JS-5 : JUA/UAA/AUA/EAU Joint Session5

Application of Surgery for Elderly RCC Patients – How Far Should it Go?

Johannes Gutenberg University, Mainz, Germany
Joachim W. Thüroff, Frederik C. Roos

Introduction
Renal cell carcinoma (RCC) accounts for 3% of all adult malignancies and its incidence is steadily increasing at a rate of about 2.5% per year across the population groups. In the past decades, advances in imaging have succeeded in early diagnosing renal masses before the characteristic symptoms of an advanced renal tumor arise. More than 70% of these renal masses are <7 cm (cT1) and about 20% of tumors <4 cm (cT1a) are benign. Since RCC is neither sensitive to radiotherapy nor to chemotherapy, surgery is the mainstay of treatment. Radical nephrectomy (RN) has been the gold standard for many decades with nephron-sparing surgery (NSS) becoming an alternative since the 1980s for an increasing number of early detected, incidental, small tumors. More recently, thermal ablation as cryoablation (CA) or radiofrequency ablation (RFA) have become alternatives for small tumors <4 cm (cT1a).

Recent findings
Therapeutic options such as radical nephrectomy, nephron-sparing surgery, cryoablation, radiofrequency ablation and active surveillance (AS) are reviewed, specifically for oncological and functional outcomes in patients >65 years and in octogenarians as compared to younger patients. From our own material of 1625 patients with a solid renal mass suspicious for RCC, 62 patients (4%) were older than 80 years and underwent either RN (73%) or NSS (27%). In these 62 patients, median OS was 7.4 years, CSS was 85% at 5 years. Serum creatinine level rose from 1.0 to 1.4 mg/dL after RN and from 1.1 to 1.2 after NSS. In regard to complications, there was no difference as compared to younger patients. CA and RFA have evolved as treatment alternatives for tumors <4 cm (cT1a) in elderly patients, who are not fit or unwilling to undergo surgery with superiority of oncological results of CA as compared to RFA from the available data. A slow tumor growth rate is used as a reasonable argument for AS despite an unpredictable metastatic potential of even small tumors without prior growth.

Summary
Open and laparoscopic RN and NSS (if laparoscopic, preferably as robotic-assisted procedure) are safe and well tolerated in elderly patients, with low perioperative morbidity and good overall survival rates, even in octogenarians. Long-term results for thermal ablation techniques are still missing for this age group. Patients should be carefully selected for one of the surgical treatments according to their health, fitness, estimated life expectancy, patient’s preference and the expertise of the referral center in respective surgical techniques.