The Use of Intravesical Formalin for Hemorrhagic cystitis: Our Experience

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Introduction

The hemorrhagic cystitis is defined by lower urinary tract symptoms that include hematuria and irritative voiding symptoms. It results from damage to the bladder's transitional epithelium and blood vessels by toxins, pathogens, radiation, drugs, or disease. The radiation cystitis lesions are secondary to irradiation of the pelvic organs. They can range from simple inflammatory reaction to the almost complete retraction of the bladder; they can also be deadly through hemorrhage. Its risk factors are radiation dose, irradiated volume, the fractionation and the method of irradiation.

We report 6 cases of hemorrhagic cystitis post-radiotherapy treated with intravesical formalin.

Case Report(s)

Over a period of two years (January 2010 - January 2012) was compiled in our training six cases of hemorrhagic cystitis (5 women and one man). All these patients received pelvic radiotherapy on average 15 months before the installation of this hemorrhagic cystitis. The five women received radiotherapy for cancer of the cervix, and the man had radiotherapy for prostate cancer. 4 patients required a blood transfusion in emergency for a severe anemia due to the haematuria. Renal function was normal in all our patients and urinalysis was also negative (no urinary infection). A scanner was performed in all our patients for eliminating a tumor who can explain their haematuria. A cystoscopy performed showed an aspect of cystitis, bleeding easily on contact and a single biopsy was done and showed an aspect of non specific cystitis.

Initial treatment based on bladder irrigation and medical treatment with haemostatic was introduced without being able to stop the haematuria. We conducted an intravesical formalin, under regional anesthesia (spinal anesthesia). Formalin was diluted to 5% with sterile water, and a volume of 50 cc was instilled intravesical for 20 minutes.

The haematuria stopped an average of 12 hours after instillation, and only one patient complained of bladder pain after instillation for which she received analgesics. The average hospital stay was 6 days. With a decline of 9 months on average, none of our patients had recurrence of haematuria.

Discussion

The manifestations of radiation cystitis occurs beyond 3 months of the end of irradiation (up to several years). The frequency is 5 to 10%. Their most important clinical sign is recurrent haematuria. It is necessary first to eliminate a urinary tract infection and tumor recurrence who could explain the bleeding. Radiological examinations (scanner) and endoscopic (cystoscopy) confirm the diagnosis. The treatment of haematuria in hemorrhagic cystitis is primarily symptomatic (hyper-diuresis, bladder irrigation, medical treatment with haemostatic). Electrocoagulation can be dangerous (risk of necrosis, perforation and fistula). The use of Intravesical formalin is most effective with a success rate of 70 to 80% (100% in our patients). Formalin is instilled under anesthesia. Other products can be used (silver nitrate, alum) but with less efficiency. Hyperbaric oxygen also gives good results but requires a large number of sessions (average 20). In our training, the use of formalin has been beneficial to our patients with no side effects. This instillation remains the best alternative for us in case of failure of the symptomatic treatment.

Conclusion

Hemorrhagic cystitis raises the issue of therapeutic management. The use of formalin instillation intravesical gives good results with few side effects on failure of symptomatic treatment. The use of new radiotherapy techniques and energy sources, can minimize the risk of radiation cystitis and also the risk of hemorrhagic cystitis.

References
1 Jérôme RIGAUD, Jean-François HETET, Olivier BOUCHOT; Prise en charge de la cystite radique; Progrès en Urologie (2004), 14, 568-57
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