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LETTER TO THE EDITOR

# What is the role of Neurosafe in robotic radical prostatectomy?

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Diagnosis of prostate cancer is becoming increasingly more common. Very often, with younger and younger patients diagnosed, nerve sparing very often becomes a requirement. However, it is important not to compromise oncological clearance. The question is, can intraoperative frozen section guide management and improve oncological clearance?

The input of frozen section during robotic radical prostatectomy was first demonstrated with open surgery and was first investigated by Schlomm et al. [1]. Initially, positive surgical margins were detected in 25% resulting in secondary resection of tissue. This led to 86% having a negative margin [1]. However, the incidence of nerve sparing was significantly higher for all stages and positive surgical margin rates were lower, than when Neurosafe was not used. This study also found Neurosafe had no impact on biochemical recurrence and the biochemical-free survival of patients was no different than if this technique had not been used. This was also found to be an incredibly accurate technique—97% with a false-negative rate of 2.5%.

This technique was examined by Beyer et al. [2]. No complications were associated with this bilateral sampling of nerves. In fact, the nerve sparing rate increased significantly compared to without Neurosafe (97 vs 81%; pT2 99 vs 90%, pT3a 94 vs 74%, pT3b 91 vs 30%). Additionally, oncological clearance was also helped—the positive surgical margin rate decreased significantly with Neurosafe (overall 16 vs 24%; pT2 8 vs 15%, pT3a 22 vs 39%, pT3b 49 vs 67%; all $p < 0.05$) [2]. This demonstrates a significant benefit to patient care, not only oncologically, but also with nerve sparing benefit, even if none organ confined.

This was further examined by Adshead et al. [3]. This single-surgeon series reviewed including 120 Neurosafe procedures. The Neurosafe group examined had a greater proportion of D'Amico high-risk disease. Once this technique was introduced, more preoperatively potent men underwent bilateral nerve sparing with pT2 disease (84.6%, $p = 0.002$) and pT3 disease (65.1%, $p = 0.012$). Overall positive surgical margin (PSM) rates were lower in this cohort as opposed to non-Neurosafe techniques (9.2 vs 17.8%, $p = 0.04$). The 12-month potency rates were also higher in the Neurosafe cohort for both bilateral (77.3 vs 50.9%, $p = 0.009$) and unilateral (70.6 vs 40%, $p = 0.04$) NS [3]. Oncological follow-up showed no difference between Neurosafe and non-Neurosafe procedures.

These results together demonstrate Neurosafe allows potency, nerve sparing and oncological clearance even in higher risk patients. It also allows immediate verification of oncological clearance, increases nerve sparing procedures and allows for better oncological outcomes overall.

## Compliance with ethical standards

**Conflict of interest** SS Goonewardene and D Cahill have no conflicts of interest.

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