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European Association of Urology

Letter to the Editor

Re: Giuseppe Simone, Umberto Anceschi, Gabriele Tuderti, et al. Robot-assisted Partial Adrenalectomy for the Treatment of Conn's Syndrome: Surgical Technique, and Perioperative and Functional Outcomes. Eur Urol 2019;75:811–6

We read with great interest the manuscript by Simone et al [1] describing their initial series of ten patients with unilateral aldosterone-producing adenoma who were treated with robot-assisted partial adrenalectomy (RAPA). We strongly agree that partial adrenalectomy is currently a safe and effective surgical treatment that is underused for such patients, and it allows preservation of residual functional adrenal parenchyma [2].

We believe that the authors should be commended for their preliminary data focused on a very specific topic that has recently been attracting interest and we congratulate them on their excellent results.

Over the past 3 yr we have performed six minimally invasive partial adrenalectomy procedures using a laparoscopic approach in five cases and RAPA (DaVinci Si, Intuitive, Sunnyvale, CA, USA) for one patient. All cases were performed by the same surgeon (F.G.), who is an expert in laparoscopy and robotic surgery. Since data comparing outcomes from laparoscopic and robotic surgery for partial adrenalectomy [3] are scarce, we would like to report some technical considerations on the basis of our initial experience.

Our RAPA used a surgical approach quite similar to the one described by the authors [1], while the laparoscopic cases were performed using a transperitoneal approach with the standard trocar placement used in laparoscopic adrenalectomy [4,5].

In our opinion, the advantages of using the robotic system are mainly related to its superior ease of movement, which translates into gentle isolation and mobilization of the adenoma and easier handling of the gland during tumor dissection. However, in contrast to partial nephrectomy, approximation of the adrenal margins through a sliding suture might be more challenging because of the difference in tissue between the two organs. The adrenal parenchyma appears to be more fragile and friable than the renal capsule and therefore the suture might damage the surrounding tissue, nullifying the previously mentioned advantages.

For the laparoscopic cases we used a SonoSurg ultrasonic device (Olympus Optical, Tokyo, Japan). The adrenal arteries are of small diameter and can be easily and safely sealed using this ultrasonic device. The adrenal parenchyma also responded well to this device, and simultaneous tumor excision and perfect cauterization of the surgical bed were achieved without the need to approximate the adrenal margins through running sutures. This might lead to a slightly shorter operative time and to better preservation of the integrity of the healthy tissue.

We suggest the use of ultrasonic devices with small jaws, which are handier and therefore ideal for performing enucleation of the adenoma in a limited space. Ultrasonic energy is not included by default in the DaVinci robotic system armamentarium. However, vessel sealers are available for the robotic platform and they might be ideal for RAPA as they can combine both the aforementioned advantages.

Lastly, regardless of the surgical details, excellent outcomes can be achieved with both laparoscopic and robotic techniques. In selected cases, partial adrenalectomy should be considered over total adrenalectomy, with the choice of technique guided by the surgeon's confidence.

Conflicts of interest: The authors have nothing to disclose.

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