## PSYCHO-PATHOLOGICAL EVALUATION AND SEXUAL HEALTH IN SUBJECTS WITH GENDER DYSPHORIA AFTER MALE-TO-FEMALE GENDER-AFFIRMING SURGERY: A COMBINED PSYCHOPHYSICAL AND SENSORY EVALUATION.

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Background and aims: In patients with gender dysphoria, few data are available concerning sexual function, including sensitivity and orgasmic receptivity, after male-to-female gender affirming surgery (GAS). Particularly, the functionality of the neural pathways that link genital sensitive areas to the brain and its correlation with subjective orgasmic sensations so far have not been fully explored. In this study we aimed to test electrophysiologically the integrity of the nervous pathways after GAS and to explore the relationship between genital sensitivity and self-perceived orgasmic intensity in Male to Female (MtF) patients after GAS.

Methods: we investigated six patients who underwent to GAS between 2016 and 2019 and we evaluated psychopathologically sexual health together with functionality of genital and pelvic neural pathways. A well-validated psychometric tool, the Orgasmometer, was administered to define the intensity of their orgasm. Genital sensory thresholds (at clitoral, vaginal and anal sites) was measured using pudendal nerve Somatosensory Evoked Potentials (pnSEPs). Results of these two measurements, subjective and objective, were then combined.

Results: pnSEPs measured sensitivity and proved the peripheral integrity of afferent sensory pathways from the genital area after GAS. Perceptual Threshold (PT) values were much lower at the neoclitoris compared to neovagina and anal sites. No correlation between Orgasmometer and pnSEP features at anal and neovaginal level was detected, while a trend was found at clitoral level. Discussion: Our data show that GAS in MtF transsexual people respects the peripheral integrity of some afferent sensory pathways, above all of the large-diameter afferent lemniscal neural pathways stemming from the genital area; the perceptual thresholds at neoclitoral level are much lower than at

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vaginal and anal level, seeming to parallel the subjective experience of orgasmic sensation. The same is not true for the other two sites. Most of the patients were satisfied with their sexual activity after GAS.

Conclusions: These findings could lead to a better understanding of post-surgical sexual life in MtF patients in order to improve surgical techniques that could focus more on functional aspects of neovagina and neoclitoris. PnSEPs may represent a good indicator of neural sensitivity, especially in neoclitoris. These measurements are consistent with the assessment of self-perceived orgasmic intensity.

References:

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