

Editorial referring to the paper: Sobczyński R, Gołąbek T, Przydacz M, et al. Modified technique of cavoatrial tumour thrombectomy without cardiopulmonary bypass and hypothermic circulatory arrest: a preliminary report. *Cent European J Urol.* 2015; 68: 311-317.

The minimal access technique for cavoatrial renal cancer thrombectomy – should it be used in all cases?

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As it is well known from worldwide literature, an aggressive surgical approach is the most effective therapeutic option in patients with renal cell carcinoma at any level of tumor thrombus and offers a reasonable long-term survival results [1]. Even cytoreductive surgery appears to be beneficial for patients with metastatic disease, especially when consecutive therapy is performed. Nevertheless, doubts still remain concerning the best approach for surgical treatment of these patients. Minimal access techniques resulted in significantly shorter operating time compared with traditional median sternotomy [2].

The authors [3] presented a relatively small cohort of patients treated with a modified technique of cavoatrial thrombus removal without the need of cardiopulmonary bypass and hypothermic circulatory arrest. First of all, the technique with the use of Fogarty-like Foley catheter was previously described [4]. The safety of the presented method is definitely debatable and based on rather limited experience shown in the manuscript. As a consequence, it cannot be widely adopted without caution, as it can be highly morbid. There is always a risk of thrombus adherence to the atrial endocardium, which cannot be easily disintegrated. Furthermore, these manoeuvres can result in the sudden rupture of the distal part of the thrombus, forming a life-threatening embolus; in this case, the only solution would be an immediate open intrathoracic embolectomy via sternotomy approach. Hence, in the reviewer's opinion, the technique using a Fol-

ey catheter cannot be implemented in all cases. Additionally, the literature does not provide the answer in which particular cases this technique could be applied [5]. Most probably, the technique as described should be reserved for cases with "free atrial tail" of the thrombus documented on imaging studies. Of special value at the time of catheter insertion was the transoesophageal echocardiography (TOE) [3]. Now, magnetic resonance imaging has become the gold standard for assessing the level of IVC thrombus when diagnosing the patient [8], but during surgery, TOE enables real-time visualization of the thrombus. Unexpectedly, the reported blood loss as it exceeded mean 3000 ml, seems to be relatively high in comparison to published data e.g. median 2500 ml in [6] or average 1300 ml (750–2500) in [7]. The presented follow-up period is rather short, therefore no oncological results can be obtained, especially as far as radically treated patients (n = 3 out of all 4) are concerned. The paper documents a continuous search for an optimal surgical approach, just as the earliest publication about the use of an aortic occlusion balloon to reduce inflow at the time of thrombectomy [9], or most current publications about successful robotic level III inferior vena cava thrombectomy [10, 11].

In summary, the paper represents an interesting concept of a multidisciplinary approach and should be considered as a valuable option for surgical treatment of inferior vena cava tumor thrombectomy without thoracotomy.

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