Despite the vast development in assisted reproductive technologies (ART) during the last 30 years, live birth rates have remained low and, since the year 2000, rather stagnant. Researchers have postulated that endometrial non-receptivity may now be the main reason why even morphologically top quality embryos still frequently fail to implant.

The intricate dialogue between the embryo and endometrium is generally only possible during a specific timeframe of the secretory phase – the window of implantation. Previous studies have shown that there is a disruption of the natural endocrine function during ART caused by exogenous ovarian simulation, potentially hindering endometrial decidualization, function and receptivity.

Intentional endometrial injury, also referred to as “endometrial scratching,” is one among many adjuvant methods designed to enhance implantation during ART. This technique, first described in the animal model by Loeb in 1907, seems to potentially improve receptivity, albeit by unknown mechanisms.

Evidence deriving from randomized controlled trials, systematic reviews and meta-analyses moderately favour inducing local injury in women with recurrent implantation failure. However, these results have been a subject of much debate, with detractors pointing out methodological weaknesses in the presented data and a general lack of basic scientific evidence to prove a definite beneficial effect of endometrial scratching. Furthermore, the heterogeneity within the clinical trials performed thus far have further increased the controversy, since the method and timing of the endometrial scratching have varied greatly. Nonetheless, owing to the fact that endometrial scratching is so easy to use in daily clinical practice, many physicians have hastily applied this technique unselectively to their patients in all fields of reproductive medicine, including intrauterine insemination and frozen embryo transfers. This widespread use has generated the perfect storm which has pitted the proponents and the detractors of this technique even further from each other and from the current scientific knowledge all-together.

In this presentation, a review of the current evidence, gaps of knowledge and future prospects regarding the potential benefit of endometrial scratching will be provided.