Bothersome Hematospermia Following Stereotactic Body Radiation Therapy for Prostate Cancer

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Background

Hematospermia following prostate radiation therapy is a benign and often self-limiting side effect. However, it may be bothersome to some men and their partners with a negative impact on sexual quality of life (QOL). This study sought to evaluate the incidence, duration, and resolution of hematospermia in patients following stereotactic body radiation therapy (SBRT) for prostate cancer.

Methods

Retrospective review of 227 patients treated with SBRT (2013-2019) for localized prostate carcinoma with minimum two-years follow. Exclusion: Patients >70 years, patient received hormonal therapy. Hematospermia was defined as bright red blood in the ejaculate. Data on hematospermia included duration, resolution, and recurrence. Utilization of 5-alpha reductase inhibitors was documented at each visit.

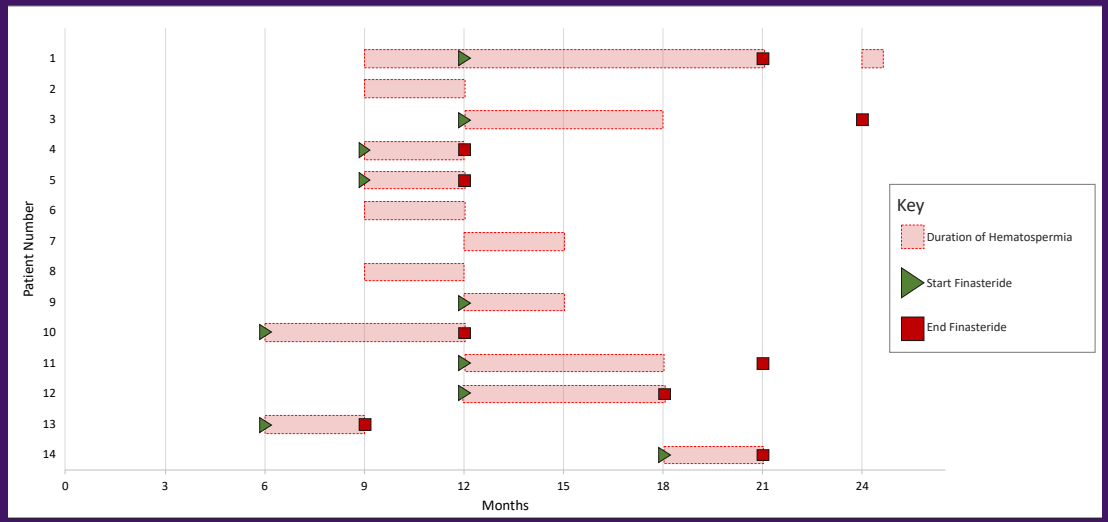
Results

227 patients (45 low-, 177 intermediate-, and 5 high-risk according to the D'Amico classification). Median age of 65 years (range 47-70). The 2-year cumulative incidence of hematospermia was 5.6% (14 patients). All but one patient (93%) saw resolution of their hematospermia by two years post-SBRT. The median time to hematospermia was 9 months post-treatment. 10 patients with hematospermia (70%) were managed with 5-alpha reductase inhibitors. Hematospermia was transient in most patients with 70% of the men reporting resolution by the next follow-up visit.

Conclusions

The incidence of bothersome hematospermia following SBRT was low. Hematospermia, as noted by other studies, often self-resolves. 5-alpha reductase inhibitors may lead to quicker resolution of bothersome hematospermia

Hematospermia is a *bothersome, self-limiting* symptom experienced by a small percentage of men following prostate SBRT



Demographics and baseline patient characteristics

	N	(%)
Age, years		
Median (IQR)	65	(62 , 68)
BMI, kg/m^2		
Median (IQR)	28.2	(25.8 , 31.2)
<18.5	2	(0.9%)
18.5 -24.9	37	(17.1%)
25 - 29.9	103	(47.7%)
30-39.9	67	(31.0%)
>40	7	(3.2%)
Prostate volume (cc)		
<40	131	(57.7%)
40-60	65	(28.6%)
>60	31	(13.7%)
α1 receptor antagonist		
Yes	197	(88.3%)
No	26	(11.7%)
PDE5 inhibitor		
Yes	49	(21.7%)
No	177	(78.3%)
Anticoagulant		
Yes	28	(12.3%)
No	90	(76.3%)
Missing	109	(48.0%)
Testosterone, ng/dL		
Median (IQR)	373	(287 , 483)

Hematospermia cohort

Patients experiencing HS, *n*	14	
HS events, *n*	16	
Time to first HS, median months (IQR)	9	(9 , 12)
First HS duration, median months (range)	3	(3 , 12)

	Receiving Finasteride				Cumulative clearance of hematospermia	
	Yes	(%)	No	(%)	*n*	(%)
Treatment start	0		0		0	
1 month	0		0		0	
3 months	0		0		0	
6 months	2	(100.0%)	0	(0.0%)	0	(0.0%)
9 months	2	(33.3%)	4	(66.7%)	1	(14.3%)
12 months	3	(50.0%)	3	(50.0%)	7	(53.8%)
15 months	1	(100.0%)	0	(0.0%)	7	(87.5%)
18 months	2	(100.0%)	0	(0.0%)	10	(83.3%)
21 months	0		0		11	(100.0%)
24 months	0	(0.0%)	1	(100.0%)	10	(90.9%)

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