BRACHYTHERAPY-INDUCED PENILE NECROSIS TREATED WITH HYPERBARIC OXYGEN
Evans AW*, Levin W, Crock J
Department of Radiation Oncology, Princess Margaret Hospital, *Hyperbaric Medicine Unit, Toronto General Hospital, University Health Network, University of Toronto, Toronto, Ontario, Canada

BACKGROUND:
A case is described where (HBOT) was successfully employed in the management of a urological soft tissue radiation injury.

MATERIALS AND METHODS:
- Male age 49
- 2.5 x 3 cm T3 squamous cell carcinoma (ventral surface of the glans penis - deeply infiltrating)
- Options:
  - penile amputation
  - brachytherapy combined with a groin node dissection
- Post radiotherapy residual 2 cm (painful) ulceration at previous tumor site.
- Post RT 14 months: lesion unresolved
- Commenced six week course of hyperbaric oxygen therapy

RESULTS: (see timeline graph)
- Post 9 treatments:
  - Symptomatic relief was dramatic with ulcer decreased size; discontinued narcotic analgesia.
  - Seven-week interruption due to SARS:
  - Reoccurrence of pain without clinical change in the ulcer.
- HBOT re-commenced
  - Further healing and symptomatic improvement (although healing remained incomplete at the conclusion of the 40-treatment series)
  - Post 3 months: Pain recurrence and the necrotic ulcer extended and became cavitating.
  - Partial penectomy and/or reconstructive surgery were considered.
  - HBOT re-commenced [four-week course]
  - Essentially complete healing prior to surgical date.
  - Skin sensation in the area of ulceration returned.
- The patient is currently pain free and surgery has been cancelled (aside from minor recent toilet surgery).

CONCLUSIONS:
The post-radiotherapy morbidity suffered by this patient was dramatically altered by repeated courses of hyperbaric oxygen therapy to achieve healing, resulting in the improvement in quality of life and avoidance of salvage surgery. The use of HBOT should be considered early in the evolution of radiotherapy late effects.

REFERENCES: