

INVASIVE CRIBRIFORM CARCINOMA OF THE BREAST: A RARE CARCINOMA WITH AN EXCELLENT PROGNOSIS

Danielle Orlandi Gomes; Diego Trabulsi Lima; Rodrigo Brilhante de Farias; Emanuelle Narciso Alvarez; Denise Biangolino Chaves; Ana Luiza Fraga Froes Cruz; Lizelle Winkelströter Correia; Juliana Lopes do Vale; Danielle Carvalho Quintella; Sérgio de Oliveira Monteiro; Anke Bergmann; Luiz Claudio Thuler; Marcelo Adeodato Bello
Seção de Mastologia - Hospital do Câncer III - Instituto Nacional de Câncer (INCA)

INTRODUCTION

Invasive cribriform carcinoma (ICC) is a rare type of invasive breast carcinoma associated with an excellent prognosis. It exhibits cribriform pattern in the majority of the invasive component and was first recognized as a distinct clinicopathological entity by Page et al. in 1983. The incidence of ICC is 0.8% to 3.5% of invasive breast carcinomas. ICC was divided into classical and mixed forms. The classical form includes cases in which all the infiltrating component exhibit a cribriform pattern or tumors that presents a cribriform pattern in more than 50% of the invasive component with limited extent of tubular invasive elements. Mixed form comprised tumors where more than 50% of the invasive component showed a cribriform pattern with areas of another carcinoma type. (figures 1,2 and 3) The aim of this study is to report the pathological and clinical features of 17 cases of ICC treated in the Brazilian National Cancer Institute (INCA).

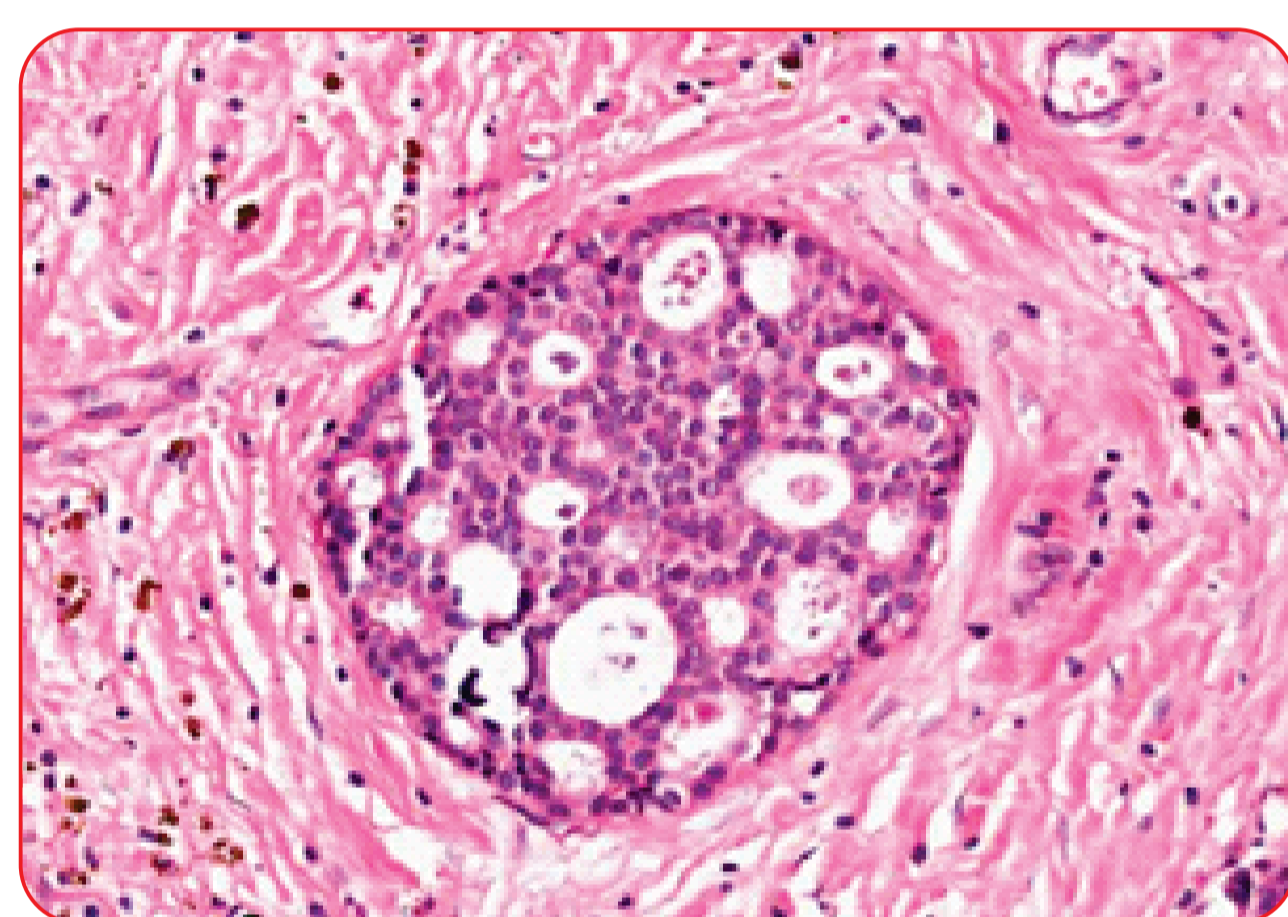


Figure 1. Ductal carcinoma "in situ" with cribriform pattern. (Ceded by Pathology Department of INCA – DIPAT)

Figure 2. Invasive Cribriform mixed carcinoma, represented by ICC (left) and Infiltrating ductal carcinoma (right). (Ceded by DIPAT)

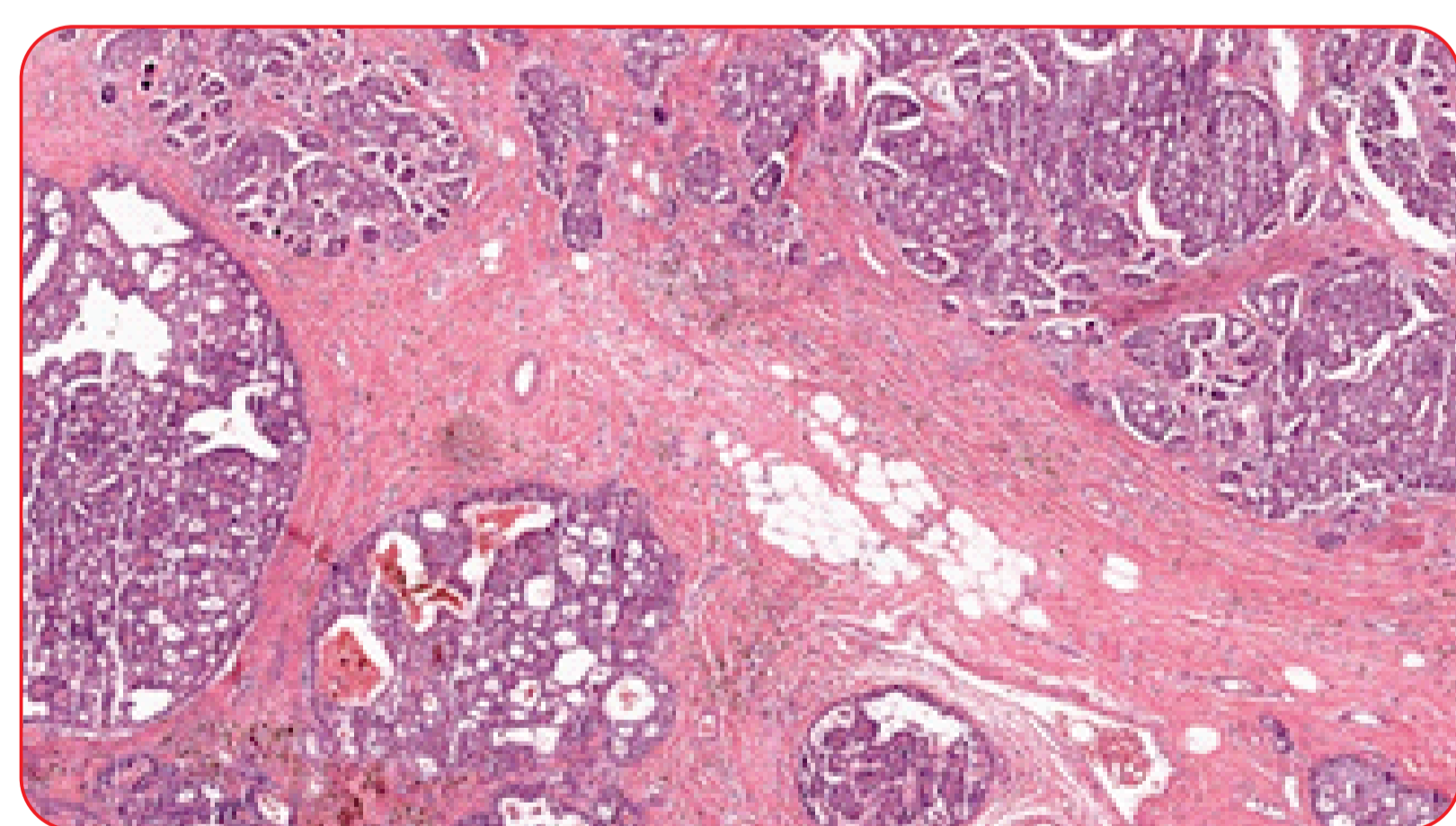
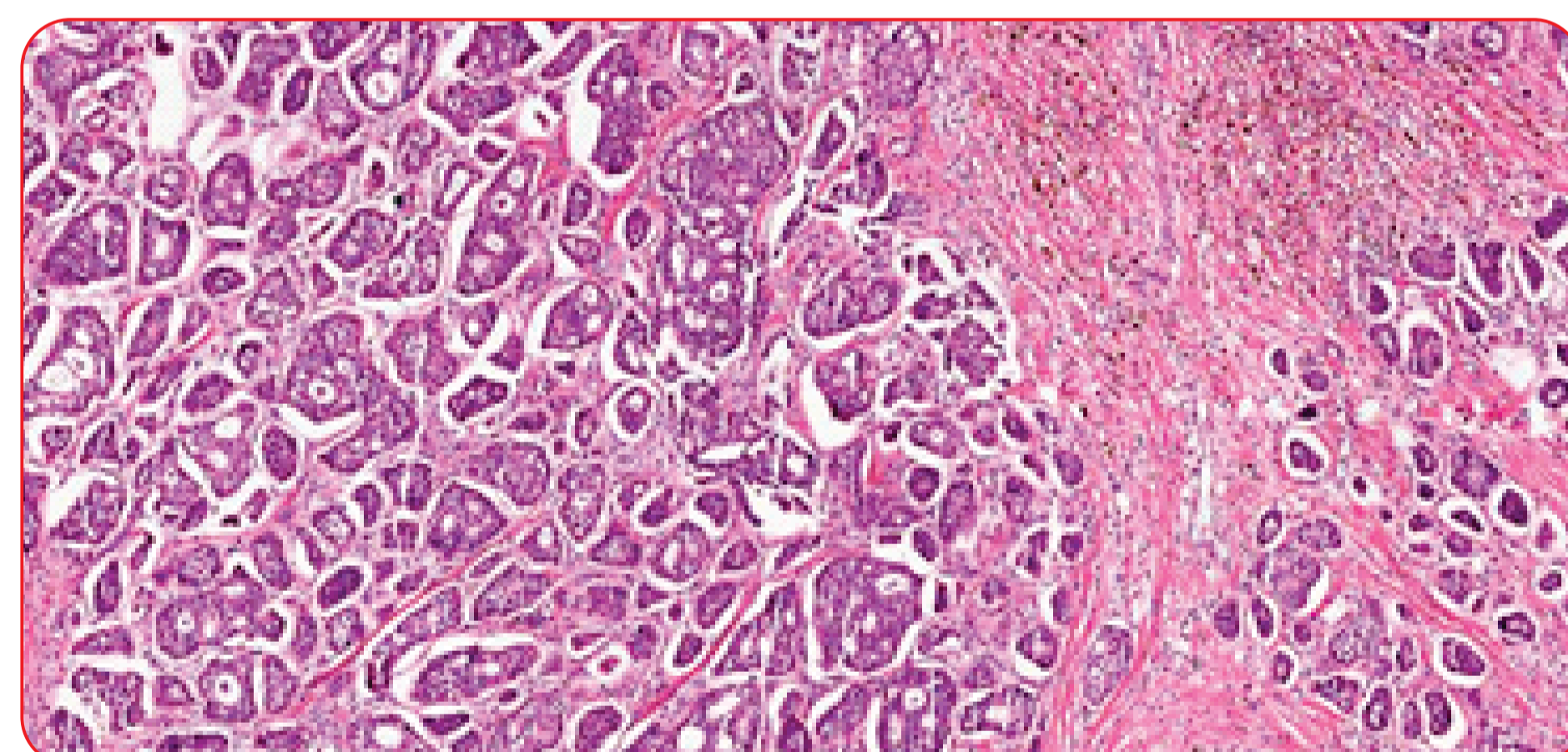


Figure 3. ICC associated to papillary carcinoma. (Ceded by DIPAT)

MATERIAL AND METHODS

Seventeen cases of ICC were identified from 15991 patients diagnosed with primary invasive breast carcinoma between 2000 and 2010 in INCA. Data were obtained from Cancer Hospital Registry and supplemented by active search in the medical records. Variables collected were related to socio-demographic factors, clinical features, pathology, treatment and follow-up. Descriptive analysis was conducted using central tendency measures for continuous variables and absolute and relative frequencies for categorical variables.

RESULTS

The 17 cases of ICC corresponded to approximately 0.1% of all invasive breast carcinomas treated in INCA between 2000 and 2010. The mean age at diagnosis was 54.47 years (SD 15,31). Classical ICC corresponded to 82.4% and 15.6% were of mixed type. Histological grade I was observed in 81.8% of tumors. All cases were positive to estrogen receptor (ER) and 82.4% were positive to progesterone receptor (PR). HER 2 was evaluated in only 23.5% of the cases and all were negative. The surgical treatment in all cases was mastectomy (modified radical mastectomy in 88.2% and simple mastectomy with sentinel node biopsy in 11.8%). Most of the tumors were staged as T4 (43.8%), followed by T2 (31.3%), T1 (12.5%) and T3 (12.5%). The axilla has proved to be involved in 53% of cases. The most frequent stage was III B corresponding to 35.3% of the cases.

Radiotherapy was performed in 64.7% of patients and systemic treatment with hormone therapy was held in 94.1%. Chemotherapy was performed in 76.5% of cases (53.8% neoadjuvant and 46.2% adjuvant). The patients had a mean follow-up of 64.15 months (SD 33.91), and there was no locoregional or distant relapses. During this period there were two deaths (11.76%) from unrelated causes.

Clinical and Pathological Features

Mean age:	54,4 years
Histological type:	
- Classical ICC	82,40%
- Mixed ICC	15,60%
Hormonal receptors:	
- ER	100%
- PR	82,40%
Stages:	
III B	35,30%
III A	17,60%
II B	11,80%
II A	23,50%
I	11,80%

DISCUSSION

In the described population we have found a high rate of locally advanced disease, with the majority (52.9%) of the patients belonging to stage III. Seven (41%) of them needed neoadjuvant chemotherapy and two (11%) needed neoadjuvant hormone therapy to promote cytoreduction before surgery. In the study group we have found a higher rate of lymph nodes involvement (53%) than described in previous studies (14.3%). Even with all these poor prognosis features we observed that there were no recurrences and no deaths related with breast cancer in a mean follow up of 64.15 months.

CONCLUSION

Analysis of our data corroborates that ICC consists in a well-differentiated neoplasm with a favorable clinical course even in locally advanced tumors at diagnosis.