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An appraisal of the meta-analysis on the feasibility, acceptability, safety and efficacy of thermal ablation in the treatment of cervical cancer precursor lesions

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Dear Editor,

Randall et al. (Randall et al., 2018) in their recent article performed a systematic review and meta-analysis with the inclusion of 23 studies involving 6371 patients that showed that the overall cure rate for thermal ablation of biopsy proven CIN2+ was 93.8%. The authors commented that the advantages of thermal ablation were its ease of use, relative simplicity, safety and its effectiveness in treating cervical precancer. Their article was an update on the previous systematic review and meta-analysis of Dolman et al. published in 2014 (Dolman et al., 2014) that included 13 studies with 4569 women who had thermal ablation of the cervix. The findings of both systematic reviews and meta-analyses are relevant and clinically important as they address the issues of feasibility, acceptability, safety and efficacy of thermal ablation and can inform decision-making on how to treat women with cervical precancer.

However, in the article of Randall et al. it was reported that data on obstetrical outcomes after thermal ablation were limited (Gordon and Duncan, 1991; Cassidy et al., 1987; Williams et al., 1993). They identified studies dating prior to 1993 where no increased risks of adverse pregnancy outcomes were reported. Moreover, there were no reports on reproductive outcomes after use of thermal ablation from low-and-middle-income countries. In addition, Randall et al. quoted a Cochrane review of 2017 (Kyrgiou et al., 2017) which showed a greater risk for adverse reproductive outcomes with excisional than with ablative treatments for cervical intraepithelial neoplasia.

We would like to highlight that the reported Cochrane review of 2017 included studies on ablative techniques but did not provide obstetrical outcomes specifically in women after thermal ablation. Moreover, the systematic review of Randall et al. included our clinical study on the comparison of cure rates for women having had thermal ablation versus excisional cervical treatment for CIN2+ on biopsy (Papoutsis et al., 2017). This study involved 178 women with thermal ablation that were compared with 233 women with excisional treatment between 2010 and 2011. For this cohort of women we subsequently and retrospectively collected data on their reproductive outcomes for more than five years after cervical treatment (Papoutsis et al., 2018). In this latter study we identified 75 women with a pregnancy after thermal ablation and 86 women after excisional treatment. We found that women who had thermal ablation when compared to the general population had a higher rate of first trimester miscarriage (17.3% vs 7.96%) and spontaneous preterm births (6.7% vs 3.85%). When compared to excisional cervical treatment, women with thermal ablation had less spontaneous preterm birth rates in their subsequent pregnancy (6.7% vs 8.9%) and miscarried less frequently in the first trimester (17.3% vs 33.7%). These important findings we published in February 2018, which prevented them from being included in the systematic review of Randall et al. (Randall et al., 2018). Our findings suggest that thermal ablation might be more 'cervix friendly' when compared to excisional treatment as it is associated with less adverse reproductive outcomes (Papoutsis et al., 2018). Finally, we agree that further studies are needed so as to continue to gather evidence on the best practices and outcomes of thermal ablation on the cervix.

Declaration of interests

We declare that we have no competing interests.

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