



Correspondence

The impact of morcellation on survival outcomes of undiagnosed uterine sarcoma



Dear Editor,

We greatly appreciate the interest of our colleagues for the paper (Raspagliesi et al., 2017). The study investigated the impact of morcellation in patients with uterine sarcoma undergoing surgery for apparent benign disease. In 2014, the U.S. Food and Drug Administration (FDA) issued a safety communication against the use of power morcellators in patients undergoing surgery for apparent benign uterine fibroids (Ottarsdottir et al., 2017). In fact, accumulating evidence suggested that morcellation worsens survival outcomes of patients affected by uterine confined sarcoma (Bogani et al., 2016; Bogani et al., 2015). These data were confirmed by a retrospective analysis of data collected from eight referral centers from of the MITO (Multicentre Italian Trialists in Ovarian Cancer and Gynecologic Malignancies) group (Raspagliesi et al., 2017).

Recently, several investigations highlighted that the utilization of minimally invasive surgery instead of open surgery might provide unfavorable outcomes for women undergoing surgery for uterine fibroids (Ottarsdottir et al., 2017; Siedhoff et al., 2017). Moreover, economic interests from several medical companies and the favorable cost/benefit ratio for most part of patients affected by benign fibromas still drive the choice to adopt morcellators into clinical practice.

As we reported in the introduction of the paper (Raspagliesi et al., 2017), the estimated incidence of uterine sarcomas in apparent benign uterine sarcoma is low, ranging from 0.014 to 0.45% across different series and meta-analyses (Raspagliesi et al., 2017). In our study the prevalence of uterine sarcomas is higher, being 2–3% of all patients. Although our paper had not an epidemiological purpose, the reason why we observed a higher incidence of uterine sarcoma is basically attributable to the centers included in our study. In fact, since these are all referral oncologic centers, we are more likely to operate patients with “suspected” (e.g., rapidly growing) or “big size” uterine fibroids, with respect to general practice hospitals where “unsuspected” myomas are treated. As we underlined in the discussion section of our paper, “studies focusing on patients undergoing surgery for ‘suspected’ uterine fibroids reported that leiomyosarcoma are diagnosed in about one out of four patients, thus suggesting that in patients with apparent benign uterine disease, the incidence of uterine sarcoma is < 1%” (Raspagliesi et al., 2017).

Naumann et al., questioned the relative advanced age of patients having uterine sparing procedure in our study. However, they referred to the age of patients having power morcellation (mean (SD) age: 43.6 (10.4)); while, the mean age of patients undergoing uterine-sparing procedure was 38.9 (4.0) years. The choice to have or not uterine removal might be influenced by several features, even in not very young women. Literature data report a significant increase all over the word of the first pregnancy age, and in particular in Italy about 10% of pregnancies occur at > 40 years (Marozio et al., 2017). Clearly, these data reflect our practice in Italy over the whole study period and do not pretend to have epidemiological implications or extended management suggestions for all women across the world.

Naumann et al., questioned our decision to evaluate 2-year oncologic outcomes, instead of performing a longer time period evaluation. As we reported in the material and method section, this choice reflects our willingness to provide a fair analysis of the measured outcomes given that most part of events occurred within the first 2 years and that the median follow-up is lower than 3 years. In our study, Kaplan-Meier and Cox models were used to estimate survival outcomes over the time. Censoring was used accordingly to the basis of statistics (Singh and Mukhopadhyay, 2011; Kleinbaum and Klein, 2012).

We observed that patients having morcellation are most likely to develop distant instead than local recurrences, probably because tumor manipulation may cause disease spread into the upper abdomen and via hematological and lymphatic vessels. However, as we already discussed in our study, we agree with the colleagues that larger prospective studies are needed to assess the long-term effects of morcellation in this subset of patients.

Lastly, they postulate that tumor manipulation and not power morcellation “per se” impacted on patients' outcomes. When analyzing our results, we had the same concern as our colleagues and this is the reason why we decided to separately analyze patients having power morcellation during laparoscopy or not power morcellation during open surgery thus concluding that power morcellation was the driver in the worsening of prognosis. As we already reported in the paper: “we can speculate that morcellation during open procedures was executed in more challenging cases (and probably in cases characterized by more advanced disease)” (Raspagliesi et al., 2017). As far as the evaluation of other prognostic factors possibly impacting on outcome, although several attempts were done to identify pathological characteristics influencing patients' prognosis, to date, no one has a documented impact on survival outcomes (Wang et al., 2011). In fact, in contrast to sarcoma arising into soft tissues, there is not a grading system for uterine leiomyosarcoma and all are classified as high-grade disease.

Obviously, we acknowledge that the inherent biases of the retrospective study design might influence the interpretation of our results even though they well match with data previously reported by other authors. We strongly believe that intra-abdominal morcellation, but not minimally invasive surgery, should be banned by routine clinical practice and that this alert should be discussed with patients at the time of counseling, particularly in “suspicious” myomas. Moreover, strategies to avoid intra-abdominal morcellation during minimally invasive surgery have to be

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implemented (Paul et al., 2016; Bogani et al., 2014; Venturella et al., 2016). At this regard we ask Naumann et al., thanks to their high skills and competence in the setting of minimally invasive surgery, to be active counselors in promoting strategies to improve patients' care through the development of tools able to make minimally invasive surgery safe in women with fibroids.

Disclosure

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