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REVIEW ARTICLE

Muscle invasive bladder cancer: Prognostic factors, follow-up and treatment of relapses☆

C. Hernández-Fernández*, F. Herranz-Amo, M. Moralejo-Gárate, D. Subirá-Ríos, J. Caño-Velasco, G. Barbas-Bernardos

Servicio de Urología, Hospital General Universitario Gregorio Marañón, Madrid, Spain

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KEYWORDS
Bladder cancer;
Cystectomy;
Recurrence;
Follow-up

Abstract

Context: Bladder cancer is the cause of more than 150,000 deaths per year. The overall rate of survival is approximately 45%, with a 10-year recurrence-free rate of 50–59%, with no changes in the last decade.

Objective: Due to a lack of agreement on the follow-up of cystectomy or on a uniform treatment when faced with the various types of recurrence, we have analyzed the most recent literature in an attempt to unify the criteria for the diagnosis and treatment of bladder cancer.

Acquisition of evidence: Review of Spanish and English publications in the medical literature in the last 10 years, highlighting the most significant series in terms of the number of patients, follow-up time, as well as the existing meta-analyses.

Synthesis of the evidence: Recurrence after cystectomy can occur in the urinary apparatus (upper urinary tract or distal urethra) and local (cystectomy bed) and/or distant metastases. Despite strict control, more than 60% of the relapses are discovered based on symptoms and not by the routine follow-up test. Locoregional and distant relapses are more common the more advanced the stage at the time of cystectomy, going from 11–21% in pT2N0 to 52–72% when there is lymphocytic N+ involvement.

Recurrence in the urethra and/or upper urinary track has other prognostic factors such as multiplicity, the presence of Cis and involvement of prostatic stroma. There are various treatments for tumor relapses. Increasingly, the patient's comorbidity is considered when deciding on the therapeutic strategy. Treatments are typically multimodal and include surgery, radiotherapy and chemotherapy.

Conclusion: The follow-up of patients who undergo cystectomy should be individualized, taking into account the prognostic factors of recurrence and the patient's comorbidity, assuming that in some cases, multimodal treatment is indicated.

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* Corresponding author.
E-mail address: carlos.hernandez@salud.madrid.org (C. Hernández-Fernández).

PALABRAS CLAVE
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Recidiva;
Seguimiento

Cáncer vesical infiltrante: factores pronósticos, seguimiento y tratamiento de las recidivas

Resumen

Contexto: El cáncer de vejiga es la causa de más de 150.000 muertes/año. La tasa de supervivencia global es de aproximadamente un 45% con un periodo libre de recurrencia a diez años del 50-59%, sin cambios en la última década.

Objetivo: Al no existir un acuerdo en el seguimiento tras cistectomía ni un tratamiento uniforme ante los distintos tipos de recidiva, analizamos la literatura más reciente para intentar unificar criterios en su diagnóstico y tratamiento.

Adquisición de evidencia: Revisión de las publicaciones en castellano e inglés de la literatura médica en los últimos diez años, destacando las series más importantes en número de pacientes, tiempo de seguimiento, así como los metanaálisis existentes.

Síntesis de la evidencia: La recurrencia tras cistectomía puede producirse en el aparato urinario (tracto urinario superior o uretra distal), local (lecho de la cistectomía) y/o metástasis a distancia. A pesar de un control estricto, más del 60% de las recidivas se descubren en base a la sintomatología y no en las pruebas rutinarias de seguimiento. Las recidivas locorregionales y a distancia son más frecuentes cuanto más avanzado es el estadio en el momento de la cistectomía, pasando del 11-21% en pT2N0 al 52-72% cuando existe afectación linfática N+.

La recidiva a nivel uretral y/o en el aparato urinario superior tiene otros factores pronósticos como la multiplicidad, presencia de Cis, afectación del estroma prostático, etc. Los tratamientos de las recidivas tumorales son diversos y, cada vez más, se considera la comorbilidad del paciente a la hora de decidir la estrategia terapéutica. Habitualmente los tratamientos son multimodales, incluyendo cirugía, radio y quimioterapia.

Conclusión: El seguimiento de los pacientes sometidos a cistectomía debe ser personalizado teniendo en cuenta los factores pronósticos de recurrencia y la comorbilidad del paciente, asumiendo que, en algunos de ellos, estará indicado el tratamiento multimodal.

Introduction

Bladder cancer takes up the 11th place in terms of its frequency and is the cause, in the civilized world, of more than 150,000 deaths a year.[1] Its usual treatment, when it affects the muscular plane of the bladder, is radical cystectomy together with an extended ilio-obturator lymphadenectomy. Despite correct management of the disease and the development of modern imaging tests in the last decades, cancer-specific mortality remains around 50% five years after surgery and no major variations are expected in the near future.

The follow-up schemes should take into account the different patterns of recurrence (locoregional, in the remaining and distal urothelium), their frequency and time to recurrence, as well as the monitoring of renal function. The objective would be the early diagnosis of relapses in order to be able to apply curative treatment, although currently only 40% of relapses are diagnosed early.

We are increasingly aware of the prognostic factors that will influence a higher or lower probability of relapse, both local and distant and, assuming that an early treatment of relapse, wherever it occurs, will provide a better prognosis for the patient, its detection will make it possible to adapt a type of follow-up for each patient, in an attempt to make a more personalized medicine. Often these are elderly patients and/or with important comorbidity, factors that must be taken into account when planning not only a correct follow-up but also the feasibility of the different treatment alternatives based on surgery, chemotherapy and radiotherapy.

Acquisition of evidence

A bibliographic search has been made in PubMed for the last 10 years (2006–2016) with the following keywords: ''cystectomy and pronostic factors'', ''cystectomy and relapse diagnostic'', ''cystectomy'' and ''relapse treatment''. Articles in English and Spanish were selected, articles on clinical cases were excluded. After a thorough reading of the abstracts, the 33 articles listed in the bibliography were selected.

Synthesis of the evidence

Prognostic factors of tumor recurrence

Pathological stage. The risk of relapse after cystectomy due to infiltrating bladder cancer increases as the pathological stage progresses; 11–21% rates have been published in organ-confined pT1–pT2 stages, from 32 to 62% with extravesical tumor, pT3–pT4 and 52–70% in patients with nodal disease (pN+). Recurrence, in this latter group of patients, will usually occur early, reaching a probability of 80–90% in the first 3 years of follow-up.[2]