INFLAMMATORY BURDEN ASSESSMENT CONSIDERING DISEASE EXTENT AND PREDICTION OF TREATMENT FAILURE IN ULCERATIVE COLITIS - DUBLIN SCORE

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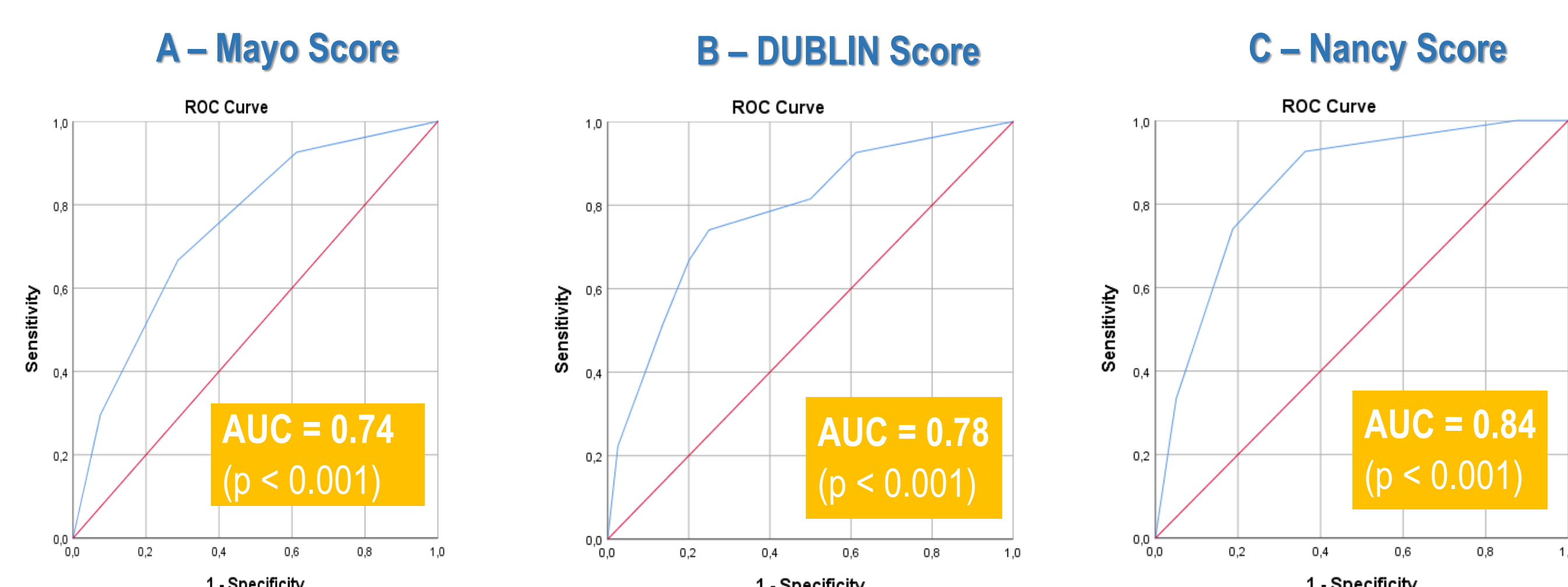
BACKGROUND & AIMS

The recently developed DUBLIN (Degree of Ulcerative Colitis Burden of Luminal Inflammation) score allows the simultaneous evaluation of disease activity and extent in Ulcerative Colitis (UC). The aim of this study was to evaluate the DUBLIN score as a predictor of therapeutic failure and clinical remission. The secondary aim was to associate endoscopic and histological activity scores and to evaluate their joint performance in predicting clinical outcomes.

METHODS

- Retrospective cohort study.
- Consecutive inclusion of patients undergoing total colonoscopy with serial biopsies between 2016 and 2019
  - The DUBLIN score (0-9) was calculated as the product of the Mayo endoscopic score (0-3) by the extent of the disease (E1-E3).
  - Nancy score (0-4) was obtained to evaluate histological activity.

The scores obtained were correlated with biomarkers, treatment failure (therapeutic escalation, hospitalization and/or colectomy) and clinical remission at 6 months (Mayo partial score <2).
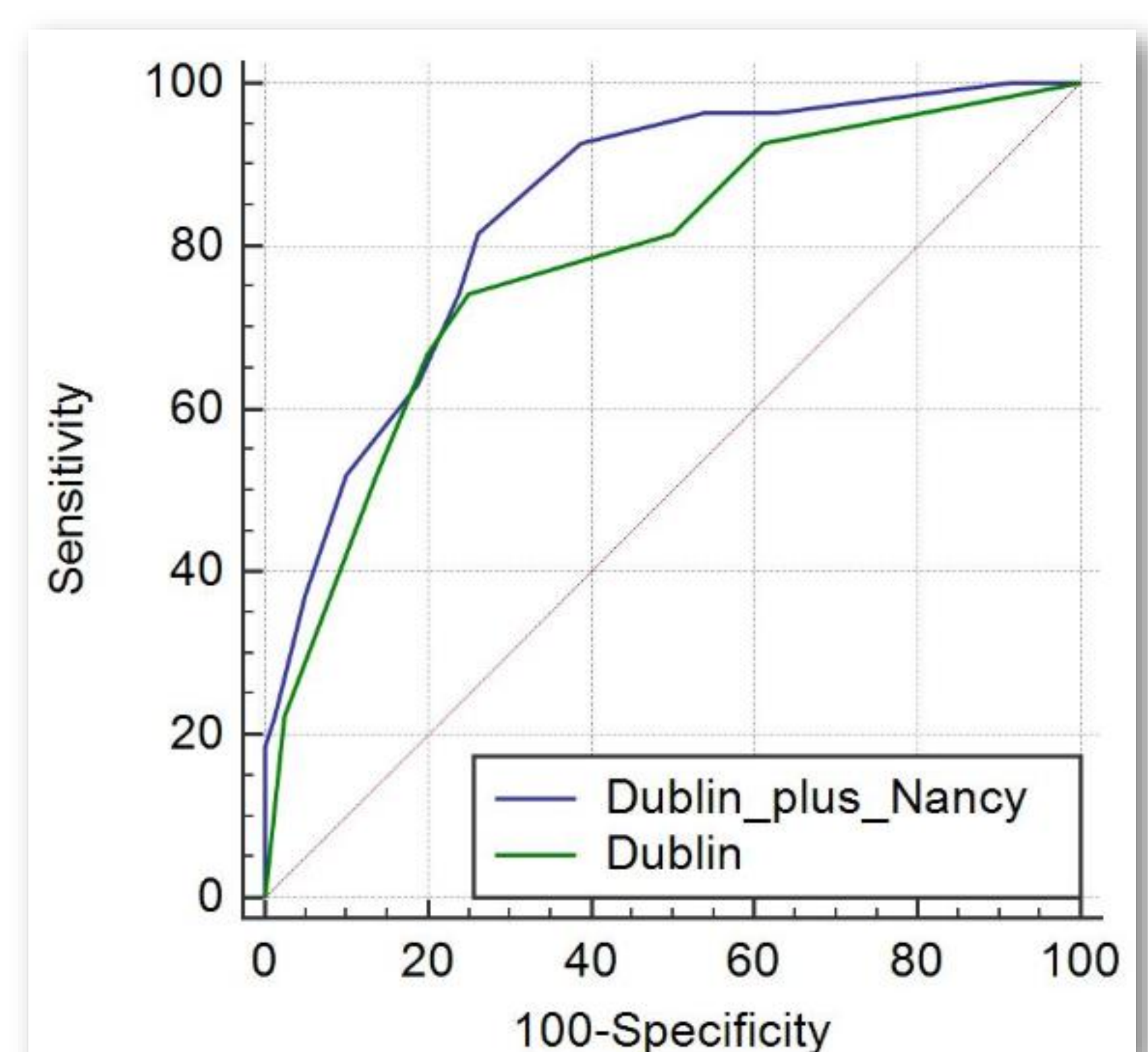
RESULTS

Figure 1: Areas under the ROC curve for treatment failure. (A) Mayo Score; (B) DUBLIN score; (C) Nancy Score. Significance level p< 0.05. AUC, *Area under the curve.*

	DUBLIN	DUBLIN+NANCY	Δ	*P value*
AUC	0.78	0.84	0.062	**0.003**

Joint evaluation of endoscopic and histological activity by combining the DUBLIN and Nancy scores was associated with therapeutic failure with a significantly higher AUC of 0.84 (p <0.001) compared to the DUBLIN score alone (p = 0.003; DeLong et al.)

Figure 3: Comparison of areas under the ROC curve between DUBLIN score alone and joint evaluation of endoscopic and histological activity by combining the DUBLIN and Nancy scores. Significance level < 0.05. AUC, *Area under the curve. DeLong et al. method for comparison between ROC curves.*

CONCLUSION

Mayo and DUBLIN endoscopic scores correlated with each other and with histological activity in UC. The joint evaluation of endoscopic and histological activity allowed to predict with greater accuracy the therapeutic failure.

REFERENCES

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