



**Introduction**

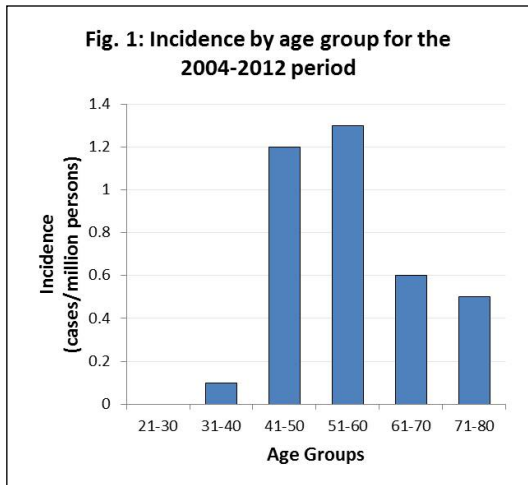
- The amount of literature regarding CP is very limited. So far, no data has been published regarding the epidemiology or management of CP in the Puerto Rican population. The purpose of this research is to elucidate the demographic characteristics, behavior, management and prognosis of CP adult patients diagnosed and managed in the Puerto Rico Medical Center (PRMC) during the years 2004-2014.

**Methods**

- 42 patients were selected with ICD-9 diagnosis of 237.0, treated at PRMC. 22 were excluded due to pathology classification, diagnosis before 2004 and age at diagnosis <21 years. 20 cases were included, which were diagnosed and managed in the 2004-2014, with an age at diagnosis = 21 years, and pathology consistent with CP.
- Data collected included 13 variables: complete name, social security number, town of residency, birth date, gender, medical record number, age at time of diagnosis, tumor subtype and location, clinical manifestations, management and outcomes. Data analysis was performed using R-3.2.5 and R Commander 2.2-4. Analysis included: distribution frequency, cross tables and Kaplan-Meier Survival Analysis.

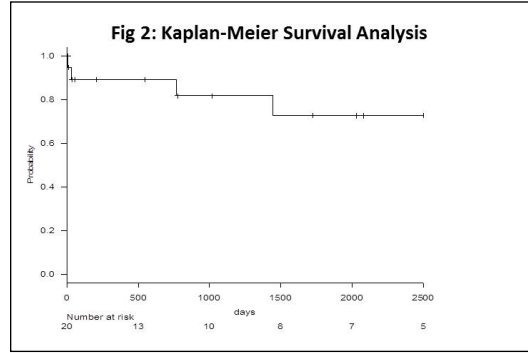
**Results**

- Mean age at diagnosis was  $49.9 \pm 12.7$  years. Only 10% of our patients were >65 years.
- No differences in gender or geographic distribution were observed. Race was not analyzed due to Puerto Rican heterogeneity.
- The incidence of CP for the 2004-2012 period was 7.6 cases per million persons. Incidence by age group for the 2004-2012 period is depicted in Fig. 1.



- The most common tumor locations were suprasellar (40%) and supra/intrasellar (30%).
- The most common presenting symptoms were visual loss (85%), headache (60%), cognitive impairment (25%), dizziness (25%) and ataxia (25%).

- Among the approaches used, frontal approach (45%) and frontotemporal approach (30%) were the most common. 85% were described as gross total resections. The mean amount of procedures performed per patient was  $2.2 \pm 1.8$  procedures.
- The most common outcomes after initial treatment were central diabetes insipidus (56%), visual loss (31%) and endocrine disturbances (31%).
- Recurrence/regrowth rate was 45%. The mean amount of recurrences/regrowths per patient was  $2.2 \pm 1.1$ . The procedures performed to treat recurrences were craniotomy (25%), VP shunt placement (20%), radiotherapy (25%), external ventricular drainage (25%), and bleomycin instillment (5%).
- Survival analysis is demonstrated by the Kaplan-Meier method (Fig. 2). The probability of surviving 2500 days (6.9 years) was 73%.



**Conclusions**

- Our population had an increase in incidence in the 40-60 years age groups, in contrast to the previously reported incidence peak in patients over 65 years. This may suggest CP is presenting at a younger age in Puerto Rico.
- This is the first research about incidence of CP in Puerto Rico. To our understanding, the adult incidence presented is the first and only measure reported to date.
- Recurrence rate is high, congruent with rates presented in the literature. Even with the use of several surgical approaches, radiotherapy and chemotherapy, tumor recurrence was a concern with patients presenting recurrent/regrowth after multiple treatments.
- Although other reports analyzed survival including all ages, they observed a similar survival rate.
- A second phase of this study involving the epidemiology and management of CP in pediatric patients in the PRMC during the 2004-2014 period is in progress with the aim of further characterizing and analyzing all age groups.