The Management of Lateral Cystic Neck Swellings
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Introduction

Cystic swellings are a common presentation in the neck. They are usually investigated with a fine needle aspirate and an ultrasound scan may also be performed. On the anterior border of the sternocleidomastoid muscle, a branchial cyst is commonly suspected. Aspirate results may support this diagnosis with the presence of cholesterol granules. However, an important differential diagnosis may be overlooked. We present 3 cases where patients presented with lateral cystic neck swellings which were malignant cystic nodes from occult primaries.

Case Report 1

A 52 year old man presented with a painless 4cm cystic neck lump deep to the superior border of the right sternocleidomastoid muscle. He had recently suffered from an upper respiratory tract infection and felt that the lump was gradually increasing in size. He did not smoke or drink alcohol. Examination apart from the neck lump was unremarkable. A fine needle aspirate was performed and revealed some pus. An ultrasound scan of the neck was requested and showed a cystic lump with solid components. An excision biopsy was performed and histological examination confirmed the lump to be a metastatic squamous cell carcinoma lymph node. A MRI scan was arranged and direct laryngoscopy and biopsies were performed. A right tongue base primary was found and the patient received radiotherapy to the primary site and neck. He has been followed up for 8 years with no evidence of recurrence.

Case Report 2

A 57 year old woman presented with a left cystic neck lump in the jugulodigastric region which had been followed up for 1 year with no evidence of recurrence. She had had a similar lump 12 months ago which it was thought had resolved on antibiotics. ENT examination apart from the neck lump was unremarkable. She did not smoke or drink alcohol. Examination apart from a left lateral neck lump was unremarkable. 1 ml of straw coloured fluid was aspirated and cytological examination was suggestive of a benign epidermoid cyst. The patient was reviewed in 3 months when a pharyngoscopy & trucut biopsy was recommended. This confirmed a left tongue base squamous cell carcinoma and a metastatic neck node. A radical neck dissection was performed and the patient is undergoing chemoradiation for the neck and primary site.

Case Report 3

A 47 year old woman presented with a painless 2cm left lateral neck lump. She was a non smoker. She had had a similar lump 12 months ago which it was thought had resolved on antibiotics. ENT examination apart from the neck lump was unremarkable. A fine needle aspirate was performed and cytological examination was suggestive of a benign epithelial cyst. The patient was reviewed in 3 months when a pharyngoscopy & trucut biopsy was recommended. This confirmed a left tongue base squamous cell carcinoma and a metastatic neck node. A radical neck dissection was performed and the patient is undergoing chemoradiation for the neck and primary site.

Discussion

The above cases in common with those previously reported 1 demonstrate that occult primaries from the tongue base and tonsils can present with lateral cystic swellings in the neck. Over half of all asymmetrical lateral neck swellings represent either primary or secondary malignant disease 2. These swellings if cystic can be misdiagnosed as branchial cysts and as a consequence managed inappropriately with a delay in definitive treatment. The most common cause of a false negative cytology result when an adequate sample has been obtained is cystic degeneration in a metastatic lymph node 3. A repeat fine needle aspirate should be performed to increase the sensitivity of the technique when the initial sample is inadequate, inconclusive or suggestive of a benign condition although repeat fine needle aspiration cytology will again not be 100% sensitive in diagnosing malignant cystic swellings and a high index of suspicion should be maintained.

An open excision biopsy as in case 1 should be avoided as this is thought to carry a higher risk of treatment failure, wound complications, regional neck recurrence, and distant metastases than when no open biopsy prior to definitive treatment is performed 4. The risk of a lateral cystic neck swelling representing a metastatic lymph node is significantly higher if the patient at presentation is over 40 years old 5. We would therefore recommend that all lateral cystic neck swellings particularly in this age group should be viewed with a high index of suspicion.

References

4. Delays in initiating treatment for metastatic disease can affect the patient’s prognosis. In our series an important factor was the age of the patient at presentation. Patients above 40 years old with a lateral cystic swelling were more likely to have a metastatic cystic swelling.
5. The above cases in common with those previously reported 1 demonstrate that occult primaries from the tongue base and tonsils can present with lateral cystic swellings in the neck. Over half of all asymmetrical lateral neck swellings represent either primary or secondary malignant disease 2. These swellings if cystic can be misdiagnosed as branchial cysts and as a consequence managed inappropriately with a delay in definitive treatment. The most common cause of a false negative cytology result when an adequate sample has been obtained is cystic degeneration in a metastatic lymph node 3. A repeat fine needle aspirate should be performed to increase the sensitivity of the technique when the initial sample is inadequate, inconclusive or suggestive of a benign condition although repeat fine needle aspiration cytology will again not be 100% sensitive in diagnosing malignant cystic swellings and a high index of suspicion should be maintained.
6. An open excision biopsy as in case 1 should be avoided as this is thought to carry a higher risk of treatment failure, wound complications, regional neck recurrence, and distant metastases than when no open biopsy prior to definitive treatment is performed 4. The risk of a lateral cystic neck swelling representing a metastatic lymph node is significantly higher if the patient at presentation is over 40 years old 5. We would therefore recommend that all lateral cystic neck swellings particularly in this age group should be viewed with a high index of suspicion.