The discovery of the cavernous nerves and development of nerve sparing radical retropubic prostatectomy.

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PURPOSE: This review is of the events that led up to the discovery of the cavernous nerves and the development of nerve sparing radical retropubic prostatectomy. MATERIALS AND METHODS: The correspondence between Pieter J. Donker and Patrick C. Walsh, along with the publication folders describing the anatomy of the dorsal vein complex, pelvic plexus and cavernous nerves, and pelvic fascia, are reviewed. RESULTS: Serendipity had a major role in the fateful meeting of Pieter J. Donker and Patrick C. Walsh on February 13, 1981 when they dissected out the cavernous nerves in a stillborn male infant. During the next year intraoperative observations identified the capsular arteries and veins of the prostate as the likely microscopic landmark that could be used in the adult male pelvis to identify the microscopic cavernous nerves. Twenty-five years ago, on April 26, 1982, the first purposeful nerve sparing radical prostatectomy was performed. One year following surgery patient sexual function was normal, and 25 years later he has retained his quality of life and an undetectable prostate specific antigen. CONCLUSIONS: The events that led up to the first nerve sparing radical prostatectomy illustrate the influence of serendipity on discovery.