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## Salpingo-oophorectomy at the Time of Benign Hysterectomy: A Systematic Review

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This systematic review of the literature on the controversial topic of salpingo-oophorectomy at the time of benign hysterectomy involved an extensive effort by a large group of experts; however, we are concerned about the overall philosophy of the review, and especially about the conclusions.<sup>1</sup>

Table 3 includes four recommendations in favor of bilateral salpingo-oophorectomy (BSO) and four against BSO, depending on the outcome of interest. Unfortunately, these recommendations are misleading because mortality has a greater effect on the decision for or against BSO than the risk of reoperation, the avoidance of a rare cancer (ovarian) or of pelvic floor disorders, and the reduction of pain and endometriosis. In Table 2, the authors list three studies considered of good quality for all-cause mortality. Two of the studies clearly showed an increased mortality after BSO.<sup>2,3</sup> The third study failed to show an increased mortality possibly because there was a long interval between the oophorectomy and the recruitment into the study (some women may have died before recruitment), the follow-up was short (7.6 years on average), the outcomes present at the time of recruitment were excluded (even though they may have developed after the oophorectomy), and the statistical power was inadequate, thus the study provided lower quality evidence.<sup>4</sup> In addition to increasing the risk of overall mortality, it has been recently shown that BSO may accelerate the aging process in all cells, tissues, organs, and systems of the body leading to increased morbidity. Evidence of accelerated aging comes from both biological markers (epigenetic clock) and from clinical measures (accelerated accumulation of multimorbidity).<sup>5,6</sup>

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In conclusion, an elective intervention that causes increased overall mortality and accelerated aging in the entire body is simply not an ethical option. The clinical recommendation should be simple and clear: In the absence of a documented high-risk genetic variant predisposing to ovarian cancer (eg, *BRCA* mutations), bilateral oophorectomy before the age of 50 years (or before menopause) is never to be considered and should not be offered as an option to women.<sup>5,6</sup> The possible alternative strategy of salpingectomy with ovarian conservation remains to be tested scientifically.

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