

RADIATION CYSTITIS



Prostate cancer survivor P.M. contacted the free Prostate Cancer Research Institute Helpline with the following situation.

P.M., age 66, had prostate external beam radiation 8 years ago, and remains in remission. Recently he had blood in his urine that became so heavy he developed a clot that stopped urine flow out of the bladder and put him in the hospital with extreme pain. A catheter was installed for six weeks and symptoms subsided. His urologist diagnosed radiation cystitis caused by the radiation therapy 8 years ago. A few months later he had another similar event. What are the causes, risk factors, treatment options, and prognosis for radiation cystitis?

Dr. Stanley Brosman, MD urologist replies.

A potential, but fortunately, an infrequent complication following radiation therapy for the treatment of prostate cancer is the development of radiation cystitis which is usually associated with urethritis and/or radiation proctitis. Bloody urine is the primary symptom and the diagnostic confirmatory test is a cystoscopy. The surface of the urethra and the lower portion of the bladder develop clusters of abnormal blood vessels that are very delicate and can open up and bleed. Straining may precipitate such an event. If the cystoscopy is performed at a time of active bleeding the offending blood vessels can be identified and cauterized. Sometimes this can be managed in the office or, if there are many affected blood vessels, the cystoscopy and cauterization may be done in the hospital or outpatient surgical unit with an anesthetic.

The urinary bleeding may appear within a few years following completion of radiation therapy and in some instances, not for many years. The problem can be recurrent and repeated cauterizations may be necessary. The type of radiation therapy does not seem to matter. The cystoscopy is critical in order to make the diagnosis since there are many other causes for blood in the urine.

The presence of bloody urine is an alarm indicating that a problem exists that needs to be urgently addressed. Blood clots can form and obstruct the outflow of urine necessitating the placement of a catheter and irrigation of the bladder to remove the clots and establish a proper urine flow. There are no medicines to treat this problem. In some circumstances, hyperbaric oxygen is effective. The problem is compounded in those patients that are taking blood thinners, such as coumadin or aspirin

DEFINITIONS:

Cystitis: inflammation of the bladder

Urethritis: inflammation of the urethra

Proctitis: inflammation of the rectum

Cystoscopy: using a special scope inserted through the penis, visual inspection inside the bladder

Cauterization: using heat to seal off blood vessels to prevent bleeding.



Stanley Brosman, MD

Stanley Brosman MD is a Clinical Professor of Urology at UCLA and practices in Santa Monica, California. He specializes in urologic oncology. He has authored numerous papers and textbook chapters and has delivered lectures throughout the world. He is actively involved in clinical and laboratory research involving cancers of the urinary tract. He is on the Board of Directors of the PCRI.