

CADTH RAPID RESPONSE REPORT: SUMMARY OF ABSTRACTS

Kidney Transplant with a Tumorectomized Kidney: Comparative Clinical Effectiveness

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Research Questions

1. What is the clinical effectiveness of kidney transplantation with a tumorectomized kidney?

Key Findings

One systematic review was identified regarding the clinical effectiveness of tumorectomized kidney transplants for patients who require a kidney transplant.

Methods

A limited literature search was conducted on key resources including PubMed, The Cochrane Library, University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. No filters were applied to limit the retrieval by study type. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2012 and May 3, 2017. Internet links were provided, where available.

Selection Criteria

One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.

Table 1: Selection Criteria

Population	Patients who require a kidney transplant
Intervention	Tumorectomized kidney transplant
Comparator	Ongoing dialysis Healthy kidney transplant
Outcomes	Clinical effectiveness, survival, hospitalization, quality of life, cancer occurrence
Study Designs	Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies

Results

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials and non-randomized studies.

One systematic review was identified regarding the clinical effectiveness of tumorectomized kidney transplant for patients who require a kidney transplant. No relevant health technology assessments, meta-analyses, randomized controlled trials, or non-randomized studies were identified.

Additional references of potential interest are provided in the appendix.

Overall Summary of Findings

One systematic review¹ was identified regarding the clinical effectiveness of tumorectomized kidney transplants for patients who require a kidney transplant. This publication reviewed the literature and identified 20 case report and case series studies describing the effectiveness of transplantation of donor kidneys after resection of small renal cancer. A total of 97 cases of tumour resection followed by transplantation were included in the review. The authors concluded that the use of tumorectomized kidney transplant is associated with a relatively low cancer recurrence rate.¹

References Summarized

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-Analyses

1. Yu N, Fu S, Fu Z, Meng J, Xu Z, Wang B, et al. Allotransplanting donor kidneys after resection of a small renal cancer or contralateral healthy kidneys from cadaveric donors with unilateral renal cancer: a systematic review. *Clin Transplant*. 2014 Jan;28(1):8-15. [PubMed: PM24118586](#)

Randomized Controlled Trials

No literature identified.

Non-Randomized Studies

No literature identified.

Appendix — Further Information

Previous CADTH Reports

2. Testing of tissue donors for infectious diseases: Guidelines [Internet]. Ottawa (ON): CADTH; 2017 Jan 30. (Rapid response report: reference list). [cited 2017 May 9]. Available from: <https://www.cadth.ca/testing-tissue-donors-infectious-diseases-guidelines-0>

Systematic Reviews and Meta-Analyses

No Comparator

3. Xiao D, Craig JC, Chapman JR, Dominguez-Gil B, Tong A, Wong G. Donor cancer transmission in kidney transplantation: a systematic review. *Am J Transplant* [Internet]. 2013 [cited 2017 May 9]; 13(10): 2645-2652. Available from: <http://onlinelibrary.wiley.com/doi/10.1111/ajt.12430/full>

Non-Randomized Studies

Alternate Intervention – Tumour Resection Not Specified

4. Pandanaboyana S, Longbotham D, Hostert L, Attia M, Baker R, Menon K, et al. Transplantation of liver and kidney from donors with malignancy at the time of donation: an experience from a single centre. *Transpl Int*. 2016 Jan;29(1):73-80. [PubMed: PM26402442](#)

No Comparator

5. Lugo-Baruqui JA, Guerra G, Chen L, Burke GW, Gaithe JA, Ciancio G. Living donor renal transplantation with incidental renal cell carcinoma from donor allograft. *Transpl Int*. 2015 Sep;28(9):1126-30. [PubMed: PM25898787](#)
6. Ogawa Y, Kojima K, Mannami R, Mannami M, Kitajima K, Nishi M, et al. Transplantation of Restored Kidneys From Unrelated Donors After Resection of Renal Cell Carcinoma: Results From 10 Patients. *Transplant Proc*. 2015 Jul;47(6):1711-9. [PubMed: PM26293039](#)
7. He B, Mitchell A, Lim W, Delriviere L. Restored kidney graft from urologist referrals for renal transplantation. *Transplant Proc*. 2013 May;45(4):1343-6. [PubMed: PM23726568](#)
8. Musquera M, Perez M, Peri L, Esforzado N, Sebastia MC, Paredes D, et al. Kidneys from donors with incidental renal tumors: should they be considered acceptable option for transplantation? *Transplantation*. 2013 May 15;95(9):1129-33. [PubMed: PM23416686](#)
9. Melgosa Hijosa M, Alonso Melgar A, Martinez Urrutia MJ, Garcia Meseguer C, Jaureguizar Monereo E, Navarro Torres M. Living-donor transplantation after excision of unrecognized renal cancer diagnosed after transplant. *Pediatr Nephrol*. 2012 Dec;27(12):2319-21. [PubMed: PM22806562](#)

10. Valente M, Furian L, Rigotti P. Organ donors with small renal cancer: report of 3 cases. *Transplant Proc.* 2012 Sep;44(7):1846-7.
[PubMed: PM22974852](#)

Review Articles

11. Lugo-Baruqui A, Guerra G, Arocha A, Burke GW, Ciancio G. Use of Kidneys with Small Renal Tumors for Transplantation. *Curr Urol Rep.* 2016 Jan;17(1):3.
[PubMed: PM26695405](#)
12. Frasca GM, D'Errico A, Malvi D, Porta C, Cosmai L, Santoni M, et al. Transplantation of kidneys with tumors. *J Nephrol.* 2016 Apr;29(2):163-8.
[PubMed: PM26588915](#)
13. Giessing M. Donors with malignancies-risk or chance? *Transplant Proc.* 2012 Jul;44(6):1782-5.
[PubMed: PM22841272](#)