Progrès en urologie (2017) **27**, 166—175

Disponible en ligne sur ScienceDirect www.sciencedirect.com

Elsevier Masson France EM|consulte www.em-consulte.com

ORIGINAL ARTICLE

Prostate cancer before renal transplantation: A multicentre study

Cancer de prostate avant transplantation rénale : étude multicentrique

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Received 8 August 2016; accepted 24 January 2017
Available online 23 February 2017

KEYWORDS
Prostatic neoplasms;
Kidney transplantation

Summary
Introduction. — The surgical issues of renal transplantation (RT) after localized prostate cancer (PC) treatment and oncological outcomes after transplantation in patients on the waiting list with a history of PC were unknown. We conducted a retrospective multicentre study including all patients with PC diagnosed before the kidney transplantation.

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http://dx.doi.org/10.1016/j.purol.2017.01.001

Methods. — Fifty-two patients were included from December 1993 to December 2015. The median age at diagnosis of PC was 59.8 years old.
Results. — The median PSA rate at diagnosis was 7 ng/mL. Twenty-seven, Twenty-four, and one PC were respectively low, intermediate and high risk according to d'Amico classification. Forty-three patients were treated by radical prostatectomy (RP): 28 retropubic, 15 laparoscopic and 3 by a perineal approach. Eighteen patients had a lymph node dissection. Four patients were treated with external radiotherapy and 2 by brachytherapy. Eight patients underwent radiotherapy after surgery. The median time between PC treatment and RT was 35.7 months. The median operating time for the renal transplantation was 180 min (IQR 150—190; min 90—max 310) with a median intraoperative bleeding of 200 mL (IQR 100—290; min 50—max 2000). A history of lymphadenectomy did not significantly lengthen operative time ($P = 0.34$). No recurrence of PC was observed after a median follow of 36 months.
Conclusion. — PC discovered before RT should be treated with RP to assess the risk of recurrence and decrease waiting for a RT. If the PC is at low risk of recurrence, it seems possible to shorten the waiting time before the RT after a multidisciplinary discussion meeting.
Level of evidence.— 4.

MOTS CLÉS
Cancer de prostate ;
Transplantation rénale

Résumé
Introduction. — Les difficultés chirurgicales de la transplantation rénale (TR) après traitement d'un cancer de la prostate localisé (CP) et les résultats oncologiques après la transplantation sont mal connus. Nous avons mené une étude multicentrique rétrospective incluant tous les patients atteints de CP diagnostiqués avant la transplantation rénale.
Méthodes. — Cinquante-deux patients ont été inclus rétrospectivement de décembre 1993 à décembre 2015. L'âge médian au diagnostic de CP était de 59,8 ans.
Résultats. — Le taux de PSA médian au diagnostic était de 7 ng/mL. Vingt-sept, Vingt-quatre et un CP ont été respectivement classés faible, intermédiaire et à risque élevé selon la classification de d'Amico. Quarante-trois patients ont été traités par prostatectomie radicale (PR) : 28 voie rétropubienne, 15 laparoscopique et 3 par une approche périnéale. Dix-huit patients ont eu un curage ganglionnaire. Quatre patients ont été traités par radiothérapie externe et 2 par curiethérapie. Huit patients ont eu une radiothérapie après la chirurgie. Le délai médian entre le traitement du CP et la TR était de 35,7 mois. Le temps opératoire médian de transplantation rénale a été de 180 min (min 90—max 310) avec un saignement médian de 200 mL (min 50—max 2000). Un antécédent de curage ganglionnaire n'a pas statistiquement allongé le temps opératoire ($p = 0,34$). Aucune récidive de CP n'a été observée après un suivi médian de 36 mois.
Conclusion. — Le cancer de prostate découvert avant la TR doit être traité préférentiellement par PR pour évaluer le risque de récidive et diminuer l'attente d'une TR. Si le PC est à faible risque de récidive, il semble possible de raccourcir le temps d'attente avant la TR.
Niveau de preuve.— 4.

Introduction

Renal transplantation is classically described as the best treatment of chronic renal insufficiency. Despite the use of new induction therapies by monoclonal antibodies and new immunosuppressive therapies, such as mTOR inhibitors, cancer risk among renal transplant recipients remains significant. The literature gives evidence that even if aggressive forms of prostate cancer (PC) in renal transplant recipients (RTR) are not greater, incidence and rate of locally invasive forms were higher compared to the general population [1]. Diagnoses are made earlier, around 60 years of age [1]. A pre-transplant check-up is thus fundamental to detect a latent cancer. The American Society of Transplantation recommends PSA measurement in addition to digital rectal examination (DRE) in men over 45 before registration on the waiting list [2]. This systematic screening leading to a diagnosis of PC as reported in the literature means that only curative treatment will allow the potential recipient to join the waiting list [3,4]. Studies reported only the oncological results of PC management prior to solid organ transplantation [5] or cases of radical