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## Tracing the Route of the Dorsal Nerve of the Clitoris

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### Abstract

## OBJECTIVE

Literature indicates an increasing number of complications following the labiaplasty procedure which is a surgery with a known problem of underreported and understudied long-term outcomes and complications such as loss of sensation in the female pudendum. The aim of this study was to determine the course and any variations of the dorsal nerve of the clitoris (DNC) after it pierces the perineal membrane to generate a surgical safe zone for procedures involving the female pudendum.

## METHODS

Cadavers from the University of Nebraska Medical Center, Creighton University, and Kansas City University anatomy labs were dissected for this study. A shallow vertical incision was made from the pudendal cleft superiorly through the mons pubis. The glans clitoris was identified and used as a landmark while the fascia surrounding the body of the clitoris was carefully removed. The DNC was located where it pierces the perineal membrane and traced distally. The following measurements were taken: 1. from the point where the DNC pierces the perineal membrane to the urethra, 2. from the point where the DNC pierces the perineal membrane to the pubic bone, 3. from the angle of the clitoris to where the nerve branches on the dorsum of the body of the clitoris and 4. from that branch point to the distal most portion of the glans clitoris. Any anomalous branching patterns were noted.

## RESULTS

Specific branching patterns were identified, mapped out and characterized into individual types. In addition to the patterns, the measurements described above were used to generate a surgical safe zone which can be used to avoid injury to the DNC during procedures involving the female pudendum. The variance was also calculated for each point of measurement to describe how much variation there is within a specific measurement to identify where the most caution is needed during surgery. Furthermore, it was determined if there were statistically significant differences between the right and left sides with regards to the nerve.

## CONCLUSIONS

The findings of this study have allowed the investigators to map out a surgical safe zone for procedures involving the female pudendum to avoid injury to the DNC. Furthermore, multiple anomalous branching patterns were identified and the frequency of those patterns were reported. This information should be useful to physicians performing procedures near the DNC. Some of the specimens displayed anomalous branching patterns which did not fit any of the other types identified and physicians performing procedures should be aware of those patterns as well.

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