Actas Urol Esp. 2015;39(1):2–7

Actas Urológicas Españolas

www.elsevier.es/actasuro

ORIGINAL ARTICLE

Clinical presentation features of testicular cancer in public hospitals in the Autonomous Community of Madrid, Spain☆

A. Moreno[a,*], A. Domínguez[b], C. Alpuente[a], A. Hernándo[a], J. Torres[a], J.A. Cabrera[a]

[a] *Hospital Central de la Defensa Gómez Ulla, Madrid, Spain*
[b] *Departamento de Medicina Preventiva y Salud Pública, Universidad Complutense de Madrid, Madrid, Spain*

Received 24 March 2014; accepted 27 March 2014
Available online 2 December 2014

KEYWORDS
Testicular cancer;
Epidemiology;
Treatment

Abstract

Objective: To study the clinical features of the patients with germ cell tumor of testis in the Autonomous Community of Madrid, emphasizing on the different treatments used.

Material and method: Retrospective analysis of 536 patients with testicular cancer who were obtained from the Community of Madrid cancer registry, during a follow-up period of 15 years (1991–2010). Data analysis has been performed using SPSS 15.0 for Windows. Chi-square test has been used to determine possible relationships among variables. The level of significance was $p \leq 0.05$.

Results: An increase in the incidence rate has been detected along study period. Mean age was 33.6 ± 13.6 years. 89.7% of cases were germ cells tumors (46% seminoma and 43.6% non-seminomatous germ cell tumor [NSGCT]) and other histologic subtypes the remaining 10.3% of cases. 74% of patients were diagnosed with stage I disease, 8.2% with stage II and 16.2% with stage III; 54.3% of patients were treated with surgery plus adjuvant chemotherapy and in 5.6% of patients the treatment was surgery plus adjuvant radiotherapy. Surgery alone was used in 27.4% of cases: in 32.7% of stage I tumors, 13.6% of stage II and 9.2% of stage III. Radiotherapy was prescribed in 10% of stage I tumors, in 9% of stage II and in 3.4% of stage III. For the seminomas: the surgery-chemotherapy association was used in 49.8 of cases, surgery alone in 30% and surgery plus radiotherapy in 16.6% of cases. For the NSGCT, surgery plus chemotherapy was used in 70.5% of patients, surgery alone in 23.5% and surgery-radiotherapy association in 0.8% of cases.

☆ Please cite this article as: Moreno A, Domínguez A, Alpuente C, Hernándo A, Torres J, Cabrera JA. Características de la forma de presentación del cáncer de testículo en hospitales públicos de la Comunidad Autónoma de Madrid, España. Actas Urol Esp. 2015;39:2–7.

* Corresponding author.
E-mail address: ajmorenor1@hotmail.com (A. Moreno).

Conclusion: Testicular cancer incidence is increasing. Adjuvant chemotherapy is the treatment used most frequently in the more advanced stages of both seminomas and NSGCT. The tendency to reduce the use of radiotherapy in the treatment of seminoma was confirmed.

PALABRAS CLAVE
Cáncer de testículo;
Epidemiología;
Tratamiento

Características de la forma de presentación del cáncer de testículo en hospitales públicos de la Comunidad Autónoma de Madrid, España

Resumen

Objetivo: Estudiar las características de los sujetos que padecen tumor de células germinales de testículo en la Comunidad Autónoma de Madrid, con énfasis en los distintos tratamientos empleados.

Material y método: Se realiza un análisis retrospectivo de una serie de 536 pacientes con cáncer de testículo, procedentes del registro de tumores de la Comunidad de Madrid, durante un periodo de 15 años (1991-2010). El análisis de los datos se ha realizado con el paquete SPSS 15.0 para Windows. Se ha empleado la prueba chi-cuadrado para la búsqueda de posibles asociaciones. El nivel de significación ha sido de $p \leq 0{,}05$.

Resultados: Se detecta un incremento en la incidencia a lo largo del periodo de estudio. La edad media fue 33,6 + 13,6 años. El 89,7% fueron tumores de células germinales (46% seminoma y 43,6% tumor no seminomatoso [TCGNS]) y el 10,3% restante otras estirpes histológicas. El 74% de los pacientes fueron diagnosticados en estadio I, el 8,2% en estadio II y el 16,2% en el estadio III; 54,3% recibieron tratamiento con cirugía y quimioterapia adyuvante, y 5,6% con cirugía y radioterapia adyuvante. La cirugía sola se empleó en el 27,4% de los casos; 32,7% de los tumores en estadio I, 13,6% de los estadio II y 9,2% de los estadio III. La radioterapia se indicó en el 10% de los tumores estadio I, en el 9% de los estadio II y en el 3,4% de los estadio III. En el caso de los seminomas, la asociación cirugía y quimioterapia se empleó en un 49,8% de los casos, cirugía sola en un 30% y cirugía asociada a radioterapia en un 16,6%. En los TCGNS la asociación cirugía y quimioterapia se empleó en un 70,5%, cirugía sola en un 23,5% y la asociación cirugía y radioterapia en el 0,8% de los casos.

Conclusión: La incidencia del cáncer de testículo está en aumento. La quimioterapia adyuvante se emplea con más frecuencia en estadios más avanzados, tanto en seminomas como TCGNS. Se confirma la tendencia a disminuir el empleo de radioterapia en el tratamiento del seminoma.

Introduction

Testicular cancer accounts for between 1 and 1.5% of all malignancies affecting men, and constitutes the most frequent solid tumors between the age of 20 and 34,[1] its incidence having increased over the last four decades (between 3 and 6% annually).[2] Treatment for these tumors has evolved considerably, and a multidisciplinary approach model is considered for solid malignancies where surgery, chemotherapy (based on cisplatin) and radiotherapy play a decisive role in improving survival, from 60 to 65% in the 60s to over 95% at present.[3] Testicular germ cell tumors (TGCT) account for between 90 and 95% of the malignancies of the male gonads. The remaining 5% corresponds to non-germ cell testicular tumors, among which we include tumors of the sexual cords and of the gonadal stroma (Leydig cell tumor, Sertoli cell tumor, granulosa tumors [adult and juvenile], and gonadoblastomas, among others) and non-specific stromal tumors (tumors of the collector tubules and of the rete testis and non-specific stromal tumors, benign and malignant).[4] Our aim was to describe the characteristics of the patients and tumors that are diagnosed and treated in public hospitals of the Madrid Health Service, Community of Madrid, Spain.

Materials and methods

The study population results from the hospital records of tumors within the Autonomous Community of Madrid. All patients diagnosed with testicular cancer between 1 January 1995 and 31 December 2010 were included. Testicular cancer was considered in accordance with the International Classification of Diseases for Oncology (ICD-O-3), which encodes it as C62.[5] We studied both the descriptive variables of the subjects, as well as those corresponding to the tumor and the treatment received. Temporal distribution was grouped into five-year periods. Age was classified into 15-year groups, following the criteria of the National Center Data Base (NCDB)[6] and age was grouped into patients under the age of 34 and patients aged 34 or older, taking the average age in the series as a cut-off point.

Histology was grouped into two categories: TGCT, the classification of which was based on that described by Mostofi and Price[7]; and ''other tumors'', where the