

Editorial

New Concepts for Surgery of Adrenal Gland

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Since almost 30 years, laparoscopic adrenalectomy has rapidly become the standard of care to eliminate most adrenal masses. Multiple prospective studies show minimal morbidity, short convalescence and excellent cosmetic results compared to open surgery [1].

Nowadays Minimally invasive approaches for adrenocortical carcinoma seem to be associated with higher recurrence rates, particularly peritoneal recurrence [2]. For patients with known or suspected adrenocortical carcinoma, the oncological benefits of open resection outweigh the short-term benefits of minimally invasive surgery [3].

Partial adrenalectomy is indicated for patients with hereditary and bilateral adrenal tumors, partial adrenalectomy should be recommended as a primary surgical approach whenever possible [4]. Functional results show that steroid replacement is not necessary in the majority of patients with 85% of patients steroid free and local recurrence rates appear to be infrequent, overall rates of 85%.

LESS approach is demanding but feasible for small adrenal masses and offer better cosmetic results. When robotic system for LESS will be more available this approach might be more applicable [6].

Robotic adrenalectomy is a safe and feasible procedure with similar clinical

Outcomes as the laparoscopic approach. Robotic adrenalectomy was associated with longer operative time, no significant differences in hospital stay and blood loss. We can find controversial results in 3 meta-analyses where the differences were not clinically significant [7-9].

Indo-Cyanine Green Fluorescence is an emerging technology with more frequent use in laparoscopic and robotic. The technology offers real-time differentiation of tissues and identification of vascular structures, providing immediate guidance during both partial and total adrenalectomy [10].

Conventional laparoscopy certainly is the current standard of care for adrenal lesions with the exception of invasive adrenal carcinoma.

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