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TREATMENT OF ACUTE MYELOGENOUS LEUKEMIA IN A MEXICAN PEDIATRIC HOSPITAL
TRATAMIENTO AGUDO DE LEUCEMIA MIELÓGENA AGUDA EN UN HOSPITAL PEDIATRICO MEXICANO



Área del Conocimiento: 3 Medicina y Ciencias de la Salud

Abstract

Acute leukemia is the most common malignancy in children, and nearly 35% of all childhood cancers. Acute myelogenous leukemia (AML) constitutes about 20% of acute leukemias. Initially, treatment of AML involves the immediate approach of emergencies associated as hyperleukocytosis, tumor lysis syndrome, hemorrhages and infections. Therefore we performed a retrospective, descriptive and transversal study to investigate the drugs used in patients with AML who were admitted at the Hospital del Niño DIF from 2007 to 2008. Data were collected from charts of the Hospital. The data included demographic, clinical data and those on drugs usage. A total of 13 patients (12 male and 1 female) were included (prevalence of 16.5% among all cancers in the hospital). The mean age of patients was 6.2 ± 4.6 years. To date the mortality rate was 30.8%. Data were collected and 12 different drugs were given to the patients (10 antineoplastic agents, ondansetron and folic acid). The median number of drugs/inpatient was 5.4 (3-9). Four-hundred thirty-one doses of antineoplastic drugs were administered in 409 sessions to the patients. The most used were cytarabine (55.9 %), followed by doxorubicin (7.2 %) and vincristine (6.7 %). Three-hundred twenty-four doses of ondansetron were administered in 409 sessions. It was observed that the AML is common in our hospital and there is a significant mortality rate. Also, the antineoplastic agent most used was the pyrimidine analogue cytarabine.

Key words: Acute Myelogenous Leukemia



Área del Conocimiento: 3 Medicina y Ciencias de la Salud

Resumen

La leucemia aguda es la neoplasia maligna más común en los niños, y casi el 35% de los cánceres infantiles. La leucemia mielógena aguda (LMA) representa alrededor del 20% de las leucemias agudas. Inicialmente, el tratamiento de la LMA incluye el enfoque inmediato de las emergencias asociadas como hiperleucocitosis, síndrome de lisis tumoral, hemorragias e infecciones. Por lo tanto, se realizó un estudio retrospectivo, descriptivo y transversal para investigar los medicamentos utilizados en pacientes con LMA que fueron ingresados en el Hospital del Niño DIF 2007 a 2008. Los datos fueron recolectados de las cartas del Hospital. Los datos que se incluyen datos demográficos, clínicos y aquellos sobre el uso de drogas. Un total de 13 pacientes (12 hombres y 1 mujer) fueron incluidos (prevalencia del 16,5% entre todos los tipos de cáncer en el hospital). La edad media de los pacientes fue de 6,2 ± 4,6 años. Hasta la fecha la tasa de mortalidad fue del 30,8%. Los datos fueron recolectados y 12 diferentes drogas fueron entregadas a los pacientes (10 agentes antineoplásicos, el ondansetrón y el ácido folínico). El número medio de fármacos / hospitalización fue de 5,4 (3-9). Cuatrocientos treinta y una dosis de los fármacos antineoplásicos se administran en 409 sesiones a los pacientes. Los más utilizados son la citarabina (55,9%), seguido por doxorubicina (7,2%) y vincristina (6,7%). Trescientos veinticuatro dosis de ondansetrón se administró en 409 sesiones. Se observó que la LMA es común en nuestro hospital y hay una tasa de mortalidad significativa. Además, el agente antineoplásico más utilizado fue la citarabina análogo de pirimidina

Key words: Leucemia Mielogénica Aguda



Introduction

Acute myelogenous leukemia (AML) is the most common type of acute leukemia. AML affect mainly adult persons and fewer than 10% of people with AML are children. AML can get worse quickly, so doctors usually begin treatment right away. For a patient with AML, the treatment includes: induction chemotherapy (the goal of induction chemotherapy is to bring the disease into remission) and consolidation chemotherapy (the goal of consolidation chemotherapy is to destroy any remaining leukemia cells).

Our objective was performed a retrospective, descriptive and transversal study to investigate the treatment of patients with AML who were admitted at the Hospital del Niño DIF, Pachuca, Hidalgo, Mexico, from 2007 to 2008.



METHODS

- Data were collected from charts of the Hospital del Niño DIF, Pachuca, Hidalgo, Mexico.
- The data included demographic, clinical data and those on drugs usage.
- A total of **13 patients** were included



RESULTS

- A total of 13 patients (12 male and 1 female) were included
- Prevalence of 16.5% among all cancers in the hospital
- The mortality rate was 30.8%.
- Data were collected and 12 different drugs were given to the patients (10 antineoplastic agents, ondansetron and folic acid).
- The median number of drugs/inpatient was 5.4 (3-9).
- Four-hundred thirty-one doses of antineoplastic drugs were administered in 409 sessions to the patients.
- Three-hundred twenty-four doses of ondansetron were administered in 409 sessions.



RESULTS



The mean age of patients was 6.2 ± 4.6 years

The mean height of patients was 108.3 ± 9.5 cm

The mean weight of patients was 25.4 ± 4.4 kg

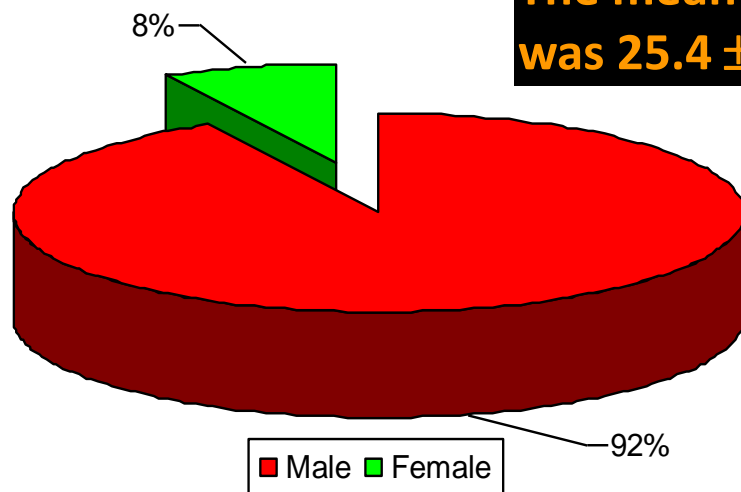


Figure 1. Percentage of female and male patients

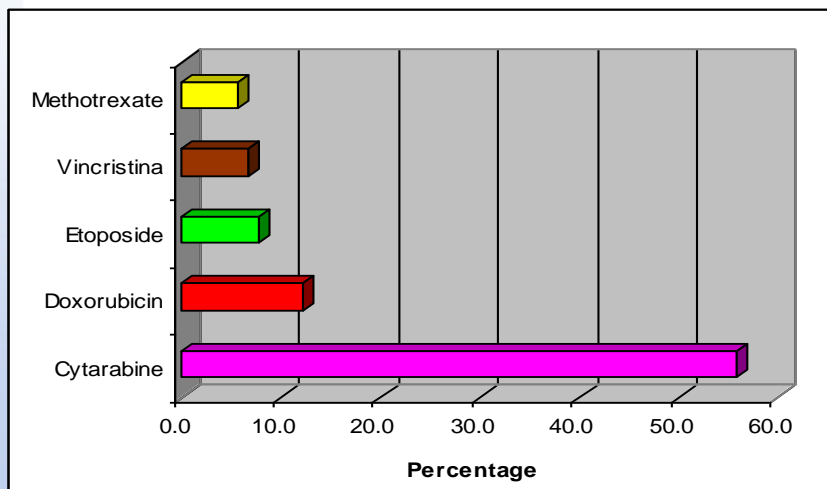


Figure 2. Antineoplastic drugs most used in the patients with leukemia

RESULTS

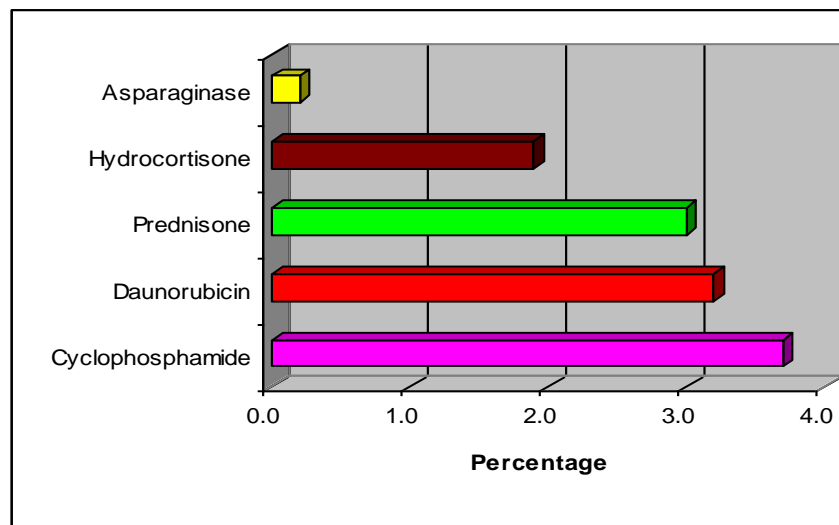


Figure 3. Antineoplastic drugs less used in the patients with leukemia



RESULTS

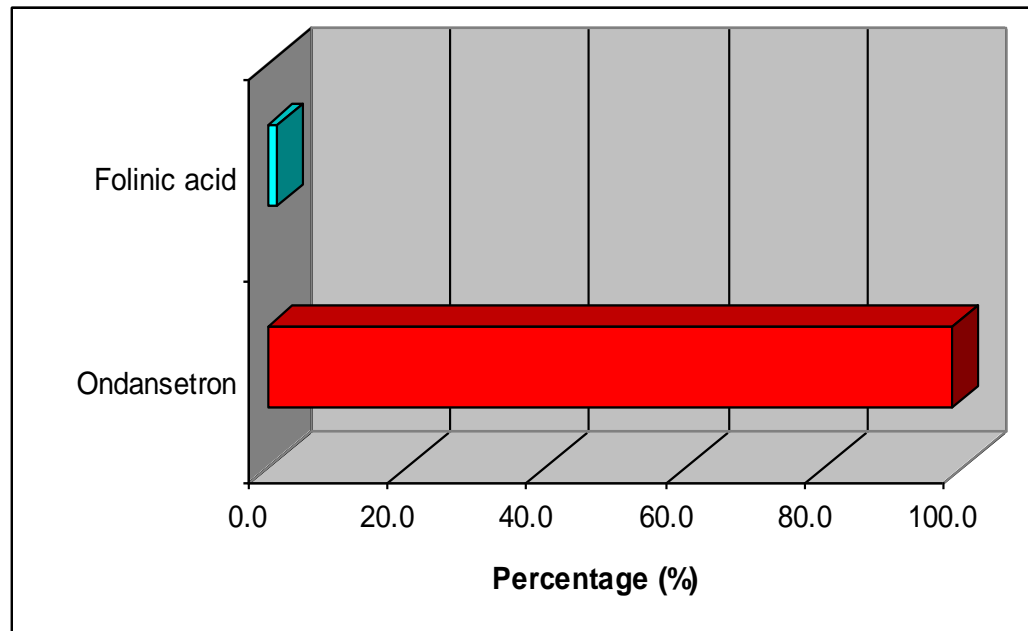


Figure 4. Non-antineoplastic Drugs used in the patients with leukemia



CONCLUSIONS

**IT WAS OBSERVED THAT THE AML IS COMMON IN
THE HOSPITAL DEL NIÑO DIF**

**ALSO, THE PYRIMIDINE ANALOGUE CYTARABINE
WAS THE MOST USED ANTINEOPLASTIC.**



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