Anatomic and technical considerations for optimizing recovery of sexual function during robotic-assisted radical prostatectomy.

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Abstract

PURPOSE OF REVIEW: Although cure of prostate cancer is the primary goal of radical prostatectomy, preserving erectile function is also tantamount, given the indolent clinical course of most prostate cancers, particularly low-risk disease. In order to optimize postprostatectomy erectile function during a robotic-assisted radical prostatectomy, there must be a detailed understanding of pelvic anatomy to recognize the optimal nerve-sparing plane and technical finesse to minimize stretch injury to the neurovascular bundle.

RECENT FINDINGS: The magnified, well-illuminated robotic-operative field coupled with less blood loss has paralleled greater understanding of the periprostatic 'fascial' planes, leading to differentiation of intrafascial versus interfascial nerve-sparing approaches. However, refinement of tissue handling during nerve-sparing to minimize lateral displacement of the neurovascular bundle and attenuate neurapraxia enables earlier and better recovery of erectile function.

SUMMARY: The critical maneuvers to preserving erectile function are atraumatic dissection of the prostate away from the optimal nerve-sparing plane to maximally preserve nerve fibers while minimizing neurapraxia. Therefore, attaining these principles involves a conceptual paradigm shift from 'radical' prostatectomy to neurosurgery of the prostate.

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