5-2019

Impact of Hospital Teaching Status on Healthcare Utilization, Length of Stay (LOS), and Cost of Hospitalization of Radiation Cystitis (RC) in the United States

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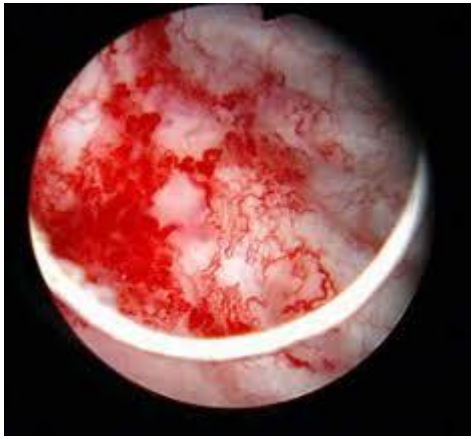
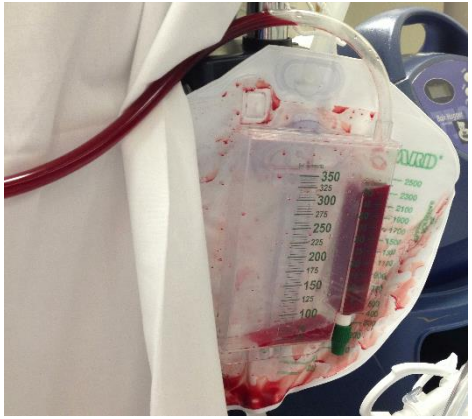
Introduction

- Radiation cystitis
  - Major cause of morbidity after radiotherapy for pelvic cancers.
  - might be a more frequent problem than previously thought,
    - Consisting of 1.4% of all elective admissions to a Urology;
    - Many patients never admitted to urology
    - Presentation beyond the follow up of clinical trials
    - actual prevalence not known.
  - No definitive cure
  - Repeated admission to inpatient care, often undergoing multiple urological procedures for management of hematuria.
  - Intractable cases may require morbid procedures like cystectomy!!
  - No population based data on practice patterns (what is the best practice for management? Do teaching hospitals manage RC patients differently?)
  - Scanty funding for research





Materials and Methods

- Sample:
  - 13,272 admissions for RC between 2008-2014 within the NIS.
  - Patients with concurrent diagnosis of other bladder conditions (n=914) were excluded.
- ICD-9 diagnosis and procedure codes were used to study inpatient procedures performed during admission.
- Practice patterns compared between teaching and nonteaching hospitals:
  - Type of admissions,
  - Receipt of a procedure,
  - Type of procedures performed,
  - LOS, Total inflation-adjusted costs.
- Complex survey chi-squared test and analysis of variance procedures were used to account for the NIS sampling design.

Teaching: 80%; Nonteaching: 85%
P<0.001

Teaching: 21%;Nonteaching: 24%
P=0.004

Receipt of a procedure:
Teaching: 65%; Nonteaching: 60%; P<0.001

More than one procedure
Teaching: 29%; Nonteaching: 25%; P<0.001

More complex procedures like cystectomy were almost exclusively performed at TH (cystectomy 2.4% in TH vs 0.4% in NTH; p <0.001)

Teaching:
10,377$

NonTeaching:
8504$

p<0.001

Conclusions

- RC are more frequently admitted to the emergency department in NTH.
- Patients admitted to TH receive a procedure more often, receive a higher number of procedures, and more complex procedures, compared to NTH, explaining the higher cost of admission in TH.
- Further research is needed to study the practice patterns in readmission rates, and outcomes of patients treated in both types of health systems to know the best practices that can reduce morbidity and readmissions
- Plea for more funding for research on this topic