

EPIDEMIOLOGY OF CHILDHOOD CANCER IN CALI, COLOMBIA 2000-2020.

Elvia Karina Grillo Ardila¹⁻²⁻⁴, Oscar Ramírez²⁻⁵⁻⁶, Luis Eduardo Bravo²⁻³, Luz Stella García²⁻⁷

Paola Collazos², Jesús Ardila⁵⁻⁶

¹Doctorado en Salud, Facultad de Salud, Universidad del Valle, Cali, Colombia. ²Registro Poblacional de Cáncer de Cali, Cali, Colombia. ³Departamento de Patología, Facultad de Salud, Universidad del Valle, Cali, Colombia. ⁴Maestría en Epidemiología, Escuela Salud Pública, Universidad del Valle, Cali, Colombia. ⁵Fundación POHEMA Cali, Colombia. ⁶Clínica Imbanaco Grupo Quirón Salud, Cali, Colombia. ⁷Maestría en Salud Pública, Escuela Salud Pública, Universidad del Valle, Cali, Colombia.

BACKGROUND

Cancer mortality in Colombia has decreased around 57% in the last four decades but remains as the second cause of death on children and adolescents from 2-19 years, and the third cause in the group among 1-14 years.

AIM

To describe occurrence patterns of childhood cancer patients over the last 20 years in Cali.

METHODS

Information was obtained from the Population-based Cancer Registry of Cali (RPCC) and VIGANCER surveillance system. Municipal Department of Health provided vital status from death mortality databases. International Childhood Cancer Classification version-3 (ICCC-3) was used. Incident (IR) and mortality (MR) rates were estimated and adjusted for age.

RESULTS

1.628 cases <15 years old were identified between 2000-2019. During the first period 2000-2009 the IR for a million persons per year was 155.6, and 149.8 in the second period 2010-2019; the global IR increased steadily with an annual percentage change (APC) of 0.9 (95% CI 0.7, 1.2). There was a significant decrease in MR in Cali between 2001-2010 and 2011-2020, APC -1.9 (95% CI: -2.5, -1.2). It is remarkable to note a significant reduction for leukemia with an APC of -2.5 (95% CI: -3.6, -1.3). CNS tumors increased IR and MR between the same decades of observation, becoming the second cause of incident cases and the first cause of death in childhood cancer in Cali, Colombia. (TABLE 1)

Cali, Colombia. Age-standardized rates of incidence and mortality of childhood cancer during 2000-2020.

ICCC-3	Incidence					Mortality				
	2000-2009		2010-2019		APC IC95%	2001-2010		2011-2020		APC IC95%
	n	ASR	n	ASR		n	ASR	n	ASR	
I Leukemias, Myeloproliferative And Myelodysplastic Diseases	326	62,5	308	58,4	1.2* (0.8 ; 1.7)	147	26,4	74	13,2	-2.5* (-3.6 ; -1.3)
II Lymphomas and reticuloendothelial neoplasms	123	21,8	90	16,2	-0,1 (-0.6 ; 0.4)	17	2,8	6	1,0	~
III CNS and Miscellaneous Intracranial and Intraspinal Neoplasms	115	21,5	123	23,1	0.6* (0.0 ; 1.2)	61	11,1	79	14,8	1.7* (0.4 ; 3.1)
IV Neuroblastoma And Other Peripheral Nervous Cell Tumors	19	4,0	21	4,5	~	~	~	~	~	~
V Retinoblastoma	28	6,3	23	5,0	~	6	1,3	2	0,4	~
VI Renal Tumors	39	8,3	29	6,1	~	10	1,9	11	2,1	~
VII Hepatic Tumors	8	1,7	15	3,1	~	7	1,5	2	0,4	~
VIII Malignant Bone Tumors	50	8,2	63	10,3	~	12	1,9	7	1,1	~
IX Soft Tissue And Other Extrasosseous Sarcomas	46	8,3	51	9,4	~	7	1,2	9	1,6	~
X Germ Cell Tumors, Trophoblastic Tumors And Neoplasms Of Gonads	29	5,5	21	3,8	~	1	0,2	0	0,0	~
XI Other Malignant Epithelial Neoplasms And Malignant Melanomas	33	5,3	32	5,5	~	~	~	~	~	~
XII Other And Unspecified Malignant Neoplasms	11	2,3	22	4,1	~	54	10,8	39	7,3	~
Total	827	155,6	801	149,8	0.9* (0.7 ; 1.2)	322	59,1	229	41,8	-1.9* (-2.5 ; -1.2)

*ICCC-3: International Childhood Cancer Classification version 3

ASR: age-standardised rate

~ Statistic could not be calculated.

APC: annual percentage change

* The APC is significantly different from zero (p<0.05).

CONCLUSION

Childhood cancer has globally increased per year steadily for the last 20 years. This behavior is mainly due to the annual increase in the incidence of CNS tumors and leukemias. Cancer mortality in children has decreased annually, behavior attributed mostly to the improvement in the management of leukemias. Childhood cancer is uncommon in Colombia, but even represents a rising health public problem with high burden on social, economic, psychology and affective aspects on the population and Colombian health system.

KEY WORDS: Childhood cancer, incidence, mortality, epidemiology.

REFERENCES

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Contact:

elvia.grillo@correounivalle.edu.co