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GENDER-AFFIRMING BILATERAL ORCHIECTOMY AS A STANDALONE PROCEDURE: DOES IT COMPROMISE SKIN GRAFTS AVAILABLE FOR LATER VAGINOPLASTY?
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Introduction: Gender-affirming penile inversion vaginoplasty is the gold-standard technique for creating a neovaginal canal. While bilateral simple orchiectomy (BSO) is typically completed intraoperatively with vaginoplasty, long wait times associated with vaginoplasty have highlighted pre-vaginoplasty BSO as a more immediate opportunity to mitigate gender dysphoria, decrease estrogen dosages, and completely eliminate antiandrogen hormone therapy. The impact of standalone BSO on later vaginoplasty is defined by a single study that associated BSO with a decrease in scrotal skin and a need for extragenital skin grafts—findings that have fueled hesitation around pre-vaginoplasty BSO.

Objective: Given that neovaginal depth is dependent on penile and scrotal skin available during vaginoplasty, this study aims to provide a detailed comparison of pre- and intraoperative skin graft measurements and postoperative neovaginal depth between patients who underwent BSO prior to versus concurrent with vaginoplasty.

Methods: A retrospective chart review identified all consecutive patients who underwent penile inversion vaginoplasty at a single institution. In addition to demographic characteristics, the following measurements of vaginoplasty skin grafts were collected and compared between groups: preoperative stretched penile length (measured from base to 1cm proximal to the glans ridge on gentle stretch), preoperative stretched scrotal skin length (measured on gentle stretch in two parts: from the penoscrotal junction to mid scrotum, then from midscrotum to mid perineum), and intraoperative scrotal skin tube length (defined as the amount of scrotal skin that could be harvested and tubularized on a metal dilator (Figure 1A)).

Results: A total of 57 patients completed penile inversion vaginoplasty between August 2017 and May 2023: 17(30%) completed pre-vaginoplasty BSO and 40(70%) BSO concurrent with vaginoplasty (mean age = 36.6 ± 12.6y and 37.4 ± 12.8y, p>0.05). Notably, there was no significant difference in length of preoperative scrotal skin or intraoperative tubularized scrotal skin grafts (Figure 1B). While pre-vaginoplasty BSO patients had less neovaginal depth (p<0.05), they also had significantly less preoperative penile skin (p<0.01).

Conclusions: Contrary to the previously described study, we found no between-group differences in scrotal skin measurements. Furthermore, zero patients required extragenital skin grafts to achieve mean neovaginal depth of 14.4±1.0cm, which approximates the average depth among studies reporting routine use of extragenital skin. Less neovaginal depth amongst BSO patients is expected, as this group had less penile skin available to line the canal. Findings from this study may help address patient and provider fears that BSO decreases scrotal skin available for later vaginoplasty, thereby lessening the decision-making burden of balancing the pros and cons of early BSO.

Disclosure: No.