PE02

The neurovascular structure-adjacent frozen section examination (Neurosafe) approach to nerve sparing in robotically assisted laparoscopic prostatectomy (RALP): An update

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Arianayagam R.[1], Vasdev N.[1], Hampson A.[1], Agarwal S.[2], Narula A.[3], Lane T.[1], Adshead J.[1]

[1]Lister Hospital, Dept. of Urology, Stevenage, United Kingdom, [2]Lister Hospital, Dept. of Urology, Stevenage , United Kingdom, [3]Lister Hospital, Dept. of Pathology, Stevenage, United Kingdom

Introduction & Objectives: We have previously published our evaluation of the Neurosafe technique in our center, based on a single surgeon series. We present updated longer term functional and oncological outcomes and include a second surgeon's results.

Materials & Methods: We retrospectively analysed our prospectively maintained database of RALP patients from 2008 to December 2017. We compared 270 patients who underwent Neurosafe with 252 patients who underwent conventional nerve sparing (NS). We compared pre-operative pathological parameters, functional parameters and demographics. We also compared oncological outcomes including positive surgical margin (PSM) rates. We compared continence and potency rates between groups and for unilateral and bilateral nerve sparing.

Results: 20% of Neurosafe patients had pT3 disease vs 11% of NS patients. Neurosafe patients had better 12 month continence outcomes (93% vs 80%). With normal pre-operative erectile function, Neurosafe patients had a combined potency rate of 48% for unilateral nerve sparing (64.7% and 29% for surgeons 1 and 2 respectively) at 12 months or longer vs 34.6% for NS patients; and combined potency rates of 60% for bilateral nerve sparing (77.5% and 39% for surgeons 1 and 2 respectively), vs 44.6% for NS patients. Neurosafe PSM rates were lower at 14.4% vs 17.85 for NS patients.

Conclusions: Our longer term follow-up and larger series confirms that Neurosafe can be offered to higher risk patients and improves continence and potency rates beyond 12 months without affecting oncological outcomes.