriate network of expertise’ described by Manakaya and Condous. We agree that transvaginal ultrasound might also be helpful, as suggested, to minimise under-diagnosis of the extent of endometriosis as can occur in some settings at laparoscopy.

However, the problem with transvaginal ultrasound is that its diagnostic accuracy is notoriously operator dependent. Vaginal examination and vaginal procedures must yield information that has the potential to change management because, although medical practitioners might consider these ‘non-invasive’ interventions, this is often not how they are perceived by women (for whom there may be a lengthy history of pelvic pain) who must undergo the diagnostic procedure. While the diagnostic accuracy of ultrasound in predicting ovarian endometriomas cannot be challenged, external validation is required of the studies that have assessed the accuracy of more sophisticated transvaginal ultrasound markers in diagnosing deep endometriosis (such as the ‘sliding sign’ described by Reid et al. (2013)). Such external validation must include the accuracy of ultrasound markers in predicting bowel or urinary tract endometriosis, findings that would substantially alter preoperative planning. Until these diagnostic accuracy studies have been externally validated, there remain questions about the generalizability of the transvaginal ultrasound signs as valuable routine diagnostic tools and their relative accuracy compared with other imaging techniques such as magnetic resonance imaging (MRI). Nonetheless, with appropriate ultrasonography expertise, we agree that there is a reasonable argument in favour of offering ultrasound in the diagnostic work-up of women with suspected endometriosis, especially when surgery is being considered, with the proviso that a negative ultrasound does not imply an absence of endometriosis.

References


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doi:10.1093/humrep/det347
Advanced Access publication on September 5, 2013

Sleep efficiency in patients with polycystic ovarian syndrome

Sir,

Shreeve et al. (2013) conducted a case-control study targeting urinary 6-sulfatoxymelatonin (aMT6s), 8-hydroxy-2-deoxyguanosine (8-OHdG) and sleep efficiency in 26 patients with polycystic ovarian syndrome (PCOS) using wrist actigraphy. As a main result, significantly lower sleep efficiency and higher aMT6s and 8-OHdG were observed in patients with PCOS.

I have some concerns regarding their study outcome. First, the prevalence of obstructive sleep apnoea (OSA) has previously been found to be higher in patients with PCOS (Nandalike et al., 2012; Randeva et al., 2012), partly caused by insulin resistance or by an endocrine disorder. I recommend that the authors check OSA as a sleep-related variable for patients with PCOS.

Secondly, short sleep duration and elongated sleep latency are significantly correlated with increased levels of anxiety and depression (Argyriou et al., 2011). I also reported that subjectively reported short sleep duration was significantly related to an increase in depressive episodes recorded by the Patient Health Questionnaire 9-item version (Kawada, 2012). As these two reports handled healthy subjects, emotional distress should be checked for patients with PCOS to speculate the relationship between poor sleep quality and PCOS.

Shreeve et al. (2013) conducted a survey using physiological apparatus to measure sleep efficiency and total sleep time. My third concern is the information of validation for wrist actigraphy. Actigraphy is an accelerometry and it does not reflect sleep status in the cases of insomniacs. Shreeve et al. used actigraphy, namely Actiwatch®, and the cut-off value of sensitivity for making a sleep/wake judgment was initially set at 40 counts per minute. As there was no description of the cut-off value, I suppose that this initial setting was used for their analysis. Strictly speaking, the cut-off value should be set according to each test situation by using sleep polysomnography as the gold standard.

As the number of samples is limited in the study of Shreeve et al. further study is needed to make a definite conclusion with satisfactory statistical power.

References


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doi:10.1093/humrep/det327
Advanced Access publication on September 17, 2013