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INTRODUCTION

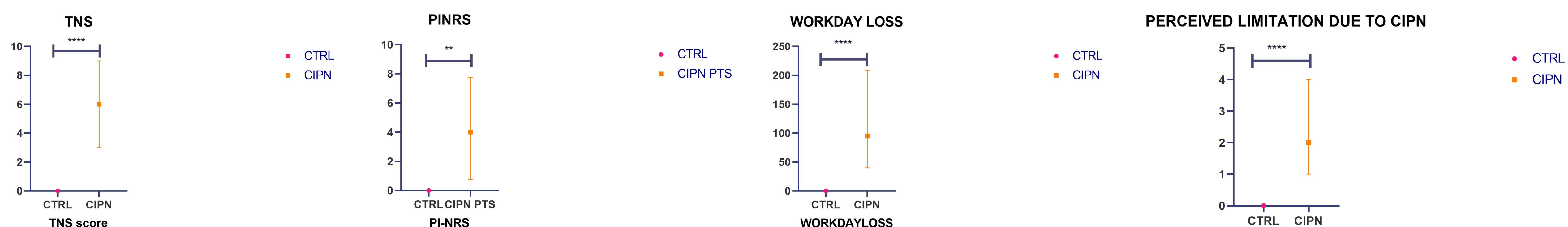
Chemotherapy Induced Peripheral Neurotoxicity (CIPN) is a potentially persistent adverse event of the most used anticancer regimens. CIPN key features are sensory loss and/or neuropathic pain at limb extremities. Loss of sensation can be so pronounced that sensory ataxia ensues altering manual dexterity and gait, even in absence of an actual motor impairment. A condition such as this could have quite an impact on the working ability of the affected subject; however, the socio-economic burden related CIPN is still understudied and there are no actual policies to address these issues. To try to fill this gap we devised a preliminary and pilot study collecting health economics parameters in cancer patients affected by stable CIPN.

METHODS

We enrolled two populations: cancer patients before starting any neurotoxic regimen (control group, TNSc score 0) and patients affected by CIPN whose condition was stable in the last 3 months. TNSc, DN₄ scale and Jamar grooved pegboard test were used to detect and measure CIPN. Health-economics variables were collected both for the enrolled subject and eventual other subject(s) participating to the family income: to this end, the SHARE questionnaire was adapted.

RESULTS

- We have enrolled 25 cancer patients:
 - 12 before chemotherapy administration (0 score on all parameters as per enrolment criteria),
 - 13 affected by CIPN.
- We have collected, for the first time, patient-level information related to the socio-economic burden given by CIPN, matching this with a state-of-the-art CIPN assessment.
- CIPN group showed a median score on TNSc equal to 6 (Q1: 5; Q3: 8) and all patients were graded either grade I or II on this scale.
- PI-NRS median score in CIPN group was 4 (Q1: 0.75; Q3: 7.75).
- The median amount of workday-loss in CIPN patients was 95 days (Q1: 40; Q3: 209).
- CIPN patients reported a significant effect of their clinical condition on daily life with a median score of 2 (Q1: 1; Q3: 4. Scores on this scale: 1= I do not agree; 2= I agree only a little; 3= I pretty much agree; 4= I totally agree).



Figures show median and interquartile range values.

CONCLUSIONS

We acknowledge that we are presenting a proof-of-concept and pilot study; however, we obtained preliminary evidence that CIPN socio-economic burden in cancer survivors is not irrelevant. Starting from this pilot phase, we are planning to build an international multicenter trial to accurately monitor and detect the wholeness of CIPN phenomenon, including the health economics impact. **Funding: Bicocca starting grant (UNIMIB).**