IMPACT OF CRYOPROBE DENSITY (CPD) ON TOTAL AND FOCAL CRYOTHERAPY FOR PROSTATE CANCER

Authors: Saila Khan, MD¹; Meredith Akerman, MS²; Mary Palmer¹; Amanda Le Sueur, PhD¹; Anthony Corcoran, MD¹; Aaron E. Katz, MD¹*.  

¹Department of Urology NYU Winthrop Hospital, Mineola, New York  
²Department of Biostatistics NYU Winthrop Hospital, Mineola, New York  

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**Introduction:**
- Cryotherapy is a minimally invasive procedure for prostate cancer treatment.

**Objective:**
- We aim to evaluate the relationship between CryoProbe density (CPD) and higher rate reductions in PSA following total and focal cryotherapy for prostate cancer.

**Methods:**
- Data has been utilized from NYU Winthrop Hospital’s Prostate Cancer Database (n=1160).
- A Spearman correlation coefficient was used.
- CPD was measured based on number of probes used during cryotherapy and prostate volume.
- Other continuous measures include PSA values before and after cryotherapy, date difference between date of cryotherapy and date of PSA nadir, and percentage of PSA reduction at nadir following cryotherapy.
For focal cryotherapy subjects (n= 91)

- An 80% median reduction of PSA value to nadir.
- There was a negative correlation between CPD and PSA value after cryotherapy ($\rho = -0.296$, $p<0.005$).
- An increased percentage of PSA reduction at nadir was associated with higher probe density ($\rho = 0.232$, $p<0.035$).

For total cryotherapy subjects (n= 38)

- A 96% median reduction of PSA value to nadir.
- There was a negative correlation between CPD and PSA value after cryotherapy ($\rho = -0.328$, $p<0.045$).
- There was no significant association between probe density and percentage of PSA reduction at nadir after cryotherapy ($\rho = 0.246$, $p<0.190$).

Conclusions:

- Based upon our data, CPD may have a significant effect on PSA reduction after cryotherapy.
- We can use this information to provide a platform for advanced research.