

The childhood cancer section of the Puglia cancer registry.

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BACKGROUND

Childhood cancer registration needs strict procedures to reach the highest level of completeness and accuracy. Our objective is to create a specific section in the Puglia Cancer Registry (RTP) for the childhood cancer series and to estimate for the first time frequency indicators of these tumors in the whole regional population.

RESULTS

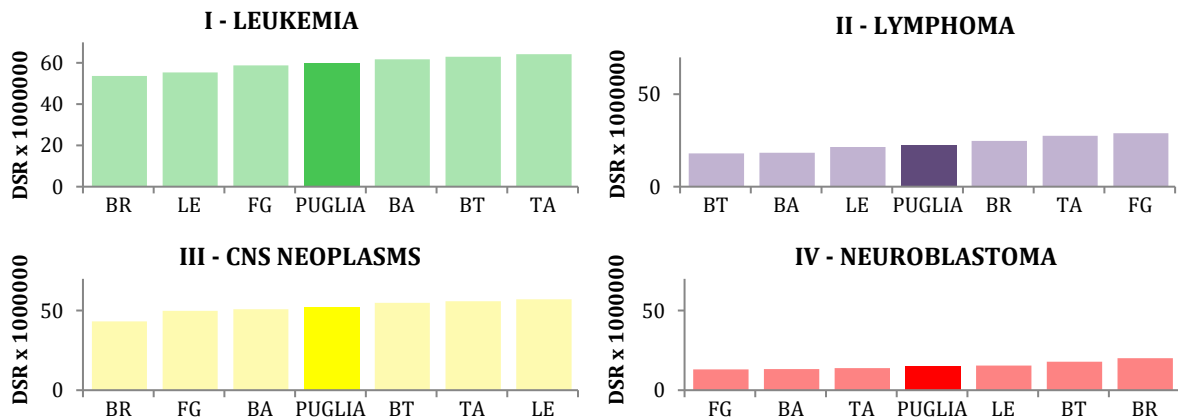
In the period 2006-2017 we registered 1441 tumors in children up to 14 years of age, 1221 of which with malignant behavior (/3). The standardized incidence rates of all childhood tumors per million were 203 (192-214, 95% CI) over the entire period, 207 (193-222) in 2006-2011 subperiod and 198 (183-213) in 2012-2017 subperiod. Those of all malignant tumors were respectively 172 (162-182), 180 (167-195) and 163 (149-177). Tables show male and female regional rates for ICCC3 clusters.

MATERIALS & METHODS

The linkage of hospital discharge, pathological reports of tumors and causes of death data defined an initial series of 2726 cases of childhood tumors for the period 2006-2017. Expert registrars of the RTP Coordination Center reviewed all cases and excluded 1285 tumors. RTP used the following additional sources: model 1.01 of the Italian Association of Pediatric Hematology and Oncology database, pharmaceuticals data, radiology reports, ticket exemptions, oncohematology, regional and extra-regional medical records and civil invalidity data. All tumors have been coded according to ICD03 and the specific classification system ICCC. We produced crude and age standardized incidence rates (2013 European population as reference) of all childhood tumors and malignant ones for Puglia and for each of the 6 provinces, and rates of the main ICCC3 groups for the whole region, for the period 2006-2017 and subperiods 2006-2011 and 2012-2017.

ICCC3 CLUSTERS	PUGLIA MALES									PUGLIA FEMALES								
	2006-2017			2006-2011			2012-2017			2006-2017			2006-2011			2012-2017		
	N	CR	DSR	N	CR	DSR	N	CR	DSR	N	CR	DSR	N	CR	DSR	N	CR	DSR
I - LEUKEMIA	225	61	61	116	61	61	109	62	62	203	58	58	114	63	63	89	53	53
II - LYMPHOMA	97	26	26	55	29	29	42	24	23	67	19	19	44	24	24	23	14	13
III - CNS NEOPLASMS	204	55	55	102	53	53	102	58	58	171	49	49	85	47	47	86	51	51
IV - NEUROBLASTOMA	49	13	14	30	16	16	19	11	11	55	16	16	24	13	13	31	18	19
V - RETINOBLASTOMA	21	6	6	15	8	8	6	3	4	16	5	5	9	5	5	7	4	4
VI - RENAL TUMORS	24	7	7	12	6	6	12	7	7	42	12	12	23	13	13	19	11	12
VII - HEPATIC TUMORS	11	3	3	5	3	3	6	3	4	1	0	0	1	1	1	0	0	0
VIII - BONE TUMORS	29	8	8	9	5	5	20	11	11	34	10	10	18	10	10	16	10	9
IX - SOFT TISSUE SARCOMA	52	14	14	26	14	14	26	15	15	24	7	7	12	7	7	12	7	7
X - GERM CELL TUMORS	17	5	5	10	5	5	7	4	4	25	7	7	14	8	8	11	7	7
XI - CARCINOMA & MELANOMA	24	7	6	14	7	7	10	6	5	45	13	12	25	14	13	20	12	11
XII - OTHER & UNSPECIFIED	4	1	1	4	2	2	0	0	0	1	0	0	1	1	1	0	0	0
TOTAL TUMORS	757	205	206	398	208	208	359	203	204	684	196	196	370	204	204	314	187	188
TOTAL MALIGNANT TUMORS	646	175	176	346	181	181	300	169	170	575	165	165	322	178	177	253	151	151

Following graphs show standardized regional and provincial incidence rates per million for the period 2006-2017 for the first four most frequent ICCC3 clusters.



CONCLUSIONS

In Puglia we produced and validated a complete and informative childhood cancer series that will be useful for comparisons between populations and over time and for further analytical studies.