



## BACKGROUND

Neoadjuvant treatment has been widely adopted for the management of patients with triple-negative breast cancer (TNBC). However, the addition of platinum-based drugs to standard neoadjuvant chemotherapy (NAC) is still a matter of controversy. This study aims to explore the outcomes of patients with TNBC following NAC with anthracycline/taxane-based regimens (AC±T) plus carboplatin (CB)

## METHODS

Medical records of women diagnosed with stage IIB or III TNBC treated with NAC between 2011-2019 in a center in Monterrey, Mexico were reviewed. Recurrence-free survival (RFS) was calculated with the Kaplan-Meier method. The  $\chi^2$  and Log-rank tests were used to explore associations between variables.

## RESULTS

A total of 118 patients with a median follow-up of 28 months (95%CI 22.51-33.49) were analyzed, of which 26 had stage IIB (22%) and 92 stage III (78%). Median age at diagnosis was 45 years (range 25-87). Overall, 32 (27%) patients received AC±T plus CB, while 86 (73%) received AC±T only. Other than young age ( $\leq 40$  years), no significant differences were found between the platinum and non-platinum groups (**Table**). Pathological complete response (pCR) rates were significantly higher in patients receiving AC±T plus CB (44% v 25%; RR=1.77, 95%CI 1.03-3.04). Those who achieved a pCR had a superior 2-year RFS (88%, 95%CI 76.73-99.07) than those who did not (53%, 95%CI 41.64-64.76) ( $p=0.001$ )(**Figure 1**). Nonetheless, no significant difference in 2-year RFS was found between patients who received CB (64%, 95%CI 43.42-84.18) and those who did not (62%, 95%CI 51.42-72.98) ( $p=0.694$ ) (**Figure 2**).

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Table. Clinicopathological characteristics. *N* (%). Missing values not shown.

Variable	Patient group		<i>p</i> -value
	Non-CB containing NAC	CB containing NAC	
<b>N</b>	86	32	
<b>Age (years)</b>			<0.001
$\leq 40$	17 (20)	17 (53)	
>40	69 (80)	15 (47)	
<b>Tumoral size</b>			0.98
T1-T2	19 (22)	7 (22)	
T3-T4	67 (78)	25 (78)	
<b>Nodal status</b>			0.99
0	8 (9)	3 (9)	
1-3	78 (91)	29 (91)	
<b>Grade</b>			0.66
1-2	16 (21)	5 (17)	
3	60 (79)	24 (83)	
<b>Stage</b>			0.60
IIB	20 (23)	6 (19)	
III	66 (77)	26 (81)	

## CONCLUSIONS

The use of CB in the neoadjuvant setting increases pCR rates in patients with TNBC. However, its use was not significantly associated with better RFS. Larger studies that assess long-term outcomes in patients with TNBC following standard NAC plus CB are warranted.

Figure 1. RFS according to pCR status.

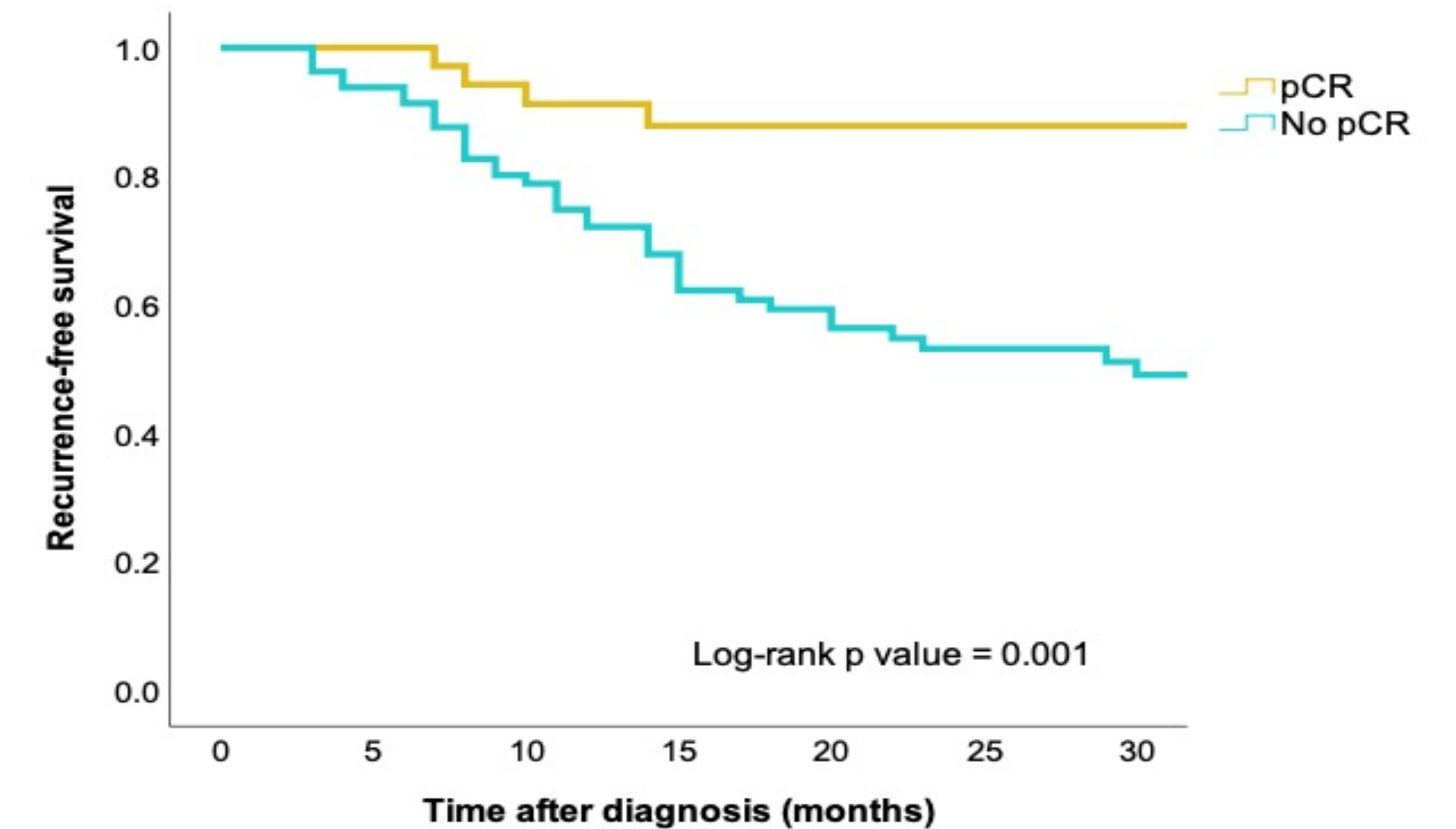
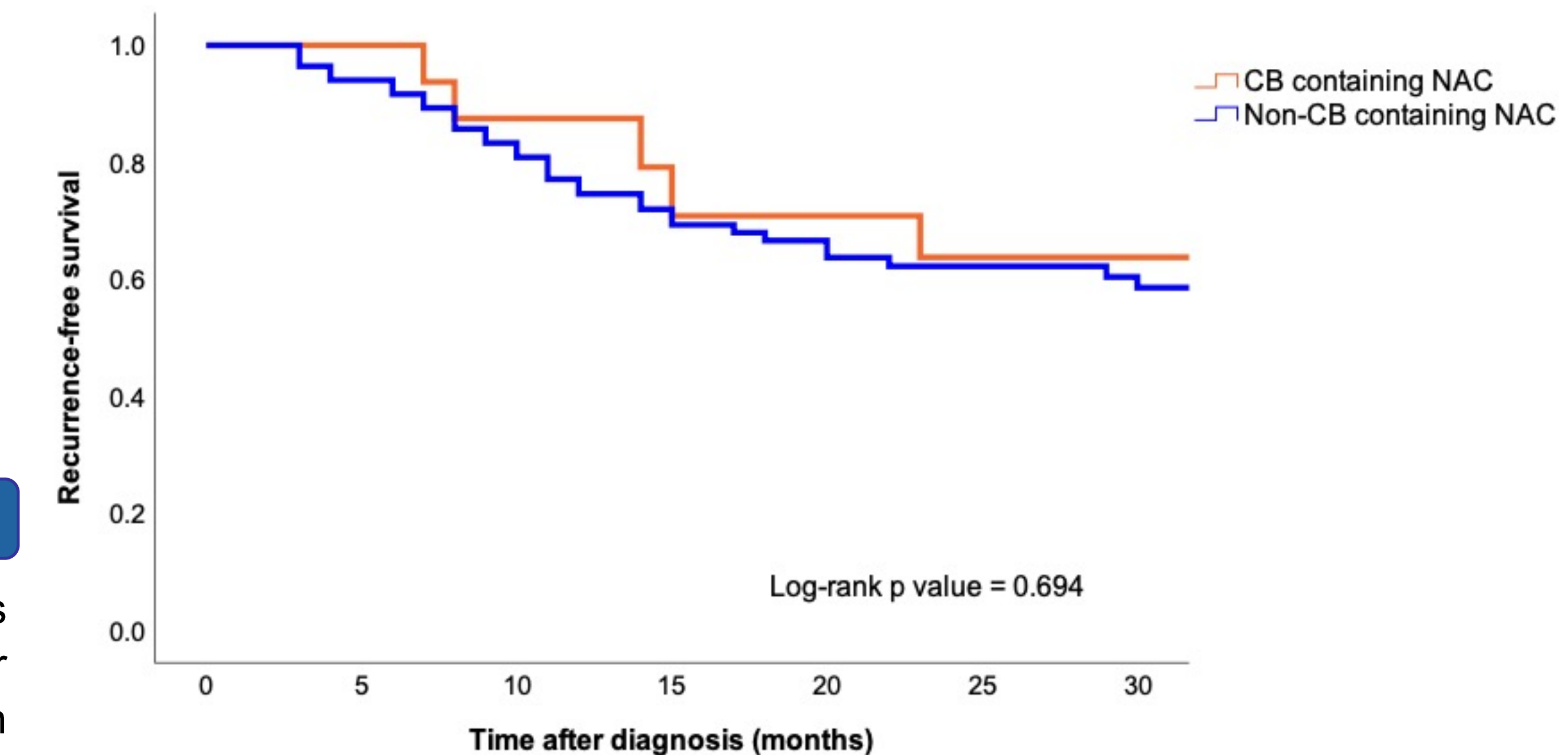


Figure 2. RFS according to CB-containing NAC group.



The authors declare that there is no conflict of interest.