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Rare histological variants of prostate adenocarcinoma (PCa): A National Cancer Database (NCDB) analysis

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Rare histological variants of prostate adenocarcinoma (PCa): A National Cancer Database (NCDB) analysis.

Introduction

- American Joint Committee on Cancer (AJCC) recognizes five rare histological variants of PCa.
- Several single institution studies describing the presentation and overall survival (OS) of these variants exist.
- Contemporary national data is lacking.
- Our aim was to describe the contemporary presentation and overall survival of these rare variants of prostate adenocarcinoma.

Rare histological variants of prostate adenocarcinoma (PCa): A National Cancer Database (NCDB) analysis.

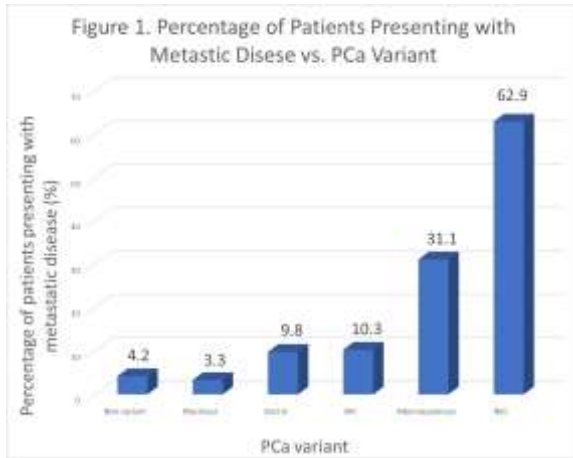
Materials and Methods

- From 2004-2015, we selected cases of mucinous, ductal, signet ring cell (SRC), adenosquamous, and neuroendocrine (NEC) variants of PCa from the National Cancer Database.
- Characteristics at presentation for each variant were compared with nonvariant PCa.
- Cox regression was used to study the effect of histological subtype on overall mortality.

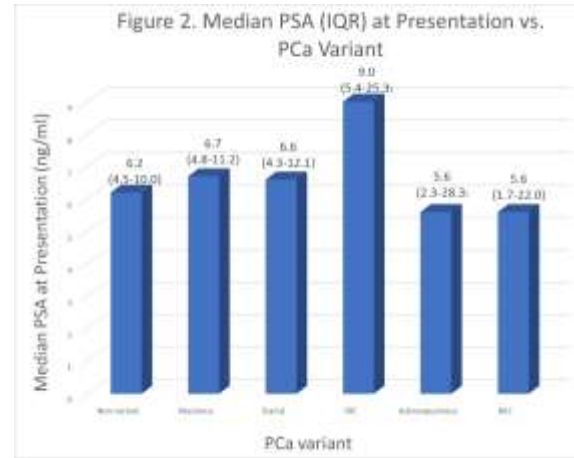
Rare histological variants of prostate adenocarcinoma (PCa): A National Cancer Database (NCDB) analysis.

Results

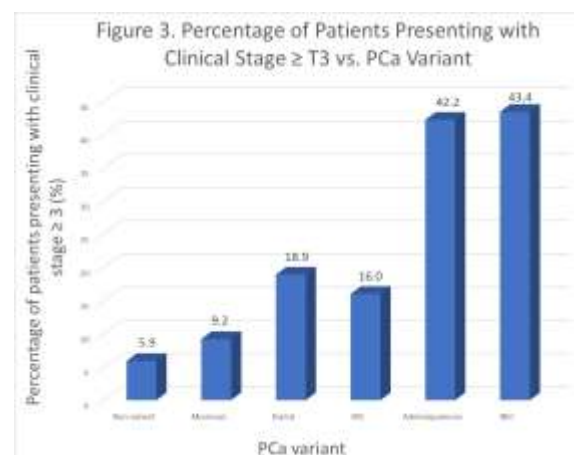
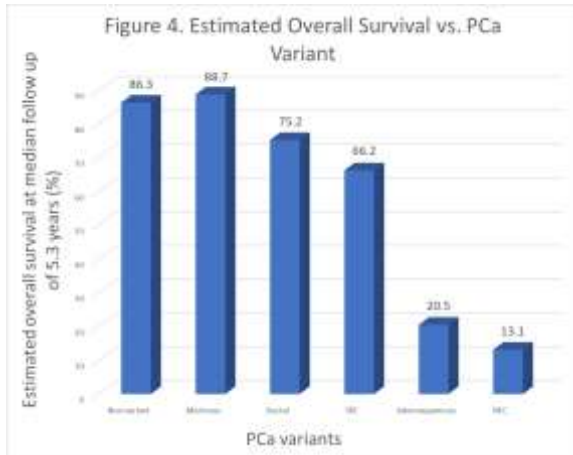
- <1 percent (0.38%) of patients presented with rare-variant PCa.
- All variants had a higher clinical T stage at presentation than nonvariant PCa.
- Metastatic disease was most common with NEC (62.9%), followed by adenosquamous (31.1%), SRC (10.3%), and ductal (9.8%) variants, compared to 4.2% in nonvariant PCa.
- Metastatic disease in mucinous was similar to nonvariant PCa ($p = 0.15$).
- SRC, mucinous, and ductal variants presented with a significantly higher PSA and higher biopsy grade.
- Estimated 5-year OS was highest in mucinous variant (89.3%), followed by nonvariant (87.2%), ductal (76.4%), SRC (67.0%), adenosquamous (20.5%), and NEC PCa (13.4%).
- Variant histology was an independent predictor of mortality on cox regression.



*All $p < 0.001$ except mucinous ($p = 0.15$)



*SRC, mucinous, and ductal variants presented with significantly higher PSA (all $p < 0.001$)



Conclusions

- There are differences in the presentation and OS among rare variants of PCa.
- NEC, adenosquamous, SRC, and ductal variants more commonly present with metastatic disease.
- All variants present with a higher local stage than nonvariant PCa.
- NEC variant is associated with the worst, and mucinous variant with the best OS.

- Won the best poster prize at EAU Barcelona
- Being presented at AUA Chicago as we speak