Predictive Value of Preoperative APRI for Native Liver Survival in Biliary Atresia

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INTRODUCTION

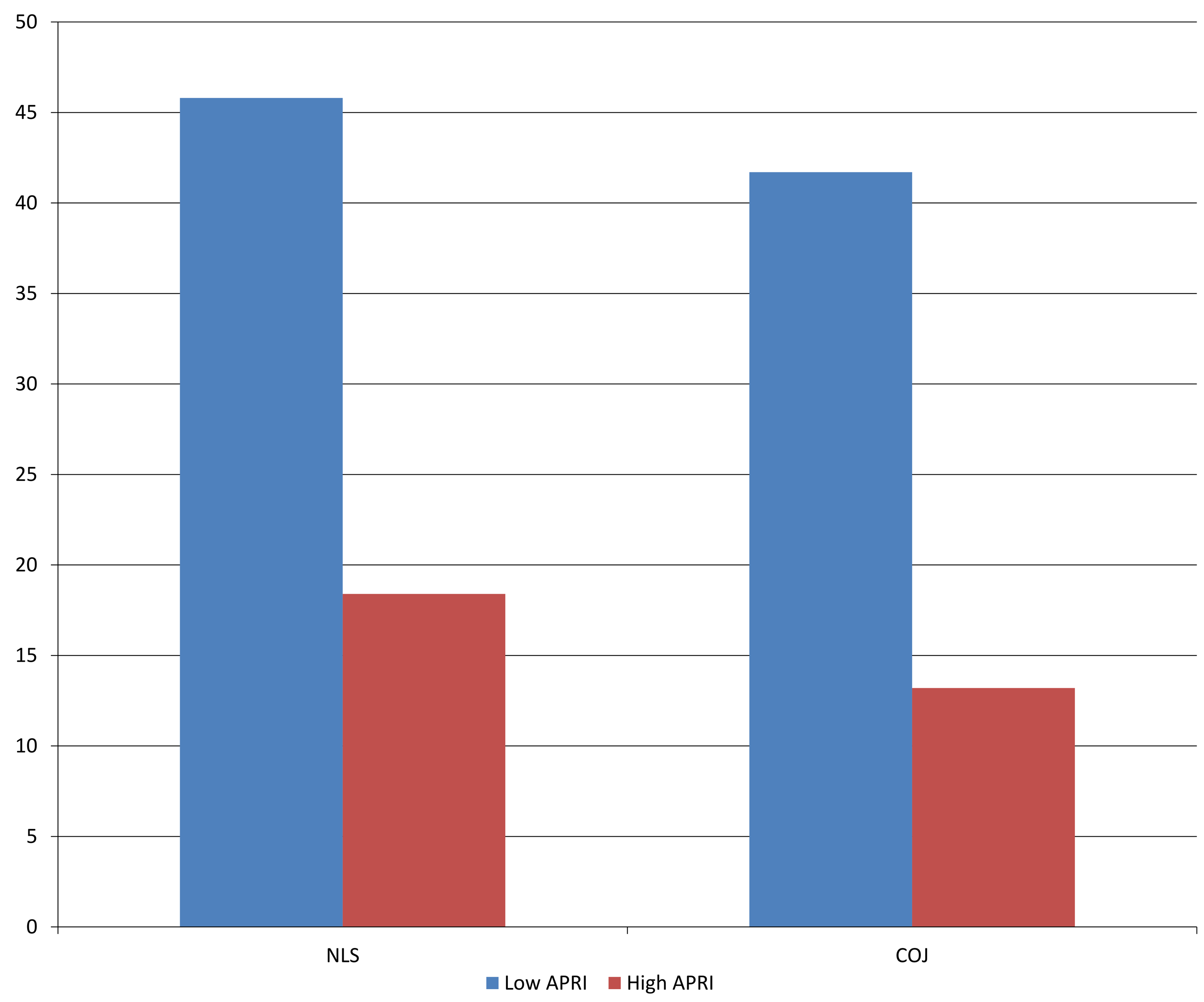
- Biliary atresia (BA) is a progressive fibro-obliterative cholangiopathy.
- Early Kasai portoenterostomy (KPE) improves outcomes, but prognostic biomarkers are limited.
- We evaluated Aspartate Aminotransferase-to-Platelet Ratio Index (APRI) as a predictor of native liver survival (NLS).

METHODS

- Retrospective review (2007–2023)
- n = 62 infants undergoing KPE
- Preoperative APRI calculated (AST / Platelets)
- Histology (fibrosis, DPM) and CMV IgM reviewed
- Outcomes: NLS & clearance of jaundice (COJ)
- ROC analysis for APRI cut-offs

RESULTS

- NLS achieved in 30.6% (n=19)
- COJ achieved in 24.2% (n=15)
- Lower APRI → higher NLS & COJ
- APRI cut-off ≤0.65 → Sensitivity 74%, Specificity 52%(NLS)
  → Sensitivity 78,5%, Specificity 80%(COJ)
- APRI not correlated with histological fibrosis
- CMV IgM+ → higher APRI, no effect on NLS



CONCLUSION

APRI is a simple, cost-effective, non-invasive biomarker.
It predicts both NLS and COJ after KPE.
APRI reflects liver inflammation/function rather than fibrosis.
We recommend integrating APRI into preoperative protocols, especially in resource-limited settings.

📝 What this study adds:
- APRI predicts outcomes better than histology.
- Easily applicable in clinical practice.