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Open to Debate For

Conservative Treatment for Upper Urinary Tract Urothelial Carcinoma

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The tendency to opt for kidney-sparing treatment (KST) for upper tract urothelial carcinoma (UTUC) is increasing. Accepted conservative treatments are segmental ureteral resection and endourological approaches, which include distal ureterectomy and retrograde ureteroscopy/percutaneous access [1].

The reason why this management approach is gaining in popularity is because of its lower morbidity and similar oncological outcomes (cancer-specific and overall survival) to those of radical nephroureterectomy (RNU) for patients with low risk and select patients with an imperative indication such as a solitary kidney or serious renal insufficiency [2–7], for whom KST is the preferred approach according to the European Association of Urology (EAU) guidelines [1]. However, KST can also be offered to a subgroup of patients currently considered at high risk, such as patients with a large (>1 cm), multifocal, low-grade UTUC [5,8]. Most of the recent literature emphasizes that these characteristics do not represent absolute contraindications for a conservative approach, which is why we can safely proceed with a purely endoscopic treatment immediately followed by stringent follow-up [5,8]. Furthermore, good short-term (median 22–52.4 mo [5,8]) and long-term (median 75.12 mo [7]) oncological outcomes without significant complications have been reported.

Interestingly, it has been demonstrated that tumor grade is strongly related to disease progression, meaning that unlike low-grade UTUC, high-grade UTUC has lower progression-free survival (PFS) [5]. A PFS rate of 93.2% has recently been reported for low-grade UTUC treated conservatively [8]. The most important factor for success following accurate patient selection for this approach is rigorous postoperative follow-up. Patients treated conservatively require not only regular cystoscopy to rule out possible bladder tumor recurrence but also systematic endoscopic control of the ipsilateral upper urinary tract because of the highly variable UTUC recurrence rate [4]. A "second look" at 6-8 wk after primary endoscopic treatment is mandatory to check for possible tumor persistence or recurrence (up to 50%), which helps in better characterizing the aggressiveness of the disease and achieving an adequate risk stratification [4,9]. It is important to note that the risk of local recurrence is the main concern with conservative treatments for noninvasive lowgrade UTUC. Contrary to what many believe, tumor location (kidney vs ureter-only tumors) is a predisposing factor for local recurrence rather than a marker for disease progression. This is why tumor location should not rule out conservative treatment [8]. Moreover, another strong point in favor of KST is that it salvage RNU in cases of recurrence provides similar outcomes to immediate RNU for patients with low-grade disease [7].

Another reason why KST is preferable to RNU in selected patients is the lower morbidity, specifically by preserving the glomerular filtration rate and delaying the possibility of

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developing complications such as chronic kidney disease. Most patients who undergo radical procedures develop at least moderate chronic kidney disease after RNU [6– 8]. Moreover, in terms of cost-effectiveness, some publications indicate a real cost benefit for well-selected patients [6].

Although the role of adjuvant chemotherapy or immunotherapy instillations in the upper urinary tract has been a matter of controversy, a thermoreversible hydrogel formulation of mitomycin C (Jelmyto, UroGen Pharma, New York, NY, USA) was approved in 2020 by the US Food and Drug Administration. This new drug seems to be promising according to results for patients with low-grade UTUC, in whom it was efficient in eradicating the disease. Hence, it may become a possible suitable alternative in KST [10].

Arriving at the correct diagnosis is of central importance before making decisions on surgical or conservative treatment. For patients with low-grade noninvasive UTUC, KST appears to be adequate and the best option without compromising oncological results or kidney function. Nonetheless, conservative management can also be offered to patients with high-grade tumors presenting with an imperative indication. Stringent follow-up after the intervention is the key element to success.

Conflicts of interest: Olivier Traxer is a consultant for Coloplast, Rocamed, Olympus, EMS, Boston Scientific, and IPG. Mariela Corrales has nothing to disclose.

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