
# EXPERT REPORT

Best Doctors®

Name: [redacted]

Date of Birth: [redacted]

# Best Doctors Report Summary

This Best Doctors' Report Summary highlights and clarifies the key points of your Expert report(s).

You can use this as an aid when you read the report(s) and in the future when you review and discuss the report(s) with your treating physician(s). We are always available to you and your treating team should there be any additional questions or concerns.

Dr. Salner has reviewed your case and recommends that you and your treating physician(s) review and consider the following assessment and options:

With regards to your diagnosis and workup:

- Dr. Salner agrees that you have a squamous cell carcinoma of the left tonsil that only involves the tonsil and not the lymph nodes
- The cancer was caught early and is highly curable (with appropriate treatment there is a good chance it will go away permanently)
- Dr. Salner recommends a visit with a dentist prior to starting radiation to make sure that there are no dental problems that need fixing before you start treatment

With regards to your management options:

- Since the cancer was present at the "margin" (edge) of the area where the surgeon cut, there is a chance there are still cancer cells present in the body and therefore additional treatment with radiation is recommended to the tonsil area
- Dr. Salner recommends radiation to the tonsil area (tonsillar fossa) and the upper neck area right around the tonsil with a total dose of 60 Gy
- He also recommends that you see a medical oncologist to discuss whether chemotherapy is recommended in addition to radiation (chemotherapy and radiation are often given together in these situations)
- Dr. Salner has discussed the possible side effects of radiation in his report; careful planning by the radiation oncologist will help minimize these effects by optimizing the radiation to the area it is needed and minimizing radiation to the surrounding healthy tissue
- He does not see any clear advantage to proton therapy in your case right now, though if the cancer had been more advanced or were to come back after treatment these would be situations where there may be more benefit to proton therapy
- During therapy, a dietician and a speech therapist may be helpful to optimize nutrition therapy as well as function of the neck and pharynx (swallowing area)

Regarding follow-up and prognosis:

- Regular follow-up with your physicians is recommended as is a PET scan about 4-6 months after treatment to make sure there is no evidence of residual or additional cancer
- Physical activity and a healthy diet can also help optimize your overall health


1 Boston Place, 32nd Floor | Boston, MA 02108 | Tel. 617.426.3666 | Fax. 617.426.8595 | www.bestdoctors.com

Hartford HealthCare

Cancer Institute

at Hartford Hospital

Name: [redacted]
Date of Birth: [redacted]

Case Overview:
Mr. [redacted] is a 59-year old gentleman with recently diagnosed squamous cell carcinoma of the left tonsil s/p tonsillectomy and left neck dissection and is planning to start radiation therapy who seeks consultation regarding recommendations for further management, specifically whether Proton beam therapy is recommended.

History of Present Illness:
Mr. [redacted] is a 59-year old gentleman who was in good health until late 2017, when he began to suffer from "various throat infections." He noticed a lump in his throat in 12/2017 and saw his GP, who referred him to an ENT specialist. MRI of the neck on 12/18/2017 demonstrated a large focal mass lesion centered on the left palatine tonsil (2.6 X 3cm) with low T1 signal and avid post-contrast enhancement, concerning for a malignancy. The right tonsil was bulky but not enlarged to the extent of the left tonsil. There were bilateral prominent cervical lymph nodes involving levels 2 and 3, measuring up to 12mm in short axis in the right level II region. MRI of the skull base showed the left tonsillar mass as above along with small volume bilateral cervical adenopathy.

CT of the chest on 1/3/2018 showed tiny non-specific pulmonary nodules, unlikely to represent metastatic disease. He then underwent a bilateral tonsillectomy on 1/3/2018 and pathology showed squamous cell carcinoma of the left tonsil, moderately differentiated, 18mm thick and present to the dissected base of the tonsil. Review at another institution confirmed the diagnosis and measured the tumor at least 21mm X 19mm and present at the deep resection margin. Supplementary testing was strongly positive for p16.

PET/CT on 1/25/2018 showed increased uptake in the left tonsillar bed (SUBmax 7.8) and an FDG-avid left cervical lymph node (SUVmax 3.5) with several mildly avid right-sided level 2 lymph nodes (SUVmax 3.6) and mild uptake related to the right tonsil (possibly within normal limits). There was also an FDG avid nodule close to the upper pole of the right lobe of the thyroid (SUVmax 4.9). He underwent a neck dissection on 2/7/2018. Pathology from the left tonsil fossa and anterior pillar showed severe dysplasia. 17 nodes were removed during the neck dissection (levels 3, 4, 2, and 2a) and none showed evidence of metastatic malignancy.

Though no further clinical notes were provided, he states that his doctors discussed radiation therapy. However, he is concerned about the treatment and the effects it will have on him. Additionally, his wife was recently diagnosed with triple negative breast cancer and is about to start neoadjuvant chemotherapy, and they have two young children at home, so he does not want to be sick at the same time of his wife because they need to have someone able to take care of the children. He is interested in Proton beam therapy instead of conventional IMRT radiation, but it is not offered in the UK. He states that he is able to travel if this is the best treatment for him.

As of the most recent update, he stated that "his doctors explained that he does not meet the criteria for Proton Beam therapy due to his type of cancer." He is therefore scheduled to start radiation therapy fairly soon – 60 Gy Monday-Friday for 6 weeks.

Review of Systems:
- Post-operative pain after neck dissection
- Fatigue

Past Medical History:
Testicular cancer 25 years prior, s/p surgery and radiation

Past Surgical History:
ENT surgeries as above

Current Medications:
"Pain medication"

Allergies:
NKDA

Family History:
Maternal grandfather with cancer of unknown type
No other reported family history of malignancy
Mother with dementia and glaucoma
Father with aneurysm

Social History:
He is married and has 2 children
Works as a lecturer
Non-smoker
Occasionally drinks alcohol

Physical Examination:
Height: 6'1"
Weight: 220 pounds
BMI: 29.02

Treating Physician's Assessment and Plan:
Summary:

Mr. [redacted] is a 59-year old gentleman who presented with throat infections and a neck mass and was diagnosed with squamous cell carcinoma of the left tonsil. He is s/p tonsillectomy and left neck dissection with no evidence of nodal metastases or distant metastatic disease. He is planning to start radiation therapy but is concerned about the side effects, particularly since his wife was recently diagnosed with breast cancer and they have two small children and need one of them to be healthy enough to be the caretaker. He has asked his providers about Proton beam therapy but has been told that it is not available in the UK and is not recommended for his particular diagnosis. He seeks consultation regarding recommendations for further management, specifically whether Proton beam therapy is recommended.

- Key testing: MRI neck/skull base, PET/CT scan, pathology from tonsillectomy and neck dissection
- Key treatments to date: Tonsillectomy and neck dissection
- Planned evaluation and treatment: Radiation therapy (IMRT)

**Questions and Expert Assessment:**

**Question 1. What is your overall assessment of the member's condition (diagnosis and staging) based on the information provided for review?**

The member appears to have a P16+ invasive moderately differentiated squamous cell carcinoma of the left tonsil with negative cervical nodes by neck dissection pT2pN0M0 Stage II. This is an early and highly curable scenario.

**Question 2. What additional diagnostic testing do you recommend, if any?**

He will require a pre-irradiation dental visit and appropriate radiographs to ensure that restorable teeth are repaired and non-restorable teeth are extracted.

**Question 3. What treatment options exist (including the current treatment plan for IMRT)? What are the relative advantages and disadvantages of each option? How would you recommend proceeding in this case? He specifically wonders if you recommend Proton beam therapy and why or why not. Please compare and contrast IMRT and Proton beam therapy in terms of efficacy and side effect profile for tonsillar cancer if possible.**

Options include:
1-no further therapy
2-IMRT radiation therapy +/- chemotherapy
3-proton therapy +/- chemotherapy

I would be reluctant to recommend no further therapy. The initial margin of the left tonsillectomy was involved, and even though the subsequent fossa biopsy/tonsillar pillar biopsy were negative, one has to think that there is a high risk of residual microscopic disease in the tumor bed. In addition, the surgical approach was not a radical tonsillectomy either transoral or with a mandibular split aimed at achieving negative margins. Therefore, further definitive therapy is needed to achieve a high likelihood of local control. On the other hand, neck irradiation is less important with pN0 neck findings.

I would therefore favor left oropharynx radiation to the tonsillar fossa and contiguous upper neck to a dose of 60 Gy. Many investigators believe that a positive margin is a high risk feature that suggests that concomitant chemotherapy adds to ultimate local control. I would certainly obtain a medical oncology consultation to determine whether concomitant weekly chemotherapy is warranted. The use of

customized head and neck immobilization, CT based simulation and treatment planning, IMRT treatment planning, and daily image guidance all help to ensure precision and accuracy. Avoiding the contralateral pharynx and neck and salivary gland will help to reduce acute and late effects. Acute effects include fatigue, erythema, hair loss in treated area, taste alteration, mucositis and xerostomia. Ipsilateral IMRT will help to reduce the area of soreness and the extent of dryness and hopefully facilitate maintenance of nutrition and hydration during therapy without the need for a feeding tube. Late effects include fibrosis, pharyngeal dysfunction, xerostomia, and osteoradionecrosis risk. IMRT helps to reduce all of these by carefully positioning the high dose area and minimizing dose to surrounding tissue.

Proton therapy has similar biologic effects as photon therapy with IMRT but has the geographic advantage of less radiation dose in entry and exit transit tissues outside the target volume. In this case, where doses can be delivered successfully to a moderate dose with IMRT, I believe there is relatively little if any advantage to the use of protons. For head and neck cancers that are locally advanced, that are of subtypes with less radiation sensitivity (ie selected salivary cancers), or that are recurrent, there would clearly be a potential advantageous role for protons. I don't see a clear advantage in this setting.

**Question 4. How would you recommend following this patient?**

He will need regular visits with his treating physicians, a followup PET scan some 4-6 months post therapy to ensure that there is no further PET avid disease foci, and other imaging as needed based on signs, symptoms and exam findings.

**Question 5. If not addressed by the questions above, please provide any further recommendations that you believe will aid in understanding this patient's findings or in guiding future therapeutic decisions**.

Physical activity may help to reduce recurrence risk. Exercising a minimum of 150 minutes per week, with exercise a minimum of 5 days per week, may help to reduce cancer recurrence risk. During and after the radiation therapy, the involvement of a dietician and physician and speech therapist will help to optimize nutrition during therapy, and function of his neck, left arm, and pharynx. He will require greater dental surveillance. Diets lower i9n saturated fat and carbohydrates, and higher in vegetables and fruits, and lower in alcohol, may be helpful.

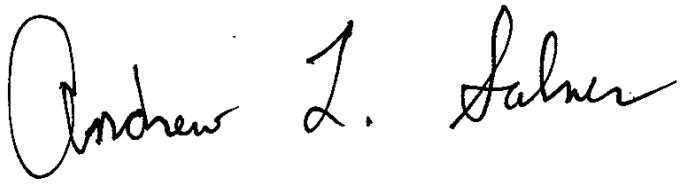
**Question 6. Please provide clinical references that support your assessment/recommendations and that may be helpful to the treating physician.**


1. Charbonneau N, Gélinas M, del Vecchio P, et al. Primary radiotherapy for tonsillar carcinoma: a good alternative to a surgical approach. J Otolaryngol 2006; 35:227.
2. Mendenhall WM, Morris CG, Amdur RJ, et al. Definitive radiotherapy for tonsillar squamous cell carcinoma. Am J Clin Oncol 2006; 29:290.
3. Civantos F, Wenig BL. Transhyoid resection of tongue base and tonsil tumors. Otolaryngol Head Neck Surg 1994; 111:59.
4. Agrawal A, Wenig BL. Resection of cancer of the tongue base and tonsil via the transhyoid approach. Laryngoscope 2000; 110:1802.
5. Moore EJ, Olsen KD, Kasperbauer JL. Transoral robotic surgery for oropharyngeal squamous cell carcinoma: a prospective study of feasibility and functional outcomes. Laryngoscope 2009; 119:2156.

6. Weinstein GS, O'Malley BW Jr, Snyder W, et al. Transoral robotic surgery: radical tonsillectomy. Arch Otolaryngol Head Neck Surg 2007; 133:1220.
7. Weinstein GS, Quon H, Newman HJ, et al. Transoral robotic surgery alone for oropharyngeal cancer: an analysis of local control. Arch Otolaryngol Head Neck Surg 2012; 138:628.
8. Bernier J, Cooper JS, Pajak TF, et al. Defining risk levels in locally advanced head and neck cancers: a comparative analysis of concurrent postoperative radiation plus chemotherapy trials of the EORTC (#22931) and RTOG (# 9501). Head Neck 2005; 27:843.
9. National Comprehensive Cancer Network (NCCN). NCCN Clinical practice guidelines in oncology. http://www.nccn.org/professionals/physician_gls/f_guidelines.asp (Accessed on February 27, 2016).

In summary, the patient presents with a left tonsil P16+ squamous cell cancer, who underwent tonsillectomy with involved margin, and had a neck dissection with all negative nodes. His risk of residual microscopic disease is high, and I would recommend a course of postoperative IMRT radiation therapy. I would recommend consideration of concomitant weekly chemotherapy given the fact that margin involvement is a high risk feature.

Sincerely,



Andrew L. Salner, MD FACR
Director, Helen & Harry Gray Cancer Center
Past Chair, Department of Radiation Oncology
Clinical Professor, University of Connecticut School of Medicine

# Consulted Physician


## Andrew L. Salner

**Radiation Oncology**

Hartford Hospital

Helen and Harry Gray Cancer Center, Hartford Radiation Oncology Associates

85 Retreat Ave

Hartford, CT 06102

US

860-972-2803


## Profile

| | |
|---|---|
| **Fellowship:** | Radiation Therapy Research, Joint Center for Radiation Therapy - 1981 |
| **Intern:** | Hartford Hospital - 1977 |
| **Medical School:** | Brown University School of Medicine - 1976 |
| **Residency:** | Hartford Hospital - 1978 |

## Titles

Clinical Professor of Radiology, University of Connecticut School of Medicine

## Summary

| Specialty | Sub Specialty |
|---|---|
| Radiation Oncology | General Radiation Oncology |