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**On behalf of VIGANCER Working Group**

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## BACKGROUND

- Data on overall survival (OS) for central nervous system (CNS) tumors in children in low-and-middle income countries is scarce.

## AIM

- We describe clinical characteristics and OS of children with CNS tumors in ten Colombian cities.

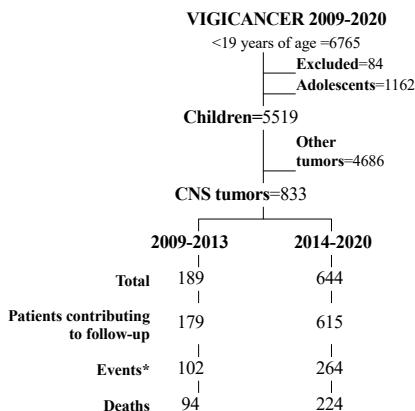
## DESIGN/METHODS

- We prospectively collected data from the Childhood Cancer Surveillance System (VIGANCER).
- VIGANCER was established in Cali in 2009 with the Sanofi-Spoir Fondation support.
- From 2013 onwards, VIGANCER gradually expanded to another nine cities in Colombia.
- We included patients <15 years with newly diagnosed CNS tumors.
- VIGANCER does not include craniopharyngiomas
- We excluded from the analyses intracranial germ cell tumors
- We used Kaplan-Meier methodology for survival analyses
- Data and analyses were updated since abstract submission

## RESULTS

- Fifteen percent of the patients (n=855) had CNS tumors. (figure 1).

Figure 1. STROBE diagram



\*Event: Relapse or death; in those with treatment abandonment and no information about relapse or death, abandonment of treatment was also considered as an event

## RESULTS

- The earliest cohort (2009-13) had younger patients compared to the most recent cohort (median age of 6 vs 8 years;  $P<0.001$ ), fewer patients seeking treatment for provinces without POU (17% vs 26%;  $P=0.01$ ).
- There were no significant differences between cohorts in sex, afro descendants, and insurance groups (table1).

Table 1. General characteristics of the patients

Characteristics	Period		Total		P value
	2009-13 n %	2014-20 n %	n %	n %	
Age (years; n=831)					0.05
<1	16 8	31 5	47 6		
1-4	58 31	157 24	215 26		
5-9	63 33	231 36	294 35		
10-14	52 28	223 35	275 33		
Male sex (n=855)	103 54	344 53	447 54		0.75
Afrodescendent (n=756)	18 14	55 9	73 10		0.08
Place of residence (n=826)					0.01
Province's capital city with POU	91 48	232 36	323 39		
Province's towns without POU	65 34	235 37	300 36		
Other Provinces	33 17	167 26	200 24		
Other country	0 0	3 0	3 0		
Health insurance (n=823)					0.13
Semi-Private & Private	90 49	310 48	400 49		
Public	81 44	300 47	381 46		
Excepcional	5 3	23 4	28 3		
Uninsured	7 4	7 1	14 2		

Table 2. Topography of CNS tumors

Topography	n	%
Cerebrum	402	48
Ventricle	30	4
Cerebellum	238	29
Brain stem	119	14
Meninges	21	3
Cranial/spinal nerve	23	3
<b>Total</b>	<b>833</b>	<b>100</b>

Table 3. Morphology of CNS tumors

Morphology	n	%
Gliomas	387	47
Embryonal tumors	235	28
Ependymomas/choroid plexus	107	13
Neuronal/glial tumors	31	4
Meningeal tumors	21	3
Pineal tumors	12	1
Other specified tumors	29	3
Unspecified tumors	9	1
<b>Total</b>	<b>831</b>	<b>100</b>

- Medulloblastomas represented 83% (195/235) of tumors in the embryonal group
- Cohort 5-year overall survival (5y-OS) was 49% (95% CI: 45, 54)
- In younger than 3 years old 5y-OS was 44% (95% CI: 34, 54)
- In medulloblastomas 5y-OS was 46% (95% CI: 35, 56)
- In brain stem tumors 5y-OS was 8% (95% CI: 2, 18)

Figure 2. CNS tumors overall survival by period

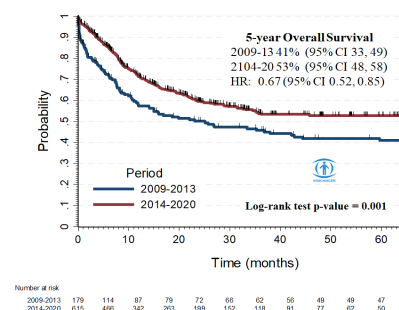
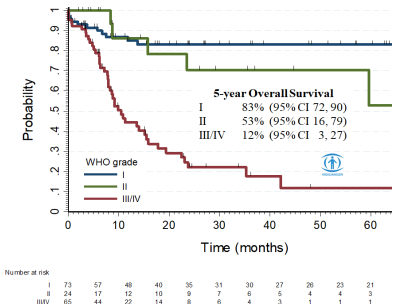


Figure 3. Supratentorial gliomas overall survival by WHO grading system



## CONCLUSIONS

- Our results contribute to the limited data on childhood CNS survival in LMIC.
- We found a significant increase in OS from 2014-2020 compared to 2009-2013.
- This survival improvement is modest compared to advances in high-income countries, achieving 5y-OS of 70 to 75% in malignant CNS tumors

## REFERENCES

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