

# HEAD & NECK CANCER CASES

Case #1

Case #2

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Case #4

# Head & Neck Cancer Case 1

A 55-year-old man presents with a history of pain in the right side of his throat for 3 months. On examination, a lesion on the right side of the tonsil is discovered. It is biopsied and found to be a moderately differentiated squamous cell carcinoma.

He undergoes CT scan of the neck, and is found to have a cancer at the base of the tongue, 2 cm in size, extending up to the right tonsil. There are two nodes positive. The tumour harbours HPV-DNA.

1. What risk factors would you inquire about that are more common in patients with a Head & Neck Cancer?
2. What is the more common tumor cell type?
3. Approximately what is the ratio of men to women with a primary head and neck cancer?
4. What is involved in properly staging a patient with a Head and Neck Cancer? Should the oral cavity and pharynx be investigated? If so, why?
5. Does the fact that he does have lymphadenopathy influence what treatment would be appropriate for this patient? How does the HPV status influence prognosis and treatment?

This patient was offered radiotherapy.

6. What acute and long-term toxicities would you expect to occur in this patient population?
7. What is the incidence of hypothyroidism in patients who have received external beam radiation for a Head and Neck primary cancer? How would you screen these patients for hypothyroidism?
8. If this patient was a smoker, and continues to smoke while receiving radiation, are his response rate and/or survival affected?
9. What would be considered appropriate follow-up with respect to the frequency of visits and what, if any investigations?
10. What is the incidence of second primaries in patients with a Head and Neck primary? Where is the most likely site of a second malignancy?

At his one-year follow-up visit, this patient complains of fatigue, anorexia with weight loss of 5 kilograms and shortness of breath on exertion.

11. How would you investigate this patient's symptoms?

His staging investigations confirm 2 lung metastases each measuring less than 3 cm. Bloodwork is within normal limits. There is no evidence of disease elsewhere. He has no other co-morbid conditions.

12. What treatment options are available to him at this time?
13. Would this patient be appropriate to consider for a clinical trial?
14. How would his treatment options be affected if he had other co-morbid illnesses, such as poorly controlled insulin-dependent Diabetes and a history of Ischemic Heart Disease?

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## Head & Neck Cancer Case 2

Mr. C. is a 65-year-old man who presented to his family doctor with a 6-week history of pain in his left ear and throat. He was referred to an ENT specialist and found to have a large ulcerating mass in the left pyriform fossa, which on biopsy was found to be a poorly differentiated squamous cell carcinoma.

On physical examination no enlarged nodes are detected. The patient's complete physical examination is normal.

1. What investigations are needed to help delineate the extent of the patient's disease?

CT reveals a lesion in the left pyriform sinus invading the left aryepiglottic fold, extending to the subglottic trachea, and involving the left thyroid cartilage and left hyoid bone. Bilateral lymph nodes are suspicious for metastases.

2. What stage of disease does this patient have? (assume positive nodes)
3. What treatment option(s)/strategies are available to this patient from the perspectives of chemotherapy, radiotherapy and surgery?

Mr. C. was offered laryngectomy, bilateral neck dissection and post-operative combined modality therapy in the form of concurrent platinum-based chemotherapy and radiation.

4. How is this treatment administered?
5. What side effects would you expect from this therapy?
6. Maintaining adequate hydration and nutrition during concurrent chemoradiotherapy is extremely difficult. How is this normally addressed?
7. If he declines this treatment, what would be an appropriate alternative?

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## Head & Neck Cancer Case 3

A 70-year-old man presents with a history of pain in the right side of his throat for three months. On examination, a lesion on the right side of the tonsil is discovered. It is biopsied and found to be a moderately differentiated squamous cell carcinoma.

He undergoes CT scan of the neck, and is found to have a cancer at the base of the tongue, 4 cm in size, extending up to the right tonsil. There is no lymphadenopathy.

1. What risk factors would you inquire about that are more common in patients with a head & neck cancer?
2. What is the relationship between HPV infection and head and neck cancers?
3. Approximately what is the ratio of men to women with a primary head and neck cancer?
4. What is involved in properly staging a patient with a head and neck cancer? Should the oral cavity and pharynx be investigated? If so, why?
5. Does the fact that he does not have any lymphadenopathy influence what treatment would be appropriate for this patient?

This patient was offered radiotherapy.

6. What acute and long term toxicities would you expect to occur in this patient population?
7. What is the incidence of hypothyroidism in patients who have received external beam radiation for a head and neck primary cancer? How would you screen these patients for hypothyroidism?
8. If this patient was a smoker, and continues to smoke while receiving radiation, are his response rate and/or survival affected?
9. What would be considered appropriate follow-up with respect to the frequency of visits and what, if any investigations?
10. What is the likelihood of local recurrence?

At his one-year follow-up visit, this patient complains of fatigue, anorexia with weight loss of 5 kilograms and shortness of breath on exertion.

11. How is the prognosis after recurrence affected if his tumor is P16 positive?

His staging investigations confirm 2 lung metastases each measuring less than 3 cm. Blood work is within normal limits. There is no evidence of disease elsewhere. He has no other co-morbid conditions.

12. What treatment options are available to him at this time?
13. Would this patient be appropriate to consider for a clinical trial?
14. How would his treatment options be affected if he had other co-morbid illnesses, such as poorly controlled insulin-dependent diabetes and a history of ischemic heart disease?

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## Head & Neck Cancer Case 4

Mr. C. is a 65-year-old man who presented to his family doctor with a six-week history of pain in his left ear and throat. He was referred to an ENT specialist and found to have a large ulcerating mass in the left pyriform fossa, which on biopsy was found to be a poorly differentiated squamous cell carcinoma.

On physical examination no enlarged nodes are detected. The patient's complete physical examination is normal.

1. What investigations are needed to help delineate the extent of the patient's disease?

CT reveals a lesion in the left pyriform sinus invading the left aryepiglottic fold, extending to the subglottic trachea, and involving the left thyroid cartilage and left hyoid bone. Bilateral lymph nodes are suspicious for metastases.

2. What stage of disease does this patient have? (assume positive nodes)
3. What treatment option(s)/strategies are available to this patient from the perspectives of chemotherapy, radiotherapy and surgery?

Mr. C. was offered laryngectomy, bilateral neck dissection and post-operative combined modality therapy in the form of concurrent platinum-based chemotherapy and radiation.

4. How is this treatment administered?
5. What side effects would you expect from this therapy?
6. Maintaining adequate hydration and nutrition during concurrent chemoradiotherapy is extremely difficult. How is this normally addressed?
7. If he declines this treatment, what would be an appropriate alternative?

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